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XXXIII National Congress of the Spanish Society of Internal Medicine (SEMI)

Madrid, 24th–27th October 2012

ORAL COMMUNICATIONS AND POSTERS

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ORAL COMMUNICATIONS

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Infectious diseases

A-16
CLINICAL EVALUATION OF ESTABLISHED AND NOVEL BIOMARKERS FOR PREDICTION OF POSITIVE BLOOD CULTURES IN SYSTEMIC INFLAMMATORY RESPONSE SYNDROME

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Objectives: Sensitive biomarkers for early prediction of positive blood cultures in patients with SIRS are urgently needed to provide valuable information for decision-making in the very early onset of the clinical setting. Soluble urokinase plasminogen activator receptor (suPAR) levels reflect inflammation and elevated suPAR levels are found in several infectious diseases. We will evaluate diagnostic potential of suPAR in patients with SIRS and compare results to markers routinely used (PCT, IL-6 and CRP).

Material and method: A total of 132 patients with SIRS were included. In 55 patients blood cultures had resulted positive (Study group 1: causative pathogens, Staphylococcus aureus, Streptococcus spp.; Study group 2, causative pathogens gram-negative bacteria) and 77 patients had negative blood culture results (control group). Simultaneously with blood cultures suPAR, C-reactive protein (CRP), procalcitonin (PCT), interleukin-6 (IL-6) and white blood count (WBC) were determined.

Results: Markedly elevated suPAR levels were found for the SIRS collective (mean 8.0249 (SD ± 3,783) when compared to values previously published for healthy controls (median 3.38; IQR 2.75-4.30 ng/mL). SuPAR values were significantly higher in study group 1 (n = 15, median 8.11; IQR 5.78-15.53; p = 0.006) and study group 2 (n = 40, median 9.62; IQR 6.52-11.74; p < 0.001) when compared with the control group (n = 77, median 5.65; IQR 4.30-7.83). ROC curve analysis revealed an AUC of 0.726 for suPAR in differentiating SIRS patients with septicaemia from those without. The biomarkers PCT (group1, p = 0.001; group2, p = 0.002) and IL-6 (group 1, p < 0.001; group 2, p = 0.017) showed comparable results, while CRP and WBC failed to predict septicaemia.

Discussion: Results may indicate that suPAR, IL-6, and also PCT seem to have a higher potential in predicting bacteremia than CRP and WBC. For PCT and IL-6 this may in particular apply for bacteremia by S. aureus or Streptococcus spp. as both parameters were significantly higher when bacteremia was caused by these organisms. suPAR on the other hand seems to have potential to predict also gram-negative bacteremia, in which suPAR seems to be superior to the comparators.

Conclusions: Preliminary results suggest that suPAR may help predicting bacteremia in clinical routine.

A-28
METABOLIC SYNDROME AS PROGNOSTIC FACTOR IN COMMUNITY-ACQUIRED PNEUMONIA

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Objectives: The metabolic syndrome has been identified as a multiplex risk factor for cardiovascular disease, associated with

poor prognosis in many pathological processes. To date, the consequences of metabolic syndrome on the outcome of infectious diseases have not been extensively investigated. We aimed to evaluate the impact of metabolic syndrome on the etiology, the mortality and other outcome parameters in patients admitted with community-acquired pneumonia (CAP).

Material and method: This prospective observational study was performed at the University Arnau de Vilanova Hospital in Lleida (Spain) between January 2008 and March 2010 and includes all consecutive non-immunocompromised patients over 18 years old hospitalised for CAP. Risk factors from the National Cholesterol Education Program Adult Treatment Panel III 2001 (NCEP-ATP III) were used to categorize patients as having metabolic syndrome. Other well-recognized prognostic factors were simultaneously collected from patients. Blood, sputum and pleural fluid cultures, antigen detection tests for Streptococcus pneumoniae and Legionella pneumophila and serological tests were used to determine the etiology of cases. Univariate analysis were employed to evaluate the association between metabolic syndrome and outcome, including the following parameters: mortality during admission, mortality at 30 days, global mortality, exacerbation of underlying diseases during admission, development of empyema, admission to the Intensive Care Unit and hospital readmission after discharge. Multivariate analysis, by using the logistic regression model, was employed to evaluate the relation between metabolic syndrome and mortality during admission. Continuous variables were recategorized into binary factors using the most discriminant cut-off point. Results of multivariate analysis were reported as p values and 95% confidence intervals. Statistical significance was set at $p < 0.05$.

Results: A total of 296 cases were enrolled in the study. The mean age of patients was 64 years and 66% of them were males. The prevalence of metabolic syndrome among patients was 38.5%. Univariate analysis showed that metabolic syndrome was significantly associated with the following outcome variables: mortality during admission ($p = 0.001$), global mortality ($p = 0.009$) and exacerbation of underlying diseases during admission ($p = 0.016$). Spectrum of pathogens causing pneumonia did not appear related to the presence of metabolic syndrome, being S. pneumoniae the most common pathogen in both subgroups of patients. The following variables were evaluated in the multivariate analysis as potential prognostic factors for mortality during admission: metabolic syndrome, respiratory rate (> 30 cycles/minute), confusion, septic shock, oxygen saturation (< 88%), $PaCO_2$ (> 50 mmHg) and systolic blood pressure (< 90 mmHg). The metabolic syndrome ($p = 0.010$, 95%CI 2.54-1003.05) was selected as an independent prognostic factor for mortality. Other prognostic factors, identified in this multivariate analysis, were low systolic blood pressure ($p = 0.044$, 95%CI 0.94-0.99), tachypnea ($p = 0.021$, 95%CI 1.39-58.28), low oxygen saturation ($p = 0.035$; 95%CI 1.15-46.36) and confusion ($p = 0.021$, 95%CI 1.44-81.74).

Conclusions: About 40% of patients admitted with CAP had metabolic syndrome. This fact conducted to an increased in-hospital and global mortalities, increased risk of exacerbation of underlying diseases and readmission rate after discharge in univariate analyses; however, no impact was observed on the etiology. Metabolic syndrome remained as an independent risk factor for mortality during admission in the multivariate analysis. In summary, our study suggests that the metabolic syndrome could be a relevant prognostic factor in hospitalised patients with CAP.

A-49
HOME INTRAVENOUS ANTIMICROBIAL TREATMENT OF HEALTH-CARE-ASSOCIATED INFECTIONS IN HOSPITAL AT HOME UNITS RESULTS FROM A PROSPECTIVE MULTICENTRIC REGISTRY IN SPAIN

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Objectives: To communicate the characteristics of Health-Care-Associated infections (HCAI) treated in the Hospital at Home Units (HHU) of Spain according to data obtained from the Spanish prospective multicenter TADE Registry. To compare such results with those of community acquired infections included in the same registry.

Material and method: 168 episodes of HCAI treated at HHU included in the prospective multi center TADE registry for an 11 months period (July 2011-May 2012). The location of the infection was analyzed, the causative microorganism, antibiotic sensitivity, the treatment applied and clinical and microbiological outcome. The data were compared with the 510 community acquired infections included in the registry during the same period of time.

Results: The HCAI summed 24.7% of the infections treated at HHU (168/678). Most of the patients admitted in HHU came from a hospital ward (82%), being internal medicine the most frequent origin (45%). The most frequent types of infections being: urinary (26%), skin and soft tissues (17%), respiratory (16%), intra abdominal (15%), and primary bacteremias (14%). The causal agent was identified in 79% of the cases; the most frequently isolated were: Escherichia coli (31; 11 of this with ESBL), Staphylococcus spp. (24; 10 of this methicilin resistant), Pseudomonas spp (21), Enterococcus spp. (19) Klebsiella spp (13) and funghi (10). The most extensively used antimicrobials were: ertapenem (35), piperaciline-tazobactam (25), ceftriaxone (21), daptomycin (12), vancomycin (10) and ceftazidime (9). In 27% of the cases elastomeric devices were used for the infusion and electronic bombs in 24%. In 75% of the cases a peripheral venous catheter was used, in 17% a peripheral insertion central venous catheter and in a 10% central venous accesses of central insertion. The treatment period was 11.8 ± 11.5 days (1-84), being able to complete an 85% of the prescribed treatments. In 86% of the cases healing or improvement was obtained. In 20 cases (12%) readmission to conventional hospitalization was needed, and four (2.3%) patients died at home. The community acquired infections treated at home preferably used ceftriaxone (155, 30%), being the treatment period substantially shorter (10.1 ± 8.2 d) and needing less readmission (5.4%).

Discussion: The HCAI have become a more and more frequent problem meaning an increasing expense due to necessary hospital admissions as well as augmenting isolation problems. The treatment at home of these infections has become frequent in Spain by HHU. In most of the cases the evolution is favorable although the treatment period is longer and the failure rates and readmission are higher than in community acquired infections.

Conclusions: The treatment of HCAI means a fourth part of the intravenous antimicrobial home treatments in Spain. Although the evolution of these is less favorable than that of community acquired infections, the home treatment of these processes is a safe enough measure so as to be recommended in specialized Hospital at Home Units.

A-51
HOME ANTIBIOTIC TREATMENT OF PATIENTS WITH FEBRILE NEUTROPENIA

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Objectives: Patients with febrile neutropenia traditionally require in-hospital intravenous antibiotic treatment because of the risk of serious complications and associated mortality. In a subgroup of these patients who are considered 'low risk', however, treatment in the outpatient setting may be considered. One of such alternatives to hospital admission is the hospital-at-home program (HaH). The aim of this study is to evaluate the efficacy and safety of HaH program in the case of febrile neutropenia and to determine the factors associated to poor prognosis in these patients.

Material and method: 60 cases of patients with febrile neutropenia included in our HaH program between March 2007 and October 2011 were revised. Data were obtained from the data base of the HaH program of the Integrated Care Unit (Medical and Nursing Direction, Hospital Clínic Barcelona) and from clinical history files of each patient. Poor prognosis was defined as a clinical course leading to Emergency Department (ED) visits, hospital readmission or death during the 30 days following HaH discharge. Statistical analyses were performed by means of Fisher's exact test, Student's t test and logistic regression analysis using the software IBM SPSS Statistics version 20.

Results: There were 35 female and 25 male patients included in the study. Their mean age was 59.7 years (SD 10.9). 81.7% were referred to the HaH program by the Onco-Hematology Department and 18.3% were admitted directly from the ED. 20 patients had lung cancer, 22 had breast cancer, 9 had cancer of the urogenital apparatus, 3 had lymphoma and 6 had other miscellaneous conditions. At admission median C-reactive protein (CRP) level was 6.5 mg/dl and mean absolute neutrophil count (ANC) was 581.3 cells/µL (474.7); at discharge these values were 2.7 mg/dl and 5011.9 cells/µL (SD 4996.5) respectively. 91.7% of the patients received intravenous antibiotic, 9.1% of these in form of continuous infusion, being Ceftriaxone and Ertapenem the most frequently used antibiotics. Microbiological evidence of infection was found in 11 cases, being E. coli the most frequent causative organism (5 cases). Median length of HaH stay was 6 days. 14 patients (23.3%) had to visit the ED again and/or needed hospitalization within 30 days after HaH discharge, one of whom died during hospital stay. By logistic regression analysis we found that a higher CRP level at HaH admission is a factor independently associated to this clinical course (OR 1.115 95%CI 1.010 to 1.232).

Discussion: Patients with febrile neutropenia associated to anti-tumor chemotherapy are prone to lack clear infectious focus and to have sterile cultures, hence the indication of broad-spectrum antibiotic therapy. Complications are not uncommon either in this collective. However, HaH has proved to be a valid alternative to hospitalization of selected low-risk patients. Almost a quarter of the patients of this study had to consult a doctor again within 30 days of HaH discharge. High CRP levels indicate more severe infection or increased inflammatory response and are known to be associated to poor outcome in febrile neutropenia episodes. CRP has also proven to be a negative prognostic factor in various malignancies. The relatively low sample size of this study has been a factor limiting the statistical power of the analysis.

Conclusions: Hospital-at-home is a good alternative to hospitalization in the management of cancer patients with low-risk febrile neutropenia. High CRP level at admission was a factor associated to poor prognosis in a 30-day follow-up after HaH discharge.

A-55
STUDY OF COMMUNITY-ACQUIRED BACTEREMIA IN AN EMERGENCY ROOM FROM WHOM TO DRAW BLOOD CULTURES?

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Objectives: The decision of whom to draw blood cultures from in the Emergency Room (ER) is not resolved. Our objective was to analyze the predictors of bacteremia in the ER and establish a clinical prediction model (CPM) of bacteremia.

Material and method: Cross sectional study with prospective collection of variables and compared against microbiological patterns. Consecutively included patients older than 13 years from whom blood cultures were drawn over a period of 24 months. Clinicians were asked, pre-test, to predict the probability of positive blood culture. CPM has been developed that allowed us to stratify the study population into groups with different risks of bacteremia. The significant variables in univariate analysis were entered into a multiple logistic regression model with stepwise exclusion, using the existence of bacteremia as the dependent variable. After logistic regression to identify independent predictors of bacteremia, a score was assigned to each variable depending on the odds ratio of bacteremia in the multivariate analysis.

Results: We analyzed 693 patients of whom 149 had bacteremias. The variables associated with the presence of bacteremia in the univariate analysis were: diabetes, taking antibiotics before collection of blood culture, the probability pre-test before the extraction of the blood culture, the percentage of neutrophils greater than 80%, systolic blood pressure below 90 mmHg, age, platelets, fibrinogen and C-reactive protein (CRP). In multivariate analysis, the variables independently associated with the diagnosis of bacteremia were: diabetes (OR: 2.17, 95%CI: 1.16-4.07; p = 0.016), taking antibiotics before the blood culture (OR 0.16, 95%CI: 0.08-0.33; p = 0.00001), having more than 80% neutrophils (OR 3.4, 95%CI: 1.88-6.28), p = 0.001), presenting a onco-haematological disease (OR 1.72, 95%CI: 0.98-3.02; p = 0.058), age/10 (OR 1.16, 95%CI: 1.02-1.31; p = 0.023) and increased plasmatic fibrinogen/100 (OR 1.2, 95%CI: 1.08-1.33; p = 0.0005). The model identified four groups with an increased likelihood of bacteremia. A score less than 0 points the prevalence of bacteremia was 7.4%, between 0 and 25 points from 18.9%, between 26 and 35 points from 36.4%, and more than 35 points the prevalence was 48.6%. The ROC curve in our model was 0.75 (95%CI, 0.70 to 0.80). Using a cutoff in the model of -10 points, we obtain a sensitivity of 98.4%, a specificity of 25.8%, negative predictive value of 97.4, positive predictive value of 36% and negative likelihood ratio of 0.062. With this cutoff point 18.6% of blood cultures performed in the ER could be avoided.

Discussion: The ROC curve of our clinical prediction model is not satisfactory. With a cutoff point lower than -10 it is possible to prevent the extraction of blood culture from a significant percentage of patients. The model is especially useful in patients taking antibiotics and attending the ER with suspected bacteremia.

Conclusions: Age, onco-haematological disease, diabetes and taking antibiotics before blood culture extraction, increased fibrinogen and increasing age, behave as clinical and epidemiological variables that independently predict bacteremia. The clinical prediction model would avoid the extraction of blood culture for people with little likelihood of bacteremia.

A-77
OBSERVATIONAL STUDY TO EVALUATE THE NEPHROTOXICITY OF DAPTOMYCIN AND VANCOMYCIN

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Objectives: Progressive loss of sensitivity to vancomycin by Staphylococcus aureus (SA) has been related to a significant increase of mortality in Staphylococcal bacteremia, especially when MIC90 values are > 1 ug/ml. In order to avoid this situation, current guidelines recommend higher doses of vancomycin until a valley concentrations in serum of 15-20 mg/dl were achieved. This practice carries an increased risk of nephrotoxicity which in turn worsens prognosis of infection and increases healthcare costs. We present a retrospective study to evaluate the nephrotoxicity of vancomycin compared to daptomycin treatment in patients with Gram-positive cocci infections.

Material and method: Multicenter, retrospective and observational study in a cohort of hospitalized patients with Gram-positive cocci infections treated with vancomycin or daptomycin, according to clinical practice. Patients were compared 1:1 by age, comorbidity, renal function and antibiotic therapy. Data were obtained from medical records. Differences between treatment groups were assessed using the Mann-Whitney U test for continuous variables and the Chi square and Fisher tests for categorical variables. In order to determine the risk factors to develop nephrotoxicity a multiple logistic regression was accomplished.

Results: A total of 133 evaluable patients were included (62 with daptomycin and 71 with vancomycin), 85 (63.9%) males, with a mean (SD) age of 65.8 (15.2) years. The microorganisms more frequently isolated were coagulase-negative staphylococcus (CNS) 43 (32.3%), meticillin-resistant S. aureus (MARSA) 39 (29.3%) and Enterococcus spp 24 (18%). The most common infectious were bacteremia 40 (30%), followed by osteoarticular infections (OAI) 31 (23.3%), skin and soft tissues infections (SSTI) 28 (21.1%) and endocarditis 16 (12%). The OAI, SSTI and endocarditis were more frequent in the daptomycin group. The nephrotoxicity rate was significantly higher in patients treated with vancomycin than daptomycin (p = 0.0058). Vancomycin had to be removed more times than daptomycin due to its nephrotoxicity (p = 0.0072). Vancomycin was an independent predictive factor of nephrotoxicity, along with age and endocarditis as type of infection.

Conclusions: Vancomycin is more nephrotoxic than daptomycin and showed to be an independent predictive factor of nephotoxicity development, which could influence the prognosis and increased hospital stay.

A-93
SYPHILIS IN HIV PATIENTS THINK AGAIN ABOUT AN OLD DISEASE

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Objectives: An increase in the incidence of Syphilis has been detected in HIV patients. Our main goal was to analyze whether the incidence of syphilis has increased among HIV population, as well as an evaluation of these patients' diagnoses through a quality study at our hospital.

Material and method: An ambispective study of cohorts. Phase I Retrospecive (2000-2009). A study has been carried out in every HIV patient for: the number of (luetic serology), the incidence, its treatment and the number of lumbar punctures performed. Furthermore, patients with neurosyphilis were studied together with their progress. Phase II Prospective. (January 2010-December 2011), in which syphilis serologies were requested of every HIV patient treated at our Hospital and lumbar puncture was also performed on HIV patients with late latent lues (those who had not been previously treated) regardless of CD4 cells or RPR status.

Results: Phase I: 564 patients were studied. 73.5% were male with a median age of 38. (IQR: 33-43). The median follow up was 25.0 months (IQR: 6.0-81.9). The median blood samples taken (in which we measured HIV viral load and CD4 lymphocytes) during that period was over 6 (IQR: 2-16). No syphilis serology was performed on 48.9% of the patients. 43.3% of the patients in general had at least one syphilis serology performed on them, whilst 8.0% had two or more /serological tests. The rate of luetic serologies requested was 0.1887 patient/year. Of the 289 patients, who had syphilitic serology data available, 23 patients (8.0%)were positive Lumbar puncture was performed on 9 patients, of whom 5 had neurosyphilis criteria (at least two out of the three criteria: high level of proteins (> 45 mg/dL), cells (> 5 cells/ml) or positive VDRL). Phase II: 251 syphilis serologies were requested of HIV patients, of which 31 were positive (12%). Nineteen of these 31 patients were new syphilis cases, (they had not been previously diagnosed). Of the 19 HIV patients who had been diagnosed, 3 of them had re-infection in the last two years. Lumbar puncture was performed on 8 of the 31 patients with syphilis (23%), one of them fitted neurosyphilis criteria, and other had a doubtful case. The annual incidence of syphilis cases in HIV patients has increased by 6.41 times in the past two years, compared to the incidence during Phase I.

Discussion: We have found an increase in the rate of lues incidence in recent years. Although the incidence has gone up, the rate of syphilis serology performed has been higher in the Phase II period. This could bias our results. We think also that the neurosyphilis criteria are inaccurate and also controversial. In fact only 2 people in both periods had a positive VDRL. Further research has to be carried out to know who needs to undergo a lumbar puncture.

Conclusions: Syphilis prevalence is not negligible in HIV population. In recent years, there has been a remarkable increase in the number of new cases of Syphilis diagnosed of in HIV population, as well as some cases of re-infection. Given the simplicity of the treatment and the serious consequences of misdiagnoses, it is important to insist on performing regular serologies in asymptomatic patients.

A-109
PET-CT WITH 18F-FLUORDESOXYGLUCOSE IN PATIENTS WITH FEVER OF UNKNOWN ORIGIN

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Objectives: To evaluate the usefulness of PET-CT in detecting the cause of fever of unknown origin (FUO).

Material and method: We evaluated 27 patients (mean 67y; range 12-88, 15 women, 12 men) in search of focus in the context of prolonged fever (T > 38.3 ºC, no diagnosis after an appropriate

inpatient or outpatient evaluation for 3 weeks, and imaging tests, microbiological and biochemical inconclusive). All patients underwent a whole body PET-CT (Gemini TF hybrid scanner). The diagnostic yield of PET-CT was assessed after other complementary diagnostic examinations or follow-up.

Results: Sixteen patients presented hypermetabolic lesions in PET-CT. In 12 of them the scan guided toward a likely fever outbreak (confirmed to be the cause of fever) in lymph nodes (2 patients with non Hodgkin lymphoma), 2 patients with neoplasms (lung cancer and unknown origin carcinoma), vasculitis (2 patients), pneumonia (3 patients), spondylodiscitis and cholangitis (2 patients). In the remaining 4 patients, PET findings did not confirm the aetiology of FUO showing nonspecific lymphadenopaties. In 11 patients, no abnormal 18F-FDG findings were seen and scans could not guide toward a likely cause of the fever. Six of them had a final diagnosis (2 urinary infections, 1 pneumonia, 1 bacteremia, 1 adult Still disease and 1 Sjögren syndrome). In 5 patients with negative PET either self-limited fever or no other findings were detected in subsequent follow-up after 6 months. Overall results shown a sensibility of 44% (12/27 patients) in detecting the cause of FUO in this series.

Conclusions: PET-CT scans were useful in order to diagnose the cause of FUO in a high percentage of patients. Negative scans had a high negative predictive value (self-limited fever) and allowed to exclude serious pathologies as neoplasms or vasculitis.

A-129
ASSOCIATION BETWEEN USE OF BROAD SPECTRUM ANTIBIOTIC AND SUBSEQUENT ISOLATION OF MULTIRESISTANT ACINETOBACTER BAUMANNII: A CASE-CONTROL STUDY IN A HOSPITAL POPULATION

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Objectives: To evaluate broad spectrum antibiotic therapy with meropenem and piperacillin-tazobactam as risk factors for Acinetobacter baumannii infection.

Material and method: Cross-sectional case-control study, with retrospective data collection. We studied all individuals with isolation of multidrug resistant Acinetobacter baumannii (MDRAB) in the Prof. Dr. Fernando Fonseca Hospital (HFF) in 2010. We calculated the incidence of isolates of MDRAB in 2010 per Medical and Surgical wards and Intensive Care Units (ICU) and as a control used a proportional stratified sample per ward for a 1-B = 80% (432 of a total of 39,730 patients admitted were selected for controls) We compared the proportion of patients with MDRAB isolation among patients receiving broad-spectrum antibiotic (AB) therapy with meropenem (MP) and/or piperacillin-tazobactam (PT) in both the overall patient population and per ward. Age, gender, Charlson score, invasive procedures and prior infection were compared among patients with Acinetobacter isolation and the control sample. Statistical significance was defined as a = 0.05 and a CI of 95%.

Results: A total of 112 patients were included: surgical (14%); medical (61%) and ICU (24%). Mean age was 69 (15-99), with 50% male. Global MDRAB incidence was 0.28% (Medical - 0.63%; Surgical - 0.066%; ICU - 6.8% ICU). The incidence of MDRAB was significantly higher amongst patients who recieved MP or PT when compared with other patients: $\chi^2 = 273.5$; df = 1; $p < 0.001$; OR 16.3 (10.53-25.33) for MP and $\chi^2 = 142.0$; df = 1; $p < 0.001$; OR 9.10 (5.91-14.01) for PT. These findings were valid when we analyzed all the groups and when we compared the patient admitted to the surgical ($\chi^2 = 53.45$; df = 1; $p < 0.001$; OR = 9,101 (5.91-14.01) for MP and $\chi^2 = 71.19$; df = 1; $p < 0.001$; OR = 28.2 (9,74-81.58) for PT) and medical wards ($\chi^2 = 63.82$; df = 1; $p < 0.001$; OR = 7.41 (4.25 -12.91) for MP and $\chi^2 = 8.98$; df = 1; $p < 0.003$; OR = 2.61 (1.42-4.79) for PT). For patients admitted to the ICU, the MDRAB isolation was independent of previous MP or PT exposure. When patients treated with MP were compared with those treated with PT, the incidence of MDRAB was significantly higher in the MP group ($\chi^2 = 4.195$; df = 1, p = 0.04. OR = 1.81 IC (1.06-3.09)). There were no statistically significant differences between age, Charlson score, invasive procedures and prior infection between patients with MDRAB isolate and the control group, both in the overall population and by wards.

Discussion: The broad-spectrum AB proved to be a risk factor for MDRAB in our hospital. These results are independent of age, gender, comorbidity measured by Charlson index, invasive procedures and prior infection. This association holds for the medical and surgical patients, not having been found in patients admitted to the ICU, where the incidence of MDRAB is considerably higher. It must therefore be assumed that there are other important factors for the development of infection/colonization by MDRAB amongst these patients. When comparing administration of MP vs PT, therapy with MP was associated with a higher incidence of MDRAB.

Conclusions: Broad-spectrum AB therapy with either meropenem or piperacilin-tazobactan proved to be an independent risk factor for the development of infection/colonization by MDRAB in medical and surgical wards but not in the ICU patients.

A-175
CHARACTERISTICS OF THE SKIN AND SOFT TISSUE INFECTIONS WITH POSITIVE CULTURES FOR SPYOGENES

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Objectives: To describe epidemiology, clinical characteristics and prognosis of skin and soft tissue infections due to S. pyogenes in our setting.

Material and method: A retrospective review of Hospital Son Llàtzer admitted patients, from 2002 to 2011, with a diagnosis of skin and soft tissue infection (foliculitis, cellulitis, fascitis, abscesses, hidradenitis, furuncle, impetigo, gaseous and Fournier's gangrene) with least a positive isolate of S. pyogenes from local focus or blood cultures. Cases were extracted of the data base of diagnostic codification of Archive's and Clinical Documentation Department of the same Hospital.

Results: From a total of 1105 episodes in 945 patients with diagnosis of skin and soft tissue infections, in 34 (3.6%) cases a positive culture of S. pyogenes was obtained. That episodes were in women in 55.9% cases, with a median age of 51 (range: 1-91) years. In the majority of episodes 27 (79.4%) infection was community acquired. Main clinical presentation was cellulitis/erysipela in 26 (76.5%) cases, followed by abscesses in 6 (17.6%) with only 2 (5.9%) deep infections (miositis), mainly located in lower limbs, 18 (52.9%). Most important comorbidities were: HIV-infection in 7 (20.6%) cases, 10 (29.4%) patients were current drug users, liver disease in 9 (26.4%) and diabetes mellitus in 6 (17.6%). Eleven (32.4%) patients had received antibiotherapy in previous 6 months. In 23 (67.6%) patients a positive culture of the focus was obtained and 19 (55.9%) patients developed bacteremia, Monotherapy, in particular with penicillins or other beta-lactams, was the most used empirical treatment in 18 (52.9%) and 25 (45.4%) cases respectively, followed by clindamycin in 7 (12.7%) episode. Tygeciclin was only used in 1 case of miositis. A Change of treatment was performed in

16 (47.1%) episodes, after microbiological results in 10 (62.5%). As targeted treatment, monotherapy and therapy with 2 antibiotics were equally used in 7 (43.8%) episodes everyone. S. pyogenes was penicillin resistant in 3 (10.7%) cases. In 4 (13.3%) cases there was resistance to clindamycin, one of them was also penicillin resistant. In 11 (32.4%) patients it was necessary surgical debridement and the following complications were observed: severe sepsis in 8 (23.5%) episodes and shock in 7 (20.6%). Six (17.6%) patients died, 3 (8.8%) related to the infection.

Conclusions: In our setting skin and soft tissue infections due to S. pyogenes occur mainly in patients with comorbidities, especially HIV-infection, active drug abuse, liver diseases or diabetes. They are community acquired and cellulitis is the most frequent clinical entity. More than a half of patients developed bacteremia. Penicillins and other beta-lactams in monotherapy were the main antibiotics used as empirical treatment. Surgical debridement was needed in a high percentage of cases and systemic complications were frequently observed.

A-229
INCIDENCE OF STAPHYLOCOCCUS AUREUS BACTEREMIA IN A TERTIARY UNIVERSITY HOSPITAL IN MADRID IS SOMETHING CHANGING?

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Objectives: Staphylococcus aureus blood stream infections (BSI), especially methicillin-resistant (MR) strains, are a cause of high morbidity and mortality in hospitalized patients. Recent studies suggest a downward trend in BSI by these pathogens. The objective of our study was to analyze the changes in the epidemiology of health-care associated *Staphylococcus aureus* BSI in the past years in the different units of our tertiary University Hospital.

Material and method: There are several ongoing initiatives in our hospital to decrease catheter related infections and to emphasize the importance of hands hygiene for both medical and nursing staff (i.e. videos, protocols, courses, use of chlorhexidine instead of iodine, etc.). These initiatives were developed within the scheme called "Zero Bacteremia". We conducted the current study by retrospectively analyzing epidemiological and microbiological data of *S. aureus* BSI episodes registered in our hospital from July 2009 to December 2011. We included information about age, sex, date of episode, hospital unit where the blood culture was extracted and resistance to methicillin, all of which was enclosed in patient clinical reports and the Microbiology Department database. We used SPSS (v19) to analyze our results (Chi square). We calculated the cumulative incidence per semester as cases per 1,000 admissions and as cases per 1,000 in-hospital stays, using Epidat (v4) to compare our results. Statistical significance was set at $p < 0.05$.

Results: The Hospital 12 de Octubre is a tertiary hospital in Madrid with 1370 beds and an average of 42,105.6 admissions per year in the period analyzed (July 2009 to December 2011). There were a total of 272 episodes of *S. aureus* BSI: 85 detected in the Emergency Department, 29 in Intensive Care Units (ICU), 110 in medical wards and 48 in surgical wards. A total of 271 patients were included of which 192 (70.6%) were men, with a median age of 68 y/o. We found 78 (28.7%) cases of MR strains. Grouping our results by semesters, we compared the cumulative incidence obtained depending on where the patient was hospitalized. We have observed a decreasing cumulative incidence for S. aureus BSIs, which was statistically significant in the analysis of the global incidence decrease ($p = 0.042$), and when comparing the incidence drop in medical wards ($p = 0.011$). We observed a proportional decrease of methicillin resistant strains ($p = 0.041$).

Discussion: There seems to be a downward trend in the cumulative incidence of *S. aureus* BSIs in our hospital which is mainly due to the incidence fall in medical wards and ICUs. We could assume that the different strategies to prevent catheter related infections as well as hands hygiene implemented in the past years must have played a fundamental role in what we are observing. In accordance to previous studies we observe a decrease in the proportion of MR *S. aureus*.

Conclusions: The "Zero Bacteremia" plan has had a very positive impact in the decrease of *S. aureus* BSI in the ICUs. However, strategies to promote hands hygiene and peripheral and central lines care in other hospitalization units also seem to have had a relevant impact. These global care campaigns have shown to be effective and very useful to promote health care projects.

A-257
ADMISSION RED CELL DISTRIBUTION WIDTH AS A PROGNOSTIC MARKER IN COMMUNITY ACQUIRED PNEUMONIA

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Objectives: Red cell distribution width (RDW) reflects variability in size of circulating erythrocytes (anisocytosis). Recent data indicate that increased RDW is an independent predictor for mortality in cardiovascular diseases and pulmonary hypertension. The aim of this study was to evaluate the relation between admission RDW and in-hospital mortality or complicated hospitalization in patients with community acquired pneumonia (CAP).

Material and method: We performed a secondary analysis of prospectively collected data on 184 patients (106 men) diagnosed of CAP throughout 3 years. RDW, blood counts (hemoglobin, mean corpuscular volume, total leukocytes), arterial gasometry, serum glucose and creatinine were measured on admission. Markers of erythropoiesis (serum iron, transferring, ferritin), and nutritional and inflammatory markers (total cholesterol, albumin, C-reactive protein levels) were measured during the first week. Hematologic variables were determined by Cell-Dyn 3500 analyzer, and biochemical laboratory parameters by Roche Integra 800 analyzer. The normal range for RDW is 11.5 to 14.5%. Complicated hospitalization was defined as hospitalization longer than 10 days, which is the standard median length of stay for this condition, or admission to ICU. Binary logistic regression analysis was used for calculation of the odds ratio (OR) in univariate analysis to identify association between patients characteristics and complicated hospitalization or in-hospital mortality. Multivariate forward stepwise analysis was used to determine the independent prognostic factors. Statistical analysis was performed using SPSS 14.0.

Results: The mean age was 65 ± 16 years, the mean follow-up duration was 14 ± 6 days, and 23 patients died. Fifty one patients (27.7%) had complicated hospitalization. Among patients who died, 2 (8.7%) had normal RDW and 21 (91.3%) had RDW higher than 14.5% ($p < 0.001$). Among patients with complicated course, 43 of them (84.3%) had high RDW compared to 15 patients (11.3%) in the non-complicated group ($p < 0.001$). There was a significant positive association between high RDW and serum creatinine and CRP values, and a negative relationship with albumin levels. All variables associated to the combined end point (in-hospital mortality or complicated hospitalization) are shown in Table 1.

Discussion: RDW is a simple laboratory test that has been to be associated with higher mortality and adverse outcome in cardio

pulmonary diseases (1). The results of our study indicate that elevated RDW is also a risk factor for adverse outcome in CAP. The mechanisms underlying this association are poorly known, although RDW may be a surrogate marker for nutritional deficiencies or ongoing inflammation. (1. Patel KV, et al. Red blood cell distribution width and the risk of death in middle-aged and older adults. ArchIntern Med 2009; 169:515-523).

Conclusions: High RDW is a strong independent predictor of complicated hospitalization and mortality in patients with CAP.

Table 1 (A-257). Multivariate analysis for the combined end-point

	Coefficient	Adjusted OR	95% CI	p value
Age > 70 years	1.4	2.5	1.1-5.7	< 0.01
Creatinine > 1.6 mg/dl	1.3	2.3	1.1-5.4	< 0.01
RDW > 14.5	1.7	3.8	1.6-7.2	< 0.01

A-259
EPIDEMIOLOGICAL ANALYSIS OF PNEUMOCYSTIS JIROVECII PNEUMONIA CASES IN A TERCIARY HOSPITAL PRELIMINARY RESULTS

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Objectives: The introduction of highly active antiretroviral therapy (HAART) has resulted in better immune control to patient with human immunodeficiency virus infection (HIV) and consequently a decrease in both frequency and severity of opportunistic infections, including Pneumocystis jirovecii pneumonia (PcP). On the other hand, in the last few years it has been documented an increase in the cases of PcP in immunosuppressed HIV-negative patients which seen to have a more severe clinical course. The aim of this study was to evaluate the morbility and mortality of PcP in our hospital comparing clinical outcome of HIV-positive and immunosupressed HIV-negative patients.

Material and method: All cases of PcP admitted at Hospital Universitario Virgen del Rocío in Seville between January 2000 and December 2011 were retrospectively reviewed. Episodes were identified through a specific search in the CMBD database. Demographic, clinical and biological data from the clinical charts were recorded in a standardized case report form. Statistical analysis was performed using IBM SPSS Statistics version 19.

Results: A total of 218 cases of PcP were identified during the study period. The present analysis included the evaluation of the first 100 non-selected cases. Of them, 22 were excluded for not meeting criteria for PcP (clinical-radiological pattern compatible with PcP and/or microbiological Pneumocystis confirmation). Of the remaining 78 cases with confirmed PcP, 60 cases were found in HIV-positive patients (76.97%) and 18 (23.03%) in HIV-negative patients. Mortality in the HIV group was 20% (12 cases), but death was directly attributed to PcP in only 5 of these cases (8.33%). Mortality in HIV-negative group was 38.8% (7 cases), but death was directly attributed to PcP in only 4 of these cases (22.2%). The differences in mortality between groups were not statistically significant (p = 0.2313).

Conclusions: The study shows that HIV status remains the most common cause of PcP although 20% of PcP cases were found in HIV-negative patients. There was a trend for higher mortality among HIV-negative patients. The causes of this higher mortality could be the delay in diagnosis and treatment by clinicians that are not aware with PcP in HIV-negative patients or the absence of appropriate prophylaxis in this group of patients.

A-264
COMBINATION OF INTRAVENOUS AND NEBULIZED COLISTIN IN ACINETOBACTER BAUMANNII ERADICATION

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Objectives: Ventilator-associated pneumonia (VAP) by multidrug-resistant Acinetobacter baumannii (MRAB) has high mortality. Intravenous (iv) colistin has been related to nephrotoxicity and few studies have shown the efficacy of nebulized administration. This study evaluates the efficacy of combined iv and nebulized colistin compared to conventional iv administration in the eradication of MRAB from bronchial secretions of patients with VAP.

Material and method: Retrospective study of 52 ventilator-associated pneumonia by MRAB cases selected from ICU database, from 2007 to 2008. The control (C) group received iv colistimethate sodium (CMS) 62,000 IU/kg/day and the combined treatment (T) group was given the same protocol added by nebulized CMS 2 million UI bid. Inclusion criteria were diagnosis of VAP and isolation of MRAB on culture and antimicrobial sensitivity tests of bronchial secretions. Patients with other agents or insufficient data were excluded. The endpoints were microbiological eradication or persistence in bronchial secretions. The results were evaluated at days 7, 12, 17 and 21 of treatment, using statistical analysis with Chi^2 or t-Student tests, with 5% of significance, using SPSS software.

Results: After excluding 10 patients due to insufficient data or isolation of other agents, the remaining 42 patients were divided in C group with 28 (60.7%) and T group with 14 (33.3%) patients. 47.6% patients were females and 52.4% were males and the mean age was 72 ± 14 years. No significant differences were found regarding demographic features, admission diagnosis and clinical severity. Mean APACHE II score 31.2 ± 7.0 on ICU admission. At day 7 of treatment, 71.4% patients from T group exhibited MRAB microbiological eradication, compared to 46.4% patients of C group ($p < 0.002$). At day 12, 92.9% patients from T group achieved microbiological eradication. Beyond day 15, mean creatinine clearance 35 ml/min and 59 ml/min of C and T groups were statistically different. There were no serious adverse effects, except for 2 cases of bronchospasm after nebulized CMS, controlled with steroids and not leading to withdrawal. The overall mortality rate was 39.6% and the mean duration of ICU permanence was 36 ± 9 days, with no significant differences among groups.

Discussion: Colistin emerges as first-line drug for the treatment MRAB infections. Few studies used nebulized colistin alone to achieve its eradication. There was a statistically superior eradication rate using combined treatment at day 7 (71.4%), maintained at day 12 (92.9%), suggesting that this regimen allows better responses. Moreover, nebulized colistin may reduce the risk of nephrotoxicity, which was statistically relevant in the control group at 15 days of treatment. Although the duration and dosages of iv colistin did not differ significantly among groups C and T, these findings suggest a relationship between the rate of microbiological eradication and nephrotoxicity. None of the cases of bronchospasm following nebulization led to study withdrawal. Despite good results, effects on prognosis and mortality remain unclear. Other determinants beside APACHE II score, certainly affect clinical outcome, mortality and duration of hospitalization. The absence of clinical variables was a limitation. It is therefore essential to

conduct prospective larger trials in order to establish unequivocally the superiority of combined administration of nebulized and intravenous colistin in the treatment of ventilator-associated pneumonia by A. baumannii MR.

Conclusions: This study confirms that combined nebulized and intravenous colistin regimens are safe and effective treatments to achieve microbiological eradication of MRAB in patients with VAP, reducing nephrotoxicity of intravenous colistin in critically ill patients.

A-266
INFECTIVE ENDOCARDITIS IN INTRAVENOUS DRUG USERS IN RUSSIA: A NEW CHALLENGE IN THE WAY OF DRUG TRAFFICKING

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Objectives: Infective endocarditis (IE) remains a disease with considerable morbidity and mortality and evolving profile. IE has changed the character during recent decades in Russia. IE of intravenous drug addicts is a new challenge in the way of drug trafficking from Afghanistan to Europe involving Novosibirsk city area. The objective of study was to analyze the recent changes in clinical presentation and treatment of modern IE of drug users.

Material and method: Design: Retrospective observational cohort study conducted from January 2008 through December 2012 at Novosibirsk city among 300 intravenous drug users (morphine, hydromorphone, oxycodone, heroin, meperidine, pentazocine, desomorphine; the average age – 25.2 years) with IE. Clinical, microbiological and echocardiographic characteristics were examined in patients who fulfilled the modified Duke criteria for IE.

Results: The incidence of IE increased 10-fold, reaching 150 cases per 1 mln/year - increasing share of intravenous drug addicts. Early signs of the disease were fever, chills, weakness, sweating, chest pain, shortness of breath, coughing, swelling. All patients had primary form of IE and high activity of the process. Etiologically the change is characterized by a reduction of streptococci and a much higher incidence of staphylococci, gram-negative bacteria and other virulent organisms. Positive blood cultures were in 75% of patients. Causative agents were: S. aureus - in 50%, S. epidermidis - in 18%, S. haemolyticus - in 11%, S. intermedius – in 3%, Enterococcus faecalis - in 4%, E. coli - in 4%, Acinetobacter spp. - in 1%, Pseudomonas aeruginosa - in 2%, Corynebacterium pseudodiphtericum - in 1%, Candida albicans - in 2%, mixed (S. aureus and P. aeruginosa, S. aureus and Candida albicans, E.coli and P. aeruginosa, S. aureus and S. epidermidis) - in 4% of patients. Echocardiographic vegetations were revealed in 86% of patients: the tricuspid valve was affected in 52%, the mitral valve - in 23%, the aortic valve - in 19%, two valves - in 6% of patients. It was observed the lower incidence of classical clinical IE-features which were seen at the end of the last century: fever (50% versus 97%), sweats (57% versus 97%), splenomegaly (15% versus 90%), fingers clubbing (5% versus 35%). In all patients the clinical course of IE was with systemic affection of internal organs of thromboembolic, thrombohemorragic, microvascular and toxic genesis. Thus, anemia, toxic encephalopathy, were observed in 100%, infective hepatitis B and C - 70%, nephritis - in 70%, renal infarction - in 11% of patients, HIV infection and sexually transmitted diseases - in 30%. Lung affection was characterized by development of bilateral pneumonias with severe pulmonary insufficiency in 78%, lung infarctions - in 23%, pleurisies - in 13% of patients. Necrotic vasculitis of the lower extremities developed in 44% of patients. Etiotropic antibacterial chemotherapy often was successful. Chemotherapeutic eradication of staphylococci with vancomycin or daptomycin, 6-10 mg/kg/day for 4 weeks, gram-negative bacteria with ceftazidime and amikacin or meropenem, was obtained in 85% of IE patients. Fungal IE was treated with amphotericin B, fluconasol and valve replacement. Mortality at discharge was 25%, at six months 35%.

Discussion: Russia has become an absolute world market for opiates in the world (20%). From Afghanistan to Russia smuggled at least 12 tons of heroin - a 3 billion (!) single doses. IE is the most serious infection of intravenous drug users. Every day 100 people die from overdoses, 30 thousand/year, which is two times more than a decade of war in Afghanistan.

Conclusions: Drug addiction - it is a civilizational challenge to Russia. IE of intravenous drug users is characterized by primary form, high activity, severe course, multivalvular and polyorganic affection, high mortality rate. Avalanche growth of drug addiction and related diseases makes it necessary to focus health care, government and society to solve this problem.

A-267
PROSPECTIVE STUDY OF BACTERAEMIA DUE TO STAPHYLOCOCCUS AUREUS IN A TERTIARY HOSPITAL

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Objectives: To describe the epidemiology, risk factors, clinical characteristics, and influence of appropriate antibiotic therapy on outcomes among patients with S. aureus bacteremia in the University Hospital of Salamanca.

Material and method: We performed a prospective analysis of all episodes of S. aureus bacteremia between June 2010 and March 2012, which were identified through the Microbiology Department. Epidemiological, clinical and microbiological data were recorded during hospitalization and patients were followed-up during admission to assess outcome of infection.

Results: During the study period 65 S. aureus bacteremias were recorded (41.0% men, mean age 76 years [interquartile range: 16-92]). Among them, 36 (55.4%) were community onset (CO) cases, 18 (27.7%) hospital onset (HO), and 11 (16.9%) health care-associated community onset (HACO). Twenty-four (36.9%) bacteremias were detected in Internal Medicine wards and 13 (20%) in the Nephrology Department. Leading comorbidities were chronic kidney disease (21, 32.3%) and chronic heart failure (18, 27.7%). Fifty-four patients (83.0%) had a Charlson index > 2 and 39 (60.0%) > 4. McCabe score was ultimately fatal in 44.6% patients and rapidly fatal in 4.6%. Thirty-five (53.8%) patients had urinary indwelling catheter and 15 (23.1%) had received prior steroid therapy. The focus of bacteremia was unknown in 20 cases (30.8%), respiratory in 16 (24.6%), vascular catheter related in 10 (15.4%), and skin and soft tissue in 4 (6.0%). Twenty (30.8%) of the isolates were resistant to methicillin-resistant S. aureus (MRSA) and the percentage of MRSA was 16.7% for HO bacteremia, 33.3% for CO bacteremia and 45.5% for HACO bacteremia. Eleven patients (16.9%) presented with septic shock and 20 (30.7) died during hospitalization (5 of them had MRSA).

Discussion: Bacteremia due to S. aureus have experienced a sharp increase in frequency in recent years, with significant morbidity and mortality, and there have also been several changes in clinical and epidemiological characteristics. In our series, we describe an elderly population with multiple comorbidities which may explain, at least in part, the high mortality described. Of note, more than half of bacteremia episodes were community-acquired, a worldwide growing trend.

Conclusions: MRSA bacteremia is a major problem and is associated with high mortality. Community-acquired bacteremia represents more than half of the cases in our setting.

A-271
ALLOGENEIC BLOOD TRANSFUSION IS A RISK FACTOR FOR DEEP WOUND INFECTION AFTER PRIMARY KNEE ARTHROPLASTY

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Objectives: To analyze preoperative and intraoperative risk factors for deep wound infection in patients with primary knee arthroplasty in the next 90 days after surgery.

Material and method: We reviewed consecutive patients that had undergone primary knee arthroplasty between March 2007 and October 2009 with an established prophylaxis protocol in a tertiary Hospital. Patients were followed up for 90 days after surgery in order to establish the presence of deep prosthetic joint infection. The following clinical and analytical variables were recorded: age, sex, body mass index (BMI), comorbidities, preoperative physical status classification assessed by the American Society of Anaesthesiologist (ASA) score, ischemia time during arthroplasty, postoperative fluid drainage, use of Redon (days), hemoglobin levels before surgery and after surgery, number of packed red cells transfused, C reactive protein and NNIS scale. In univariate analysis categorical variables were analyzed by the Chi-square test and Student's t test or Mann-Whitney U test were used for continuo's variables. A multivariate logistic regression analysis was performed to analyze independent risk factors related with deep wound infection. Variables associated with this outcome with p-value < 0.2 in univariate analysis, were included in the model. Statistical analysis was done with SPSS 19.1 and $p < 0.05$ was considered to be statistically significant.

Results: During the study period, 1331 consecutive patients undergoing primary knee arthroplasty were included. Deep wound infection was diagnosed in 32 (2.4%) patients. Mean age was 70.11 (standard deviation [SD] = 7.47) years and 53% of patients were female. Median (interquartilic range-IQR) time from surgery to infection was 25 (20 to 28) days; NNIS scale 50% was 0, median ASA score 2.25 (SD = 0.51) and BMI 33.58 (SD = 5.72) Kg/m^2. The most frequent isolated microorganism was Staphylococcus aureus (20, 62.5%) followed by coagulase-negative staphylococci (7, 21.9%), Enterococcus faecalis (4, 44.4%) and E. coli (3, 9.4%). After univariate analysis, variables associated with deep wound infection were female sex ($p = 0.021$), presence of diabetes ($p = 0.043$), cirrhosis ($p = 0.046$); American Society of Anaesthesiologists score III or IV ($p = 0.042$); higher BMI ($p = 0.006$), longer duration of limb ischemia ($p = < 0.001$); lower hemoglobin levels on the 4th day after surgery ($p = 0.046$) and need of transfusion ($p < 0.001$). Within each day, the first arthroplasty performed had a lower risk of infection than the others ($p = 0.024$). After multivariable logistic regression analysis, allogeneic blood transfusion was identified as an independent and significant variable associated with higher risk of deep wound infection at 90 days post total knee arthroplasty. Other variables identified as risk factors were, longer time of leg ischemia and BMI. Female sex and being scheduled for the first surgeries of the day were protective factors.

Discussion: Infection is the most devastating and expensive complication of joint arthroplasty and often requires a multidisciplinary approach. Few studies have focused on factors involved in deep wound infection after knee arthroplasty. In our study, allogeneic blood transfusion was identified as an important risk factor for deep wound infection but other studies have reported controversial results.

Conclusions: Allogenic blood transfusion was an important risk factor for deep wound infection within 90 days after primary knee arthroplasty in our setting.

A-274
ADHERENCE TO OPTIMIZATION PROGRAM ON ANTIMICROBIAL PRESCRIBING FOR ADMITTED PATIENTS FOR EMERGENCY DEPARTMENT

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Objectives: The antimicrobial therapy in infected patients is one of the most effective therapies in medicine. The gradual emergence of bacterial resistance against antimicrobial therapy can reduce this effectiveness. The infections caused by resistant germs are characterized by an increase in mortality. The inappropriate use of antimicrobial therapy is a major risk factor for infections with resistant bacteria. The target of this study is to evaluate the percentage of adherence to recommendations made by a team of experts in antimicrobial therapy (TEAT) after reviewing of the treatment in the third day of hospital admission after transfer from emergency room.

Material and method: Prospective study in a cohort of patients admitted from emergency room. TEAT reviews patients receiving antibiotics for restricted use (linezolid, daptomycin, tigecyclie, imipenem, meropenem, ertapenem or colistin) in third day of hospital admission. The study was carried out for 2 months in the H.U. Puerta de Hierro Majadahonda (November and December of 2011).

Results: One hundred and nine patients were analyzed of which 53.2% were male and 46.4% were women. The median age was 72.4 years and the average age was 76.8 years. Average stay in hospital was 9 days. The patients were admitted more frequently to internal medicine (46.8%), general surgery (13.8%), gastroenterology (10.1%), pneumology (7.3%), urology (7.3%) and oncology (5.5%). One hundred and twenty-seven infectious processes were reviewed (6 patients had 2 infections and 2 patients had 3 infections) of which 40.4% were respiratory, 28.3% were abdominal, 18.3% were urinary and 6.4% were cutaneous. Twenty-six percentage of infections were nosocomial. The antimicrobials for restricted use most frequently administrated were meropenem (63.3%), ertapemen (21.1%) and imipenem (11%). Other antimicrobials had a frequency < 1%. TEAT recommendations performed in 30.3% of cases. These recommendations were accepted in 36.4% of cases. The wards receiving more recommendations were gastroenterology (72.7%), pneumology (62.5%) and urology (50%). The departments that accepted higher percentage of recommendations were internal medicine (41.7%), gastroenterology (16.7%) and pneumology (16.7%).

Discussion: We found a better use of antibiotics from the emergency department, more than other series that considered 30-50% prescriptions in hospital as inadequate. It represented a recommendation in one out three patients admitted. Adhesion to the recommendations was almost in half of cases. The restricted use antibiotics were prescribed to severe ill patients on admission but only 26% of the cases were nosocomial infections. The cohort of patients studied was older (25^{th} percentile = 61 years), which partly justifies the severity of the patients on admission. The percentage of accepted recommendations were lower those reported in the literature but it seems enough to be efficient.

Conclusions: The prescription of antimicrobial therapy in patients admitted from emergency department was correct in a high percentage of patients. The adherence to program of optimization of antimicrobial therapy is moderate. The study of the patients admitted from emergency to a ward by TEAT is a strategy effective in optimizing the use of antibiotics, that could reduce the emergence of bacterial resistant, could reduce mortality associated to infections and also could allow a reduction in pharmaceutical spending. Larger sample sizes are needed to obtain more conclusive data.

A-289
CANDIDA BLOODSTREAM INFECTIONS IN A TERTIARY HOSPITAL CHARACTERISTICS OF PATIENTS IN THE INTERNAL MEDICINE SERVICE

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Objectives: To analyze clinical aspects of patients with Candida spp bloodstream infections (CBSI) in a tertiary hospital and to identify the relevant aspects of internal medicine patients.

Material and method: We conducted a systematic review of the medical records of patients with an episode of CBSI in a period of two years (May 2010 to April 2012) and compared the characteristics of internal medicine patients with those of patients in other medical and surgical services.

Results: 32 episodes of Candida BSI occurred in our hospital in the study period. The mean age of patients was 77.4 years (11 days-99 years), 50% men. Almost 60% of patients were admitted in medical services (79% in internal medicine, 15 patients); 8 patients (25%) were in surgical services, 3 in the intensive care unit and 2 in pediatrics services. The mean age of internal medicine patients was 83.4 years, significantly higher than that of patients admitted to others medical services (51.5 years) and higher than the median age of surgical patients (71.2 years). All patients had a predisposing factor for CBSI. Highlights the fact that all patients but 3 (90%) had received prior antibiotic treatment in the same admission with an average of 2.7 antibiotics per patient (1.7 in internal medicine and 3.1 in surgical services). Sixty five per cent of these patients received more than one antibiotic and 7 patients (24%) received more than 4 antibiotics. Five patients (15%) had received steroid treatment. In addition, 10 patients had solid organ tumors and 6 had undergone recent surgery. In our series only one patient was a recipient of a solid organ transplant (kidney in this case). In 9 patients (28%), fungemia were considered related to a catheter. In 26 patients a single species was isolated from culture. Candida albicans was the most frequently isolated species, 18 patients; C. guillermondi and C. tropicalis were isolated in 2 patients respectively and C. parapsilosis, C. glabrata and C. lusitaniae in one patient respectively. Six patients had two species of candida, being C. guillermondi the most frequently isolated in these cases (four patients). Twenty-six patients (81%) received empirical antifungal therapy. First-line treatment was fluconazole (57% of treated cases) followed by echinocandins (4 patients anidulafungin, 2 caspofungin and one micafungin). In 2 patients the initial treatment was performed with amphotericin B. Five of the six untreated patients were internal medicine patients: in 3 cases, blood culture results were received after the death of patients; in one case this no-treatment decision was due to patients' baseline situation and the other patient was asymptomatic. Twelve patients (37.5%) died. Mortality in the internal medicine patients was 60% (9 of 15 patients). Four of 9 patients who died in internal medicine did not receive antifungal treatment. Mortality among patients who received no antifungal treatment was twice that mortality of patients who received antifungal therapy (66.6% vs 30.7%).

Discussion: In our series we found a higher number of isolates of Candida guillermondi than usual and we are analyzing whether it is a pseudo-outbreak. The mortality in our hospital is similar to that described in other series.

Conclusions: Internal medicine patients with CBSI were older, more often did not receive antifungal treatment and had higher mortality than surgical and others medical patients.

A-311
OUTPATIENT INTRAVENOUS ANTIBIOTIC TREATMENT IN A HOSPITAL-AT-HOME SERVICE: A SERIES OF 595 CASES

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Objectives: We investigated the efficacy and safety of patients requiring intravenous antibiotic treatment admitted to hospital at home (HaH) program.

Material and method: 595 episodes of 424 different patients with an active bacterial infection requiring intravenous antibiotic treatment admitted in a hospital at home (HaH) unit between March 2007 and October 2011 were revised. Data were obtained from the database of the Hospital at home Unit of the Hospital Clínic Barcelona and from clinical history files of each patient. The statistical analysis was performed by means of Fisher's exact test, Student's t test and Chi-square analysis using the software IBM SPSS Statistics version 20.

Results: There were 365 male and 230 female patients included in the study, their mean age was 67.8 years (SD: 15.7). Medicine Emergency Department and Oncology were the two most common departments of origin (50.1% and 27.2% of patients, respectively). Mean time of stay in HaH was 6.57 days (R: 1-24). Hospital-readmission during HaH stay was needed in 28 cases (4.7%) and 63 patients (10.6%) were readmitted during the next 30 days after HaH discharge. 30-day mortality after HaH admission was 2.8%. Median Charlson comorbidity index was 4.54. Cardiovascular, pulmonary and metabolic comorbidities were found in 318 (53.4%), 153 (25.7%) and 188 (31.6%) patients, respectively. 262 patients (44%) had a neoplasm and 56 patients (9.4%) presented febrile neutropenia. At admission median C-reactive protein (CRP) level was 13.04 mg/dl and mean absolute leucocyte count was 10,700 cells/µL. Most commonly used antibiotics were: ceftriaxone (63.9%), ertapenem (22.85%), levofloxacin (4.4%) and piperacillin/tazobactam (3.4%). The two most common focus of infection were respiratory (44.2%) and skin/soft tissues (24.5%). Mean duration of antibiotic treatment was 5.16 (SD 2.9). Microbiological evidence of infection was found in 196 (32.9%) and 58 patients (9.7%) presented bacteremia. The most common identified causative agents of infection were: E. coli (71 cases; 36.2%, of which 18 were ESBL), P. aeruginosa (12.2%), S. pneumoniae (10.7%) and Klebsiella spp with 7.6% (20% ESBL). We observed a significant higher mortality in patients referred from Haemato-oncologic department followed by those referred from the Emergency Dpt compared to other departments. Besides, patients with a respiratory focus of infection presented a higher mortality compared to other foci (4.6% vs 1.5%; p = 0.026). According to a satisfaction survey 92.4% of patients would repeat the HaH admission instead of conventional hospitalization.

Discussion: Patients admitted to HaH for and infection requiring intravenous antibiotics showed a high median age and comorbidity,

as well a considerable proportion of multiresistant microorganisms. However, observed rates of mortality and treatment failure are low, so complexity and also a moderate severity can be assumed in HaH. Although only about a third of infections had microbiological confirmation, empirical antibiotic therapy was effective in most patients. The comfortability and easy access to professionals of Integrated Care Unit lead to a high degree of satisfaction among patients.

Conclusions: A wide range of infections requiring intravenous treatment could be referred to the HaH, with a very low rate of mortality and readmission. However, attention must be paid with Haemato-oncologic patients and those presenting a respiratory focus.

A-312
HIGH SUCCESS RATE OF INFECTED VASCULAR PROSTHETIC GRAFTS WITH CONSERVATIVE MANAGEMENT

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Objectives: Appropriate treatment of vascular prosthetic infection has not been clearly defined, nor are there guidelines for its diagnosis and treatment. Therefore, an individualised management is recommended. Many authors following "traditional" or "conventional" criteria recommend removal of the prosthesis, though a growing number of studies report healing of prosthetic infections with conservative methods. We describe our experience with a conservative approach.

Material and method: All patients with confirmed diagnosis of vascular prosthetic graft infection in our center were included in the study between January 2000 and December 2010. Vascular prosthetic infection was defined by the presence of a periprosthetic collection on the CT scan, sings of surgical-site infection, and positive culture of purulent material obtained by puncture-aspiration by Interventional Radiology, surgical drainage or exudates. Similar cases but with negative culture findings were considered as probable infection. The infections were considered as early when diagnosed within two months after the intervention. Inclusion criteria for a conservative management included a functional vascular prosthesis with no anastomotic leak, thrombosis, aortoenteric fistulas or intestinal erosions and a hemodynamically stable patient. Conservative management protocol was: 1) Drainage of periprosthetic abscesses over 3 cm; 2) Intravenous induction antibiotic for at least 4 weeks, according to the pathogen; 3) Oral consolidation antibiotic therapy until clinical, radiological and scintigraphic healing sings are evidenced, with normalization of the acute phase reactants. Once antibiotic has been completed, two years follow-up were needed before considering the patient healed.

Results: A total of 29 cases were diagnosed during the study period. Of these, 7 were excluded: 3 due to aortoenteric fistula, 2 due to intestinal erosion, 1 due to endocarditis and hemodynamic instability, and 1 due to transfer to another center. Of the remaining 22 patients, the location of vascular prosthesis was: 10 femoropopliteal, 4 iliofemoral, 5 aorto-bifemoral and 3 axillo-bifemoral. Eight samples for culture were obtained by surgical drainage, 3 by imaging-guided puncture, and the rest from wound exudates. The most frequently isolated pathogen was methicillin-resistant Staphylococcus epidermidis (45%). Negative culture was obtained in 5 patients. All cases but one were regarded as early infections. Seventeen patients were considered cured and failure of treatment was observed in 5 patients: 3 in the induction phase, 1 in the consolidation phase, and relapse was observed in another case after suspension of the antibiotic. In 4 of these failures surgical removal of vascular prosthesis and revascularization was performed, while in the fifth case a conservative management protocol was employed. The outcome proved favorable in all 5 cases.

Conclusions: In our experience, those patients with vascular prosthetic infection but functional vascular prosthesis can be successfully managed on a conservative therapy.

A-320
PREDICTORS FOR EXTENDED-SPECTRUM BETA-LACTAMASES K PNEUMONIAE BACTERAEMIA

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Objectives: Isolation of extended-spectrum beta-lactamases (ESBL) Klebsiella pneumoniae is a new and growing problem in Spain. ESBL E coli is associated with prior antibiotic treatment and living in nursing home, and affects elder and frail patients but epidemiology of ESBL Klebsiella pneumoniae (EKP) is uncertain. To evaluate predictors of bloodstream isolation of EKP we designed this study.

Material and method: We evaluated all patients attended in our hospital during 2011 with bacteraemic Klebsiella pneumoniae infection. Clinical and epidemiological data between patients with or without ESBL were compared. We compared trends in percentage of Klebsiella pneumoniae infection and ESBL production in the last 3 years. Results are expressed as average (SD) or percentage. Independent predictors of EKP bacteremia were evaluated by multivariate logistic regression.

Results: A total of 46 patients were included; mean age 75.5 (2.1) years and 39.1% females. EKP was isolated in 15 patients (32.6%). Trends in E coli bacteremia, ESBL E coli bacteremia and K pneumoniae bacteremia were stable from 2009 to 2011, but EKP increased its percentage almost twice in the year 2011. Patients with EKP bacteremia did not exhibited differences regarding age (70.1 [17.2] vs 78.1 [12.2] years), sex (female 22.2% in EKP vs 39.3%), lived in nursing home (42.9% vs 28.1%), comorbidites such as diabetes and renal chronic disease, nosocomial origin of infection (54.5% vs 25.7%) and presence of shock (22.1% vs 35.1%) or (sepsis 29 vs 40%), $p > 0.05$ for all comparisons. However, patients with EKP bacteremia had more frequently urinary versus other sites of primary infection 50% vs 16%, $p = 0.023$; had received antibiotic in the previous 3 days (57.9 vs 14.8%, $p = 0.004$) and had urinary indwelling device (57.9 vs 14.8%, $p = 0.004$) more frequently; suffered urinary manipulation (52.9 vs 20.7% $p = 0.048$) or UTI in the previous month (66.7 vs 20.6%, $p = 0.009$). In the logistic regression analysis, urinary indwelling device (HR 8.1) and previous antibiotic use (HR 3.2) showed a trend to association but did not reach statistically significance.

Conclusions: Proportion of EKP bacteraemia was very high and exhibited an unexpected increase in the last year in our hospital. Factors associated with this infection seems linked to urinary tract origin and patients are somewhat different to ESBL E coli bacteraemia. Further research is warranted.

Clinical management

G-35
MEDICATION RECONCILIATION AT DISCHARGE IN AN INTERNAL MEDICINE UNIT FOLLOW-UP THROUGH FOUR YEARS AND EFFECT OF INTERVENTION MEASURES

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Objectives: Medication reconciliation at discharge is the formal process of obtaining a complete and accurate list of each patient's current home medications including name, dosage, frequency, and route of administration, and comparing discharge medication orders to that list. Reconciliation is done to avoid medication errors. The aim of our study was to analyze the proportion of patients who have had an accurate reconciliation list at discharge within an Internal Medicine Unit and to describe which intervention measures were implemented to improve it.

Material and method: We reviewed discharge reports of Internal Medicine Unit patients during March of 2009, 2010, 2011 and 2012 at Hospital Universitario Fundación Alcorcón (Spain). These reports were collected using our hospital electronic clinical history. Each report was analysed by two different researchers in order to detect whether it was properly reconciled or not. Differences between researchers were argued with a third member in order to obtain an agreement. In February of 2010, 2011 and 2012, we perform an informative presentation to the Unit to report which mistakes were detected during the previous year and to give advice about how to improve the process. To strengthen the message, the most relevant points were also sent by e-mail to the physicians within the Unit. During 2012, a complete list of patient's home medication was also collected and recorded in the electronic history, to facilitate proper medicines reconciliation. Data were collected using ACCESS 2003® database, and they were further analyzed with the SPSS 15.0® software. All patients signed a previous informed consent in order to authorize us to use their data. This study was approved by the ethical committee of the hospital.

Results: We collected a number of 97 consecutive reports in 2009, 198 in 2010, 200 in 2011 and 99 in 2012. The least reconciled type of medicines were: in 2009, antibiotics (21%); in 2010, statins (5.5%). In 2011 and 2012 we did not identify the type of medicine worst reconciled. The most frequent mistake in each year was: 2009 (44.3%) and 2011 (16%), not to detail the end of a treatment; 2010 (9.6%), not to design a treatment that covers all diseases of the patient; and finally, in 2012 (15%), not to detail a treatment that should be continued. The proportion of proper reconciliation for each year was: 36.1% for 2009, 72.7% for 2010, 70% for 2011 and 83.8% for 2012. These data were analyzed with ANOVA, obtaining a significant difference for good reconciliation ($p < 0.001$) between 2009 and the rest of years. There was also a tendency to improve between 2012 and 2011 ($p = 0.057$) and between 2012 and 2010 ($p = 0.179$), although it did not reach statistical significance.

Discussion: In 2009, there was a proportion of good discharge reconciliation of only 36.1%, similar to what is described within literature in other centres. Implementing some cheap and simple interventions, we have improved up to 83.8% in 2012, with a statistically significant difference. Mistakes were changing along the different years; although the physicians work in the Unit remained the same.

Conclusions: Medication reconciliation at discharge is a sign of quality in patients care and reduces adverse events. It is feasible to improve and to keep under adequate control along time using inexpensive interventions like the ones described in our study.

Heart failure

IC-5
OBESITY PARADOX IN HEART FAILURE ELDERLY PATIENTS; CLINICAL MEANING OF OVERWEIGHT AND OBESITY

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Objectives: Obesity paradox holds the improved survival of obese elderly or diseased patients. Obesity paradox has been extensively studied in heart failure. Although, in the last ten years, many studies have shown a better survival related to obesity, the reasons of the paradox are poorly explained. It is not clear why obese heart failure patients have a better survival being overweight a well know vascular risk factor. Moreover, coronary disease is the first cause of heart failure and obesity is a long term risk factor to develop heart failure. Most studies about obesity paradox, even those including multivariate analysis, consider body mass index (BMI) as the only nutritional parameter, and prognosis is controlled by other vascular risk factors. To know if it is fat or other associated beneficial factors, our objective is to analyse the prognostic value of overweight and obesity in elderly heart failure patients, controlling other nutritional data such as mid arm anthropometrics, serum proteins and muscle strength by dynamometry.

Material and method: We included, from January 2005 until July 2008, 244 patients hospitalized with heart failure (diagnosed according to Framingham criteria) at the Internal Medicine unit of a country hospital of Cantabria (Tres Mares Hospital at Reinosa); 115 were men and 129 women with an age range of 55 to 100 years (median age and quartiles of 85 and 79-89 years). Fourteen (5.7%) patients died during hospitalization. All patients were followed up by telephone with a median survival of 984 days.

Results: Patients with a better nutritional status assessed by BMI, subjective score, mid arm anthropometrics, hand grip, serum albumin, prealbumin, lymphocyte count and cholesterol levels showed a better short and long term prognosis. Obese patients with a BMI over 30 kg/m^2 showed a better long term prognosis than those with a BMI 25-30 kg/m^2, than those with a BMI 20-25 kg/m^2 and than those with a BMI under 20 kg/m^2. However, we did not find a relationship between fat excess, triceps skinfold (TSF) over 95th percentile, and survival. Obese and overweighed patients had lesser age and better nutritional status than those with normal or decreased BMI, as shown by anthropometrics, subjective score, handgrip, lymphocyte count, blood haemoglobin and serum albumin, prealbumin and cholesterol. All the nutritional data are closely correlated between each other. NYHA class also correlated with data of status of nutrition: so, as heart failure advances, nutritional status becomes impaired. At multivariate analysis to predict long term survival, neither BMI nor TSF showed an independent predictive value whereas a high mid arm muscle area (MAMA) improved long term survival.

Discussion: The better survival of overweight and obesity suggest us two different hypotheses. The first is that the fat excess, in a primary and specific way, may carry a beneficial condition for survival. In the second, the fat excess, even being not an advantageous condition "per se", would be associated with other factors favouring survival, being a surrogate marker of other protective factors. Our study agrees with the last hypotheses. The obesity is not only a sign of fat excess, but, in heart failure patients, it implies a better status of nutrition with more muscle mass, better strength and immune function, all of which are associated to a

better prognosis. So, the younger age and a better status of nutrition related to a BMI over 30 kg/m^2 may explain the better survival.

Conclusions: Obesity paradox reflects the better status of nutrition (protein mass and function indicators) of high BMI in heart failure patients and the worst of low BMI ones. These differences in the nutritional status may be responsible of differences in survival.

IC-14
VENOUS THROMBOEMBOLISM IN HEART FAILURE HOSPITALIZED PATIENTS

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Objectives: Patients with heart failure (HF) are at increased risk for venous thromboembolism (VTE). We analyzed a large Spanish database to determine the incidence of VTE in these patients during hospitalization.

Material and method: A retrospective chart review of cohort of consecutive patients admitted with HF as the primary reason for discharge in Spain between January 1st 2006 and December 31st 2007 was performed. For each patient, demographic data, risk factors for VTE and the diagnosis of VTE during hospitalization was recorded.

Results: We analyzed the clinical data of 275,166 adults with HF admitted to the hospital at any public centre in Spain, in 2006 and 2007. We identify 1,360 new diagnosed VTE events among 244,274 HF patients hospitalized more than two days (incidence 0.6%). Women comprised 60.8% of the patients, and the mean age was 76.7 years (SD 11.2). The mean average length of stay was 13.8 days (SD 11.2), and 20.9% died during the hospitalization (OR 2.89 95%CI 2.50-3.27 after adjustment by age and gender). The cost for patients who developed VTE during hospitalization was 4531 € (SD 993), 926€ higher than median cost (3605€). In univariate analysis, gender (women), (0.6% of women suffer a VTE during admission vs 0.5% of men; OR 1.4 95%CI 1.3-1.6) cancer (7.9% vs 5.6%: OR 1.4 95%CI 1.2-1.7), cerebrovascular disease (5.9% vs 4.5% OR 1.3 95%CI 1.1-1.6), concomitant acute infection (23.6% vs 19% OR 1.31 95%CI 1.2-1.5), varicose veins (0.7%vs 0.2% OR 3.1 95%CI 1.6-5.7), malnutrition (1.3% vs 0.7%; OR 2.0 95%CI 1.2-3.2) atrial fibrillation (47.6% vs 41%; OR 1.2 95%CI 1.2-1.4), acute renal failure (8.3% vs 4.2%; OR 2.05 95%CI 1.68-2.48) were significantly associated with VTE during admission. There was a significant reduction in the odds of VTE in patients who had heart failure and diabetes (27.3% vs 32.9%; OR 0.76 95%CI 0.67-0.86). VTE was not significantly associated with obesity, hypertension, acute respiratory failure, chronic renal failure or rheumatic disease. Hospitalized-acquired VTE risk factors were female gender (odds ratio [OR] 1.41; 95%CI 1.64-1.58), neoplasic disease (OR 1.54 95%CI 1.26-1.88), diabetes (OR 0.76 95%CI 0.67-0.85), atrial fibrillation (OR 1.24 95%CI 1.11-1.38) cerebrovascular disease (OR 1.28 95%CI 1.02-1.61), acute infection (OR 1.26 95%CI 1.11-1.43), malnutrition (OR 1.64 95%CI 1.03-2.63) varicose veins (OR 2.75 95%CI 1.47-5.17), acute renal failure (OR 1.98 95%CI 1.63-2.40) and hypertension (OR 0.86 95%CI 0.76-0.97).

Discussion: We examined more than two hundred thousand of consecutive hospitalizations of adult HF patients in Spain, over a 2-year period, and we have seen than almost six patients out of 1000 suffer a VTE during hospitalization. This rate of complication is more than double that the rate demonstrated in the surgical population, based in study which used a similar methodology, where authors observed that 0.24% of hospitalized patients after a surgical procedure suffered a VTE during hospitalization.

Conclusions: VTE appears as a major threat to patients admitted for HF, and pharmacologic prophylaxis should be considered in all high risk situations.

IC-17
HEART RATE VARIABILITY IN PATIENTS WITH AND WITHOUT HEART FAILURE AND VENTRICULAR PREMATURE BEATS

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Objectives: To assess the change of the heart rate variability (HRV) in patients (pts) with and without heart failure (HeF) in relation to the presence and severity of ventricular premature beats (VPB) and various concomitant clinical conditions.

Material and method: We performed 24 hours Holter ECG monitoring for palpitations in148 pts classified in 2 groups: with (G1) and without (G2) HeF. We noted demographic data, history of arterial hypertension (HP), ischemic heart disease (IHD), old myocardial infarction (OMI), type 2 diabetes mellitus (DM), NYHA class and medication of HeF, VPB Lown class III and IV. We evaluated HRV using time domain methods (ms): standard deviation of normal-to-normal interval over 24 hours (SDNN-24h), standard deviation of the average NN interval index (SDANN); standard deviation of normal-to-normal interval index (SDNNi); frequency domain methods (Hz): very low frequency (VLF), low frequency (LF), high frequency (HF) and LF/HF ratio. Reduced HRV was defined for a SDNN-24h under 100 ms. We compared the results between the 2 groups using EpiInfo 3.5.3 statistical program.

Results: 61 pts where in G1, 75.4% NYHA II, 19.6% NYHA III and 3.2% NYHA IV; 49.2% men; 69.8 ± 10.2 years old. 87 pts were in G2. G1 pts were older than G2 (69.8 ± 10.2 years vs 57.9 ± 15.8 years, $p < 0.0001$), with an increased prevalence of IHD (52.5% vs 23%, $p = 0.0002$), OMI (16.4% vs 3.4%, $p = 0.006$) and DM (26.7% vs 11.5%, $p = 0.01$). 85% G1 pts took beta blockers. 30 (49%) G1 pts and 27 (31%) G2 pts had VPB. VPB Lown III were equal distributed in G1 and G2 (11.5% versus 12.6%, $p = 0.83$) but Lown IV were more frequent in G1 than in G2 (37.7% versus 18.4%, $p = 0.008$). 45.9% pts in G1 versus 26.4% in G2 had reduced HRV ($p = 0.01$). SDNN-24h was 103.7 ± 35.7 ms for G1 vs 124.5 ± 36.2 ms for G2, ($p = 0.0007$) and SDANN was 92.7 ± 35.3 ms for G1 vs 113.5 ± 34.5 ms for G2 ($p = 0.0005$). In G1 group, pts with VPB had lower HRV than pts without VPB (SDNN 24h 94.3 ms, vs 112.9, $p = 0.04$, SDANN index, ms, 82.4 vs 102.6, $p = 0.02$). The prevalence of decreased HRV didn't differ significantly between NYHA classes ($p = 0.72$) and was not associated with the history of HT, OMI, IHD, DM. The presence of DM was associated with the decreased HRV in G2 pts (odds ratio = 5.29 95%CI [1.33;20.93], $p = 0.01$). LF was 396.4 ± 520.3 Hz in G1 and 462.8 ± 334.3 Hz in G2 ($p = 0.008$). LF/HF ratio was 2.64 ± 1.69 in G1 and 3.53 ± 2.49 in G2 ($p = 0.01$).

Discussion: Arrhythmic sudden death can occur in HeF with preserved ejection fraction, proving the need for parameters of arrhythmic susceptibility. HRV, LF and HF components are correlated with arrhythmic risk, demonstrating the imbalance of the cardiac autonomic nervous system. We found a decrease of the HRV in patients with HeF in all NYHA classes, irrespective of the ischemic or non-ischemic etiology, comparing to the pts without HeF. Only in HeF pts the low HRV was associated with the presence of VPBs classes III and IV Lown. The association of DM decreased the HRV in pts without HeF, proving the role of the diabetic autonomic cardiac neuropathy. We did not observe a similar correlation between DM and decreased HRV in HeF pts. In established HeF there are multiple

nervous and hormonal disturbances which can impair the HRV and increase the arrhythmic risk; the role of DM in itself could be less significant. We found a low LF and LF/HF ratio in HeF pts treated with beta-blocker, which can partially explain their antiarhythmic effect.

Conclusions: Pts with HeF had decreased HRV in comparison with pts without HeF. In pts with HeF the decreased HRV was associated with the VPB, irrespective of NYHA class. Pts without HeF and DM had lower HRV comparing with those without DM. The decreased LF and LF/HF ratio in HeF pts might be explained by the high number of pts taking beta blockers.

IC-18
APPLICATION OF SENIORS HEART FAILURE SCORE IN THE RICA HEART FAILURE REGISTRY: AN ASSESSMENT OF VALIDITY AND CLINICAL USEFULNESS

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Objectives: The objective of this study was to validate the utility of a simple modified SENIORS risk model, in an independent cohort of elderly heart failure patients.

Material and method: The SENIORS risk model was applied to patients in the National Spanish Registry of Heart Failure (RICA) to estimate baseline risk at one year of a) composite outcome of all cause mortality or cardiovascular hospital admission and b) all cause mortality, and to link this to actual event rates in the whole group and subgroups stratified by level of baseline risk. Receiver operating character (ROC) curves were used to determine areas under the curve for prediction of proportion events.

Results: In the RICA registry 580 patients were identified (mean age 77 years, with mean ejection fraction 51%). Rates of death/CV hospitalization were 34% and all cause mortality 17.2% at one year. In the lowest and highest quintiles respectively the expected versus observed risk of death/CV hospitalization were 23.1%/22.4% and 45.8%/45.6% and for death 6.5%/6% and 31.8/36.0%. The risk model provided good separation of Kaplan Meier stratified by tertile of baseline risk, and ROC curves showed a C statistic of 0.61 and 0.68 for agreement between the model applied to the original SENIORS dataset and to the RICA dataset for death/CV hospitalization and all cause mortality respectively.

Discussion: In this cohort of non clinical trial, hospital-based patients with HF, we successfully validated the SENIORS risk at 1 year. If mortality or CV hospitalization to hospital discharge can be reduce with better patient selection. The combination of SENIORS risk, for prediction mortality or cardiovascular hospitalization using the RICA registry, may help to identify appropriate patients that require frequent monitoring. In addition, a method is necessary to identify high risk patients who might benefit from close supervision. Alternatively, patients who poor scores and symptoms refractory to conventional therapy might be select for palliative care.

Conclusions: Our findings show that a simple modified SENIORS risk model performed well when applied to an independent observational cohort of heart failure patients from "the real world" and therefore could be a useful routine clinical tool.

IC-27
PREDICTIVE VALUE OF PLASMA GALECTIN-3 LEVELS IN HEART FAILURE PATIENTS WITH PRESERVED EJECTION FRACTION

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Objectives: Galectin-3 (Gal3) is a novel biomarker involved in fibrosis and inflammation and plays a role in heart failure (HF). However, its usefulness in patients with HF with preserved left ventricular ejection fraction (LVEF) remains sparse and not well-known. We aim to establish the relationship of Gal3 and outcomes in patients with HF with preserved LVEF.

Material and method: We evaluated serum Gal3 levels on admission in 349 consecutive patients with LVEF > 45% hospitalized for HF in three different Spaniard hospitals. LVEF was estimated by the Simpson rule. Renal function was calculated by creatinine and estimation of glomerular filtration rate (GFR) by MDRD-4 equation. We categorize Gal3 into quartiles because normal ranges have not been well established. Primary endpoint was all-cause mortality and/or readmission due to HF during 1-year follow-up. Kaplan-Meier survival plots were performed from baseline to time of primary endpoint. We determined hazard ratio (HR) derived from the stepwise multivariable Cox proportional hazard model to identify predictors of primary endpoint.

Results: During 1-year follow-up period, 109 patients (31.2%) died, and 178 patients (51.0%) were readmitted. Primary endpoint was 53.6% (95%CI; 0.46-0.56). Median of Gal3 was 12.24 ng/ml (9.30-17.63). Gal3 by quartiles was associated at increased risk for adverse events. Kaplan-Meier survival curves only showed increased significantly primary endpoint between first and fourth quartile (Log rank < 0.0001). In univariante model Gal3 above median, anemia, diabetes mellitus, age, hyponatremia, renal failure defined by GFR < 60 ml/min/1.73 m^2 and NT-proBNP levels above median reached statistical significance. After correction for age, anemia, GFR and NT-proBNP levels, serum Gal3 levels above median were at increased adjusted hazard ratio for primary endpoint (HR 1.58; 95%CI 1.17-2.13; p = 0.002). The others variables did not reach significance in multivariable model.

Discussion: Any previous study gave partial information about the relation between HF with preserved LVEF and Gal3. We designed a study to answer specifically this hypothesis. The role of Gal3 in development and progression of HF is also present in patients with preserved LVEF.

Conclusions: Serum Gal3 levels measured on admission in patients with HF and preserved LVEF are strong and independent predictors for unfavourable outcomes.

IC-30
HEMOCONCENTRATION AS A PREDICTOR OF SURVIVAL IN THE YEAR OF DISCHARGE HEART FAILURE

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Objectives: To determine the prevalence of patients in which we got the hemoconcentration clinic in the three months after a hospital admission for heart failure (HF) and if it is a prognostic factor for re-admission for cardiovascular cause or death during the first year of follow-up.

Material and method: Patients included in the RICA Register who have completed one year of follow-up. We exclude patients treated with iron, erythropoietin or red blood cell transfusion and patients with liver cirrhosis, nephrotic syndrome, or an estimated glomerular filtration < 30 ml/min. We define hemoconcentration as the upper quartile of the distribution of change in the haemoglobin (Hb), expressed in%, the third month following discharge Hb compared with the initial admission. Statistical analysis using the SPSS program using the Student t test, Wilcoxon or the χ^2 according to the category of variables in the univariate analysis; The method of Kaplan-Meier and Cox proportional hazards model to estimate the independent association between hemoconcentration and death. It is considered with statistical significance for all analysis a $p < 0.05$.

Results: 542 patients, mean age 76.9 years (range = 50-96). Mean follow up to the first event of 266.3 days. The group with hemoconcentration showed lower BMI (28.2 ± 5.1 vs 29.4 ± 5.8; p = 0.043); lower value of Hb (11.2 ± 1.5 vs 13.4 ± 1.6; p < 0.001) and received the highest cumulative dose of loop diuretics (57.4 ± 35.2 vs 50.1 ± 29.1; p = 0.023). However, in the three months there were no differences in weight, glomerular filtration and Hb between both groups. We have witnessed 134 deaths (24.7%) and 129 readmissions by cardiovascular causes (23.8%) while the curve of survival of both groups is separated in the first quarter, not reaching statistical significance in the following year (p = 0.167). In the univariate analysis hemoconcentration showed no significance whatsoever to mortality the following year. In the multivariate analysis, were predictors of mortality age (RR 1.05; 95%CI 1.03-1.08), ischemic heart disease (RR 1.6; 95%CI 1.1 -2.32), BMI (RR 0.92; 95%CI 0.89-0.96) and functional class III and IV of the NYHA (RR 3; 95%CI 1.2-7.5 and RR 5.2;95%CI 1.6 -17.3 respectively).

Discussion: The hemoconcentration in patients with HF who have been discharged from a hospital admission has been associated with increased doses of diuretics and further deterioration of renal function; contrary to what we would expect, this reduces the risk of death in the following year. In our cohort of real clinical practice, we found that the persistence of the state of hemoconcentration in the three following months, has no effect on the glomerular filtrate and does not influence the prognosis of the patient.

Conclusions: the hemoconcentration 3 months after admission HF has no character prognosis for readmission or death in the following year, nor does it imply a worsening of the glomerular filtrate.

IC-32
BEDSIDE ULTRASOUND EVALUATION OF THE INFERIOR VENA CAVA AND RISK OF DEATH IN PATIENTS WITH HEART FAILURE

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Objectives: We sought to analyze the value of ultrasound assessment of the inferior vena cava (IVC) to identify patients with acute decompensated heart failure (HF) who have high risk of death in the short term.

Material and method: We performed a prospective observational study including patients admitted to a University Hospital and were diagnosed of HF according to the European Society of Cardiology criteria. We excluded patients who were admitted in the intensive care unit, were included in dialysis program or were in agony. Demographic data, functional status, standard medical treatment, comorbidity, etiology of HF, echocardiographic data and analytical parameters were registered. Within the first 24 hours of admission IVC measurement with ultrasound in inspiration and expiration and IVC collapsibility index was assessed. Patient follow-up was performed at 90 days. IVC measurements were performed by an internist with experience in abdominal ultrasonography with a portable ultrasound (Logic e, General Electric).

Results: 43 patients were included (mean age 74 ± 14 years; 60% women). The NYHA average was 2.3 ± 1. The etiology of HF was: significant valvular disease 34.9% (n = 15), hypertensive heart disease 23.3% (n = 10) and ischemic heart disease 16.3% (n = 7). 26 patients (60.5%) had a preserved LVEF and 17 (40%) chronic renal insufficiency. The mean Charlson index was 7.7 ± 3.2). The mean hemoglobin was 12 ± 1.7 mg/dl and mean NT proBNP at income was 6290 ± 5067 pg/ml. Total mortality due to HF at ninety days was 23.3% (n = 10). IVC was visualized in 34 patients (83.7%). Mortality in patients with expiratory IVC diameter < 2.5 cm was 9% (2 of 24), whereas in those with expiratory IVC > 2.5 cm and collapsability index < 50% mortality was 50% (6 of 12) (p = 0.003). The relative risk of death was calculated with the hazard ratio (HR) from Cox regression models. Expiratory IVC > 2.5 cm and collapsability index < 50% was an independent mortality predictor (HR: 8; 95%CI 1.6-12.8; p = 0.01).

Conclusions: Bedside evaluation of the IVC with a hand-carried ultrasound at the time of admission reliably identified patients at risk of death in the short term.

IC-33
CHRONIC SYSTOLIC HEART FAILURE TREATMENT IN SPAIN INFLUENCE OF PATIENT CLINICAL CHARACTERISTICS ON ALDOSTERONE BLOCKERS USE IN INTERNAL MEDICINE SETTINGS

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Objectives: Chronic heart failure (CHF) has become a cardiovascular epidemic with higher incidence and prevalence. Because of this reason, CHF patients are followed by different specialist and primary care. Previous studies suggest differences in patients characteristics and treatment used between cardiologist and internal medicine (IM) and this differences could be influence in the prognosis. The objective of this study is to compare the systolic CHF management performed

by cardiologist and internal medicine and the influence of clinical characteristics on treatment use by IM.

Material and method: VIDA IC study is a national, prospective registry conducted in 2011 by 115 specialists (cardiologists and internists) across Spain who included consecutive outpatients with CHF and left ventricular ejection fraction (LVEF) < 40%.

Results: A total of 967 patients were evaluated for this analysis. Patients' mean age was 70.6 years, 30% were women and 40% were > 75 years. 37% of these patients were followed by internists and 63% by cardiologists. Patients' mean age was 69 years in Cardiology and 74 years in IM (p < 0.0001); no differences were observed in gender. Patients followed in IM had more hypertension, diabetes, COPD, ictus, significant renal failure, anemia, thyroid dysfunction and atrial fibrillation. CHF severity was similar in both settings. Patients followed by cardiologists received more aldosterone blockers (72 vs 54%, p < 0.001). Within the 353 CHF patients followed by internists, 54% were on aldosterone blocker treatment. There were no differences between patients with and without aldosterone blockers with respect to age, gender, diabetes, hypertension, previous acute myocardial infarction, NYHA class or atrial fibrillation. Serum potassium and creatinine levels were similar in both groups (4.3 ± 0.5 vs 4.3 ± 0.5, p = 0.11 and 1.4 ± 0.9 vs 1.4 ± 0.7, p = 0.58 respectively). Patients on aldosterone blocker treatment had lower systolic blood pressure (132.6 ± 20.4 vs 127.9 ± 18.1, p = 0.024).

Discussion: Considerable differences exist between characteristics of systolic CHF patients followed by internists and cardiologist in Spain. Patients followed by internists were older, had more extracardiac comorbidities, and received less aldosterone blocker treatment. Age and gender did not have influence on aldosterone antagonists prescribed by internists. It is important to note that serum potassium and creatinine levels did not explain the lack of aldosterone blocker treatment in the majority of patients without aldosterone antagonists.

Conclusions: These real world data suggest that there is sub-optimal transfer of clinical trial evidence into clinical practice. Although the percentage of aldosterone blocker treatment in patients with systolic CHF prescribed by internists is relevant, there is still room for improvement the use of this treatment. Further research is needed to evaluate the factors that have an influence on aldosterone antagonist use in Internal Medicine settings.

IC-34
ECHOCARDIOGRAPHIC PREDICTORS OF ADVERSE OUTCOMES IN PATIENTS WITH PULMONARY HYPERTENSION DUE TO LEFT HEART DISEASES

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Objectives: To identify the adverse echocardiographic prognostic factors in patients with pulmonary hypertension due to left heart diseases and their impact on mortality, quality of life, need for hospitalization and complications during hospitalization. *Material and method:* We performed a prospective study that included 370 patients with left heart diseases and pulmonary hypertension. We analyzed a series of echocardiographic parameters (systolic pulmonary artery pressure, the pulmonary acceleration time, left ventricle ejection fraction, dimensions of the right cavities, right ventricle systolic function and presence of the pericardial effusion), and we analyzed their correlation with mortality, WHO functional class, complications and need for hospitalization.

Results: The average systolic pulmonary artery pressure determined by echocardiography (sPAP) was significantly associated with higher mortality (p < 0.001) and shorter survival rates (r 0.52, p < 0.001). Severe pulmonary hypertension, defined as sPAP more than 70 mmHg, was associated with increased number of hospitalisations (p < 0.001), longer duration of hospitalisation (p < 0.001), increased need for mechanical ventilation (p 0.008), higher rates of renal (p 0.01), hepatic (p 0.009) and pericardial (p 0.001) complications. We found no association between sPAP value and need for inotropic support or pleural complications. The pulmonary acceleration time was not statistically associated with mortality (p 0.14) or the survival time (p 0.059). Left ventricle ejection fraction was significantly lower in deceased patients (p 0.03), but we found no correlation between the value of left ventricular ejection fraction and survival time (r 0.0203, p 0.747). Dilatation of right cavities was a major prognostic factor, negatively correlated with mortality. Right ventricular end diastolic diameter and right atrium area (indexed to the body surface area) were closely correlated with the risk of death (p < 0.001). Right ventricular dysfunction was also associated with higher risk of death - average TAPSE in deceased patients was 12.23 ± 4.83 mm and 18.49 ± 5.8 mm in the remaining patients (p < 0.001). Pericardial fluid was associated with a relative risk of death of 3.5 (confidence interval 1.49 to 8.21), p 0.04.

Discussion: There is a lack of consensus on factors that predict mortality and prognosis in patients with pulmonary arterial hypertension. The sPAP, determined by echocardiography, has not classically been seen as a prognostic factor. Yet, recent studies found that severe pulmonary hypertension (defined on echocardiographic criteria) is an independent predictor of mortality, readmission for heart failure or fatal arrhythmia after cardiac surgery in patients with chronic organic mitral regurgitation. In our study, we found that severe pulmonary hypertension (defined as sPAP > 70 mmHg) is closely related to increased mortality, survival duration, number of hospitalizations for clinical worsening and heart failure phenomena and longer hospitalization duration. We also found a statistically higher risk of patients with sPAP > 70 mmHg for mechanical ventilation and renal, hepatic and pericardial complications. Right atrium enlargement, right ventricle dilation and dysfunction and the presence of pericardial fluid correlate in our study both with mortality and functional class.

Conclusions: We identified as main echocardiographic negative prognostic factors: the pulmonary artery systolic pressure value, right cavities dilation, TAPSE and the presence of pericardial effusion. Echocardiography brings very useful tools for assessing prognosis in patients with pulmonary hypertension due to left heart diseases.

IC-35
HEART RATE AS A PROGNOSTIC FACTOR IN PATIENTS WITH HEART FAILURE AND COMORBIDITY

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Objectives: To know the importance of heart rate in patients with multipathological problems with heart failure (HF) for re-admission for cardiovascular cause or death during the first year of follow-up.

Material and method: Patients included in the RICA Register who have completed one year of follow-up. We include the heart rate to third month following discharge. The heart rate (HR) was distributed

in tertiles (T1 ≤= 70 beats per minute (bpm), T2 70-80 bpm, T3 > 80LPM). Statistical analysis using the SPSS program using the Student t test, χ^2 according to category of variables in the univariate analysis. The methods of Kaplan-Meier and Cox proportional hazards model to estimate the independent association between heart rate and re-admission for cardiovascular cause or death. It is considered with statistical significance for all analysis a $p < 0.05$.

Results: 678 patients with a mean age of 77.1 years (range = 51-96). Mean follow up to the first event of 333 days. After the analysis of the data were obtained Kaplan Meier curves which showed how the lower heart rate at 3 months is a factor of better prognosis for hospital readmission for heart failure and shows a trend toward the statistical significance for re-admission for heart failure or mortality. In the multivariate analysis, were predictors of mortality or re-admission cardiovascular cause, HR-T2 (RR 1.450; 95%CI 1.077-1.953), HR-T3 (1.424; 95%CI 1.036-1.957), age (RR 1.023; 95%CI 1.007-1.038), ischemic heart disease (RR 1.476; 95%CI 1.107-1.969), Beta-Blocker (RR 0.677; 95%CI 0.903-0.507) and functional class III and IV of the NYHA (RR 2.350; 95%CI 1.317-4.194 and RR 4.553; 95%CI 2.079-9.972 respectively).

Discussion: Our analysis confirmed the predictive value of resting heart rate in patients with HF in patients world real, for both the composite outcome of cardiovascular admission or mortality. We should try to get a heart rate less than 70 bpm in patients with heart failure can be beneficial to avoid the re-admission for this cause.

Conclusions: The lowest heart rate is a favourable prognostic factor in patients with heart failure.

IC-38
PREDICTIVE VALUE OF HOMOCYSTEINE IN HEART FAILURE

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Objectives: Hyper-homocysteinemia is an independent novel risk factor for vascular disease. Several studies have also reported that homocysteine (Hcy) could have prognostic value in heart failure. We aim to establish the relationship of Hcy and outcomes in patients with descompensated heart failure.

Material and method: A total of 160 consecutive patients, who had been hospitalized for descompensated heart failure, were enrolled and followed up for one year. Serum Hcy was measured upon admission. The cohort was divided into two subgroups according to normal levels of Hcy in our hospital (15 micromol/L). All-cause death and rehospitalization due to the worsening of HF/death were the primary endpoints.

Results: During 1-year follow-up period, 32 patients (20%) died, and 74 patients (46.5%) were readmitted or died. Across Hcy strata, 44.4% of patients had normal levels of Hcy, and 55.6% had hyper-homocysteinemia. Patients with higher levels of Hcy had a significant increased mortality ($p = 0.03$), but Hcy did not demonstrate to be a predictor of readmission. In univariate model, categorized Hcy reached statistical significance (only for death), but after correction for NT.proBNP levels, GFR, anemia, functional class and other variables, did not reach significance in multivariate model.

Discussion: It is well-known that Hcy is a risk factor for the development of congestive HF and high levels in serum have been associated with adverse cardiac remodeling and reduced pump function. However, the role of Hcy as a predictor of adverse events is not completely established. Future studies should explore this role and whether modification of Hcy levels could improve the clinical outcome in HF patients.

Conclusions: High levels of Hcy are very prevalent in HF patients, irrespective of aetiology or ejection fraction. Further studies, with bigger sample size, could clarify if Hcy play a role as prognostic marker.

IC-44
USEFULNESS OF LUNG ULTRASOUND AND BIOELECTRICAL IMPEDANCE VECTOR ANALYSIS (BIVA) IN DIFFERENTIAL DIAGNOSIS OF DYSPNEA IN PATIENTS WITH COMORBIDITY

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Objectives: Acute dyspnea is a common cause of emergency department (ED) admission. In 2010, patients presenting for dyspnea at the ED of Padua University Hospital were 5% of the total accesses (3,975 cases) and 13% of hospitalizations. Despite new technologies, the diagnosis of dyspnea represents a relevant problem, particularly in elderly patients with comorbidity. Aim: to evaluate the usefulness of lung ultrasound and of bioelectrical impedance vector analysis (BIVA) in the differential diagnosis of dyspnea.

Material and method: We included 37 patients (12 female and 25 male) with a mean age of 78.7 ± 11.4 yr hospitalized in the Medicine Department of Padua University Hospital. The ED admission diagnosis was cardiac (according to the European Society of Cardiology criteria) in 19 patients, infective in 10 (pneumonia or decompensated COPD), mixed (cardiac and infective) in 1 and only descriptive in 7 (respiratory distress or dyspnea). Patients were excluded if they had pulmonary embolism or cancer. All patients underwent lung ultrasound and BIVA on day first, third and before discharge. Lung ultrasound examinations were performed by a single operator, bilaterally scanning the anterior and lateral chest wall, with the patient in supine position. Each scan was considered to be positive when ± 3 close B-lines were visualized (maximum distance between adjacent B-lines of 7 mm). BIVA measurements were obtained with standard tetrapolar bioelectrical impedance electrodes at a frequency of 50 kHz using a phase-sensitive analyzer (Akern 101 Anniversary). The 2 vector components R and Xc were recorded and divided by the subject's height. All BIVA measurements were performed by one operator.

Results: Lung ultrasound modified admission diagnosis in 24 patients (65%; $p < 0.01$), with an increase of mixed dyspnea (from 1 to 13), a decrease in cardiac (from 19 to 17) and infective (from 10 to 7) dyspnea; no patients had a descriptive diagnosis. The number of positive lung scans at admission was not different between patients with heart failure and patients with mixed dyspnea, but was significantly higher in these two groups compared with patients with infective dyspnea (5.0 ± 2.52 and 4.62 ± 2.72 vs 0.57 ± 1.13, $p < 0.01$). Patients with heart failure had a significant reduction in number of positive lung scans at discharge (5 ± 2.52 vs 2.24 ± 2.36, $p < 0.01$) and the reduction was already present three days after admission (5 ± 2.52 vs 2.42 ± 2.71, $p < 0.01$). Also patients with mixed dyspnea had a decrease in positive scans at discharge (4.62 ± 2.72 vs 2.46 ± 1.71, $p < 0.05$), but without any significant difference the third day (4.62 ± 2.72 vs 3.78 ± 2.28, NS). All patients with infective dyspnea had negative lung sonography (less than 3 B-lines for each scan). Regarding BIVA evaluation, R value was not different between subgroups (heart failure 295.13 ± 76 vs mixed dyspnea 290.48 vs 106.07 vs infective 355.3 ± 94.7). Xc value was not different between the three subgroups (heart failure 27.96 ± 17.15 vs mixed 21.15 ± 7.26 vs infective 24.14 ± 6.5). There were no significant differences at discharge.

Conclusions: Lung sonography is a useful tool in differential diagnosis of dyspnea in patients with comorbidity, as it can identify and quantify pulmonary stasis. BIVA is not useful in differential diagnosis of dyspnea and is not suitable to identify pulmonary congestion.

IC-45
EVALUATION OF URINE NEUTROPHIL GELATINASE ASSOCIATED LIPOCALIN TO PREDICT THE FUROSEMIDE DOSE REQUIREMENT AND DEVELOPMENT OF ACUTE KIDNEY INJURY IN ADULT PATIENTS PRESENTING TO THE EMERGENCY DEPARTMENT WITH ACUTE DECOMPENSATED HEART FAILURE

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Objectives: The primary aim of the study was to evaluate the performance of admission urinary neutrophil gelatinase associated lipocalin (NGAL) levels to predict the furosemide dose requirement in the first three days of acute decompensated heart failure patients. The second aim was to evaluate the predictive value of urine NGAL to foresee acute kidney injury (AKI).

Material and method: Patients who were admitted to the Hacettepe University Faculty of Medicine emergency room with acute decompensated heart failure (diagnosed by clinical criteria) between December 2010 and October 2011, and who consented were prospectively enrolled to the study. Patients with chronic renal replacement treatment, congenital heart disease, contrast nephropathy and urinary infection were excluded. Demographic characteristics, chronic diseases, medications, complaints and physical findings, NYHA functional class, daily test and imaging results were recorded. Blood samples for brain natriuretic peptide (BNP) and urine samples for NGAL were obtained on admission.

Results: One hundred patients who presented to the emergency room with decompensated heart failure were enrolled to study. Patients having chronic renal disease developed more AKI when compared to those who have normal basal renal function (38.7% vs 9.6%, respectively) (p = 0.04). Urine NGAL levels were higher in chronic renal disease group (p = 0.02) as well as in AKI group (p = 0.009). On admission more than half of the patients were on furosemide (55%). The per oral furosemide dose at home was less in AKI group (p = 0.01). First day mean furosemide doses were similar between groups (80 mg), however on the second and third days diuretic dose increment was less in AKI group when compared to those who haven't developed AKI. Urine NGAL could not predict the mean diuretic dose in the first, second and third days of heart failure treatment. On ROC analysis urine NGAL above 12 ng/ml cut off value had a sensitivity of 79%, specificity of 67% for predicting AKI. On logistic regression analyses urine NGAL above 12 ng/ml cut off value had an odds ratio of 9 for AKI development.

Discussion: Acute heart failure syndromes can be complicated with cardiorenal syndromes. Acute kidney injury (AKI) is a condition usually confronted in acute and critical patients. Its incidence has been increasing both in inpatients and outpatients. NGAL is one of the promising markers that can differentiate injury and dysfunction and guide in early recognition of AKI. Renal function can decline due to various reasons in patients with heart failure, so sensitive and early markers like NGAL might be used to develop algorithms that will guide in drug treatment. This study showed that those heart failure patients who had high levels of urine NGAL at admission showed a higher rate of AKI. The primary aim of this study was to test the hypothesis that urine NGAL could predict the furosemide dose and guide in the decision to administer diuretics in decompensated heart failure patients. However, we could not demonstrate any association between the NGAL level and the diuretic dose requirement. On the other hand, NGAL was a good marker of AKI which had an odds ratio of 9 for the development of AKI in patients with decompensated heart failure when NGAL was above 12 ng/ml.

Conclusions: Urine NGAL level on admission of a decompensated heart failure patient is a good marker of AKI with an odds ratio of 9 when values above 12 ng/ml are accepted high. However, NGAL level could not predict the furosemide dose requirement in the first three days.

IC-60
PROGNOSTIC VALUE OF ERYTHROPOIETIN AND RELATIONSHIP WITH HEMOGLOBIN AND INFLAMMATORY MARKERS IN PATIENTS WITH HEART FAILURE A NEW EVIDENCE FOR THE HYPOTHESIS OF ERYTHROPOIETIN RESISTANCE

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Objectives: To determine the prognostic value of erythropoietin(EPO) levels during a year. Correlate erythropoietin with serum hemoglobin levels and circulating inflammatory markers as interleukin 6.

Material and method: We recruited 225 patients admitted in hospital with heart failure diagnosis. They were followed for a period of one year. The group was divided by median in two groups, one with high EPO levels and another with low EPO levels. Differences in mortality by Kaplan-Meier curves were compared. They also were compared using contingency tables. Group was divided in three equal subgroups after (tertiles) (tertile low EPO, medium EPO, and high EPO respectively) and hemoglobin levels intergroup were compared (Anova Test comparing subgroups by Bonferroni substudy). Interleucin 6 levels in the three groups were compared by nonparametric Kruskal-Wallis test (IL6 is not distributed normally). Also we correlated EPO levels and hemoglobin per linear Pearson Correlation.

Results: Kaplan Meier curves shows mortality differences between groups (p = 0.023). Higher mortality in Higher Erythropoietin levels. Similar result was obtained in contingency table (p = 0.040). There were statistically significant differences between EPO and hemoglobin levels (p = 0.00001) and in the intertertil comparison. Our data confirms weak inverse linear relationship (p = 0.001) between EPO and hemoglobin levels. Regarding the relationship between IL6 and EPO tertiles, our data confirms the statistically significant difference in the Kruskal-Wallis test by group (p = 0.028). The trimmed mean 5% of IL6 in each tertile was 3.45, 5.47 and 6.95 for the first, second and third tertile, respectively. This measure of central tendency was used by several outliers in the distribution of IL6.

Discussion: The results we were obtained shows when levels of erythropoietin increases, also increases mortality in these patients. It appears when increasing values of erythropoietin decrease hemoglobin levels. EPO stimulus to the marrow seems don't work to correct the levels of the hemoglobin. That's why in several previous articles was postulated the existence of possible resistance to EPO in the bone marrow related with cytokine-mediated inflammation. Our data support this hypothesis because when process of elevation of EPO is produced, so do the levels of IL6.

Conclusions: 1. Erythropoietin is a known predictor of mortality in one year 2. When levels of erythropoietin increasing, hemoglobin levels falls and vice versa. 3. The increase of erythropoietin and the decrease in hemoglobin is associated with increased serum levels of interleukin 6. 4. Our data support the hypothesis of the likely resistance to erythropoietin in the bone marrow, mediated by inflammatory activity.

IC-61
ROLE OF BIOLOGICAL AND NON BIOLOGICAL FACTORS IN CONGESTIVE HEART FAILURE MORTALITY: PREDICE-SCORE, A CLINICAL PREDICTION RULE

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Objectives: Congestive heart failure is a chronic, frequent and disabling condition but with a modifiable course and a large potential for improving. The aim of this project was to develop a clinical prediction model of biological and non biological factors in patients with first diagnosis of heart failure that facilitates the risk-stratification and decision-making process at the point of care.

Material and method: Historical cohort analysis of 600 patients attended at three tertiary hospitals and diagnosed of a first episode of heart failure according Framingham criteria. There were followed one year. We analyzed sociodemographic, clinical and laboratory data with potential prognostic value.

Results: The modelling process concluded into a logistic regression multivariable analysis and a predictive rule: PREDICE SCORE. Age, dependency for daily basic activities, creatinine clearance, sodium levels at admission and systolic dysfunction diagnosis (heart failure with Left Ventricular Ejection Fraction (LVEF < 40%) were the selected variables. PREDICE Score, has range of 22 points to stratifications of 1-year mortality. The model showed a c-statistic of 0.763.

Conclusions: The follow-up of 600 patients hospitalized by a first episode of congestive heart failure, allowed us to obtain a predictive 1 year mortality model from the combination of demographic data, routine biochemistry and easy handling social and functional variables at the point of care. The variables included were non-invasive, undemanding to collect, and widely available. It allows for risk stratification and therapeutical targeting and may help in the clinical decisions process in a sustainable way.

IC-65
DIFFERENTIAL CHARACTERISTICS AMONG PATIENTS WITH IDIOPATHIC (IPAH) AND CONNECTIVE TISSUE DISEASE ASSOCIATED PULMONARY ARTERIAL HYPERTENSION (CDPAH) PULMONARY HYPERTENSION REGISTRY (REHAP) DATA

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Objectives: Pulmonary arterial hypertension related with connective tissue disease (CDPAH) are said to have a worse prognosis than idiopathic PAH (IPAH). The Spanish registry of pulmonary hypertension (REHAP) was started in 2007 and take in all the PAH forms, including CDPAH. Patients are included from 31 centers but 75% of the pts comes from the 4 larger referee centers of PAH in Spain. Objective: to compare survival, demographic, clinical, treatment and hemodynamic data among patients (pts) with IPAH and CDPAH.

Material and method: Baseline categorical variables are expressed as frequencies and proportions, whereas continuous variables are presented as mean ± SD. Survival rates were calculated using the Kaplan-Meier method and standard life table analyses.

Results: The total number of pts with PAH (diagnosed by means of heart catheterization was) was 634: 402 with IPAH and 232 with CDHAP. CD in the last group were: systemic sclerosis (67%), systemic lupus erythematosus (15%), rheumatoid arthritis (2.6%) and others (15%). Pts of the IPAH group were younger (48 ± 18 vs 57 ± 15 years; $p < 0.001$), with higher male/female ratio (29% vs 12%; $p < 0.001$); at baseline they had a better functional capacity in the 6 minutes walking test (6MWT; 381 ± 115 vs 329 ± 117 meters; $p < 0.001$) and a higher systolic pulmonary arterial pressure (PAPs) measured by echocardiography (82 ± 21 vs 76 ± 23 mmHg; $p < 0.001$) with similar functional class. Hemodynamic differences were detected: IPAH pts had higher median pulmonary arterial pressure (PAPm; 53 ± 15 vs 44 ± 13 mmHg) and pulmonary vascular resistance (PVR 13 ± 6.8 vs 10 ± 5.6 UW; $p < 0.001$) and a greater proportion of responders in the acute vasodilator test (29% vs 17%; $p = 0.004$). CDHAP pts had worse parameters of respiratory functional tests and treatment with endothelin antagonist (ERA) was higher (52% vs 38%; $p < 0.001$) with no other differences in treatment among the 2 groups. IPAP pts had greater survival than CDHAP (1, 2, 3, 4 y 5 years: 90%-84%-78%-74%-69% vs 84%-75%-64%-58%-48%; $p < 0.001$).

Discussion: Pts with CDPAH in REHAP registry, although younger, with better hemodynamic parameters, analogous FC at diagnosis and similar treatment than IPAH pts, have a worse functional capacity (PM6M) and survival.

Conclusions: In the REHAP registry pts with CDPAH have better hemodynamic parameters but a worse survival than IPAH pts. Pts with CDPAH have to be considered of bad prognosis and an early and intensive treatment is mandatory.

IC-71
CHRONIC SYSTOLIC HEART FAILURE TREATMENT IN SPAIN INFLUENCE OF PATIENT CLINICAL CHARACTERISTICS ON BETA BLOCKERS USE IN INTERNAL MEDICINE SETTINGS

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Objectives: Chronic heart failure (CHF) has become a cardiovascular epidemic with high incidence and prevalence. Previous studies suggest differences in patient's characteristics and treatment used between cardiologist and internists that could have an influence on the prognosis. The objective of this study is to compare the clinical characteristics between systolic CHF patients with and without beta blockers in Internal Medicine settings

Material and method: VIDA IC study is a national, prospective registry conducted in 2011 by 115 specialists (cardiologists and internists) across Spain who included consecutive outpatients with CHF and left ventricular ejection fraction (LVEF) < 40%.

Results: A total of 967 patients were evaluated for this analysis. Patients' mean age was 70.6 years, 30% were women and 40% were > 75 years. 37% of these patients were attended by internists (353) and 63% by cardiologist (614). Patients' mean age was 69 years in Cardiology and 74 years in IM ($p < 0.0001$); no differences were observed in gender. Patients followed by internists had significantly more hypertension, diabetes, COPD, ictus, renal failure, anemia, thyroid dysfunction and atrial fibrillation. CHF severity was similar in both groups. Patients followed by cardiologist received more beta blockers (83 vs 66% ($p < 0.001$). Within the 353 CHF patients followed by internists, 67% were on beta blocker treatment. There were no

differences between patients with and without beta blockers with respect to age, gender, diabetes, hypertension and COPD. Patients on beta blocker treatment had more severe NYHA class (% NYHA III/IV: 41% vs 57.7%, p = 0.0032), acute myocardial infarction (31.1% vs 43.9%, p = 0.019), previous coronary intervention (21.1% vs 41.2% p < 0.001) and atrial fibrillation (44.2% vs 55.3%, p = 0.05). Heart rate and systolic blood pressure were significantly higher in patients without beta blocker treatment (80.1 ± 12.9 vs 73.9 ± 15.2 bpm, p < 0.001 and 134.9 ± 18.8 vs 127.6 ± 19.2 mmHg, p = 0.001, respectively).

Discussion: Considerable differences exist between characteristics of systolic CHF patients followed by internists and cardiologist in Spain. Patients followed by internist were older, had more extracardiac comorbidities, and received less beta blocker treatment. Age, gender, and COPD history did not have influence on beta blocker treatment prescribed by internists. On the other hand, low heart rate or blood pressure did not explain the lack of beta blocker treatment in the majority of patients without beta blockers.

Conclusions: These real world data suggest that there is sub-optimal transfer of clinical trial evidence into clinical practice. Although the percentage of beta blocker treatment in patients with systolic CHF prescribed by internists is relevant, there is still room for improvement the use of this treatment. Further research is needed to evaluate the factors that have an influence on beta blocker use in Internal Medicine settings.

IC-72
INFLUENCE OF ATRIAL FIBRILLATION IN HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH SYSTOLIC CHRONIC HEART FAILURE: REAL WORLD DATA IN SPAIN

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Objectives: It is estimated to be as much as 50% of heart failure (HF) patients may have atrial fibrillation (AF) in its evolution. Furthermore, it is known that HF increases the risk of AF up to six times and AF complicates the clinical curse of HF. Evidence of AF in health-related quality of life (HRQoL) has been demonstrated. This study aimed to describe the HRQoL in ambulatory chronic HF patients and to explore the differences of self-perceived health status according to FA presence.

Material and method: VIDA-IC is a nation-wide, prospective registry conducted by 115 specialist across Spain that included consecutive patients with CHF and LVEF < 40% in 2011. HRQoL was assessed using the Kansas City Cardiomyopathy Questionnaire (KCCQ) and the generic EQ-5D questionnaire that includes the Visual Analogue Scale (VAS). In both questionnaires, higher scores mean better HRQoL.

Results: Clinical characteristics of the 995 patients evaluated were: age 71 ± 11; 70.3% men; mean heart rate 74.1 ± 15.5 lpm; heart rate > or = 70 in 57.9%; LVEF 34 ± 7%; NYHA III-IV class in 44.5%; mean VAS 61.4 ± 19.3; EQ-5D index 0.6 ± 0.3; KCCQ overall summary score 62.3 ± 232. Chronic HF patients had a high prevalence of AF (44.5% had AF: chronic 20.0%, permanent 13.6% and paroxistic 11.1%). Chronic HF patients with AF had worse mean scores of the EQ-5D (0.7 ± 0.2 vs 0.6 ± 0.3, p < 0.0001), VAS (64 ± 19 vs 57.9 ± 19.3, p < 0.0001) and KCCQ overall summary score (65.4 ± 23.1 vs 58.7 ± 22.6, p < 0.0001). For disease-specific evaluation of HRQoL using the KCCQ, chronic HF patients with AF had worse level for all dimensions evaluated except the symptoms stability (59.9 ± 23.1 vs 59.2 ± 23.5, p = 0.6357) and autoefficacy (70.4 ± 22.4 vs 67.9 ± 22.3, p = 0.0926); see the table for the rest of the results.

Discussion: AF affects almost all the dimensions of HRQoL, particularly those related with physical limitations and severity of symptoms.

Conclusions: AF is an important determinant of the HRQoL in patients with systolic chronic HF. It is necessary to evaluate the pathophysiologic mechanism behind the differences observed in HRQoL in patients with chronic HF and AF.

Table 1 (IC-72). Health-related quality of life in patients with systolic chronic heart failure in Spain

KCCQ summary	Without AF	With AF	p-value
Clinical	68.7 ± 26.6	62.3 ± 22.7	< 0.0001
Symptoms	72 ± 22.8	63.3 ± 22.7	0.002
Physical limitations	64.6 ± 27.8	56.5 ± 27.4	< 0.0001
Frequency of symptoms	72.6 ± 22.4	67.1 ± 22.3	0.002
Burden of symptoms	70.2 ± 25.7	63.6 ± 26.2	0.001
Quality of life	57.7 ± 24.1	50.5 ± 23.8	< 0.0001
Social limitation	65 ± 28.8	56.4 ± 29.3	< 0.0001

IC-77
ISCHEMIC CARDIOGENIC SHOCK: PROGNOSTIC FACTORS IN PATIENTS UNDERGOING PRIMARY PERCUTANEOUS CORONARY INTERVENTION

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Objectives: Cardiogenic Shock (CS) is the leading cause of death in patients hospitalized for Acute Coronary Syndrome (ACS). Our aim was to determine which factors were associated with a worse prognosis in a cohort of patients with ischemic CS from a Coronary Care Unit.

Material and method: Prospective study of 99 consecutive patients (P) undergoing primary percutaneous coronary intervention (PCI) due to an ACS complicated with cardiogenic shock. Patients with CS due to mechanic complications or arrhythmias were excluded. Their characteristics were registered and a univariate analysis and multivariate logistic regression analysis were performed to identify risk factors associated with poor prognosis (death in the first 72 hours, in-hospital mortality and long-term mortality).

Results: 99 patients with a mean age of 71 ± 12 years (70% male) were prospectively registered. 50% presented CS at the time of first medical contact. The anterior wall was affected in 40%, CS due to right ventricle affectation was present in 27% and most had multivessel disease with affectation of Left Anterior Descending Artery in 71%. In the management, thrombolysis was performed in 15% and all patients underwent primary PCI (18% multivessel intervention). 19% of PCI were performed at night on call. Intra-aortic balloon counter-pulsation (IABC) was used in 36 patients (9 before PCI and 27 after PCI). Left Ventricular Failure (LVEF < 35%) was found in 42%. Mortality was defined as: Early Mortality (First 72 hours), In-Hospital mortality and Long-term mortality (22%, 40% and 55% in 355 days average follow-up, respectively). In univariate analysis, early mortality was associated with PCI performed at night on call (p: 0.02); Age > 75 years (p: 0.005) and LVEF < 35% (p: 0.001). In-hospital mortality was associated with PCI at night on call (p: 0.02) and LVEF < 35% (p < 0.001). The use of IABC showed a tendency for higher in-hospital mortality (p: 0.06). Long-term mortality was significantly associated with age > 75 years (p: 0.002), LVEF < 35% (0.001) and use of IABC (p: 0.009). In multivariate analysis Early Mortality was associated with PCI at night on call (OR 6.2; 95%CI, 1.5-25) and age > 75 years (OR 5.2; 95%CI, 1.5-17); In-hospital mortality also was associated with the same factors and furthermore with LVEF < 35% (OR 0.004; 95%CI, 1.6-13.6%). Long-

term mortality also was associated with age > 75%, LVEF < 35% and furthermore with use of IABC (OR 2.9; 95%CI, 2.1-7.9%).

Conclusions: CS in patients with ACS is a complication with high mortality. Age is the most important prognosis factor of mortality both early and late in our series. In early mortality it is also important when PCI is performed (on call) and during the hospitalization and in long-term follow-up, left ventricular dysfunction is the most important prognosis factor. In our registry, use of IABC doesn´t improve the prognosis.

IC-79
SERUM OSTEOPROTEGERIN AND MORTALITY IN HEART FAILURE

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Objectives: As a follow-up to other research works from our group, the aim of this study is to evaluate serum osteoprotegerin (OPG) and it significance in terms of survival in patients admitted with heart failure.

Material and method: Two hundred sixty patients with descompensated heart failure were enrolled and followed up for one year. Primary end point was all-cause mortality. Admission serum osteoprotegerin levels were determined by ELISA. The study cohort was divided into quartiles and also into two subgroups according to median and an optimal cut-off value determined by ROC analysis. The relationship between groups of osteoprotegerin and mortality was explored using Chi-square test. Statistical analysis was performed using SPSS 18.0.

Results: The mean of age of participants was 75.08 years, and most of the patients were women that had a preserved EF. 32% were in functional class NYHA III-VI prior to admission. After a follow-up of one year, mortality was 28.5%. The cut-off level was established by OPG median (8.05 pmol/l) and according to ROC curve (8.53 pmol/l). The mortality rate was significantly greater in patients with high OPG levels (OR 3.91 95%CI 2.21-7.01). Similarly, the highest OPG quartile (OPG > 11.20 pmol/l) was independently associated with 5-fold increased risk of mortality (OR 5.35 95%CI 2.91-9.81, p < 0.000).

Discussion: Currently, only natriuretic peptides are supported by Clinical Practice Guidelines as biomarkers for routine determination. Osteoprotegerin is a novel inflammatory biomarket in patients with cardiovascular disease such as coronary artery disease, acute coronary syndromes and heart failure post-infarction. Our results are similar to clinical trials, since in these cardiac conditions, OPG is an independent predictor of long-term death. It use could improve risk stratification and follow-up in patients with heart failure.

Conclusions: Serum osteoprotegerin levels on admission predict one-year mortality in patients hospitalized for decompensated heart failure. In addition, osteoprotegerin plays a role in risk stratification, demonstrating a worse prognostic in patients with levels above 11.20 pmol/l.

Inflammation and autoimmune diseases

IF-3
DIAGNOSIS OF LATENT TUBERCULOSIS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: T SPOT.TB OR TUBERCULIN SKIN TEST?

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Objectives: To analyze in our cohort of patients with systemic lupus erythematosus (SLE) the sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of the T.SPOT.TB in relation with tuberculin skin test (TST) and the concordance between both test for the diagnosis of latent TB. We will develop a diagnosis protocol of the infection in our population.

Material and method: This is a prospective study cohort (August of 2009 to February 2012), where SLE patients were included consecutively, with 4 or more criteria of the ACR, from the Unit of Systemic autoimmune diseases of University Hospital Virgen de las Nieves in Granada. In the first visit we collected epidemiological and clinical dates. We took blood test, urinary test, DNAn antibody, C3 and C4 levels, lymphocyte subpopulations, TST and booster, T. SPOT.TB, chest radiography, SLEDAI (index of activity) and SLICC (index of organ damage). Definition of variables: latent TB infection when positive TST (5 mm as taking treatment immunosuppressive or 10 mm in the rest of patients), T-SPOT-TB positive (according to laboratory technique), immunosuppression: patients in treatment with any immunosuppressive or receiving more than 7.5 mg of prednisone daily.

Results: 92 patients were included, 92.4% were women with an average age of 42.71 and history of risk of acquiring tuberculosis of 9.8% with a percentage of vaccination of the 2.2% (the 18.5% not remembered if they had been vaccinated). 46.7% of the patients were taking immunosuppressive with an average of 1.46 (minimum 1 and maximum of 3) and 19.6% of them with more than 7.5 mg of prednisone/QD. Autoimmune disease that appeared most frequently in our patients was antiphospholipid syndrome (14.3%). In the bivariate analysis: the patients in treatment with immunosuppressive (p = 0.020) and steroids at any dose (p = 0.028) had greater number of negative TST. None of these two variables influenced in the result of the T.SPOT.TB. There is association between the result of T.SPOT. TB Indeterminate and more time for diagnosis of disease (p = 0.012) and index of organ damage SLICC (p = 0.038). Patients in treatment with hydroxychloroquine presented greater agreement in the results of both tests (p = 0.007). In the multivariate study, the high figures of lymphocyte CD8 are associated with a higher discordance between both tests (p = 0.044); on the other hand, the treatment with hydroxychloroquine was related with greater agreement (p = 0.007). The concordance in general (table 3), measured with the Kappa index, between the two tests is low (kappa = 0.324), increasing with the group of patients without therapy IS or steroids (kappa = 0.436) and treatment with hydroxychloroquine (kappa 0.473). Diagnostic accuracy or efficiency of the study was the 92.39%. Finally, based on the results obtained, the diagnosis protocol of latent tuberculosis that we propose for our patients would be making a TST, if TST is positive (and there is no history of vaccination) we would treat them and in the case if it is negative and the patient is in immunosuppressive therapy or steroids, we will do the T.SPOT.TB and decide on the basis of this last test

Discussion: Patients with SLE are considered immnunosuppressed due to treatment and his own disease. This study suggests that the

immunosuppressive medication and corticosteroid treatment are a determinant of anergy.

Conclusions: In patients without immunosuppressive (IS) or steroids therapy, the tuberculin skin test remains a valid technique for the diagnosis of latent in our population group. In the case that the patient is taking IS or steroids at any dose, the T.SPOT.TB would be the alternative for the diagnosis in these cases.

IF-5
CARDIAC INVOLVEMENT IN SYSTEMIC SCLEROSIS: DIFFERENCES IN THE PRESENTATION AND SURVIVAL OF PATIENTS WITH LIMITED, DIFFUSE AND SINE SCLERODERMA SUBSETS

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Objectives: To describe the clinical characteristics and survival of a cohort of patients with Systemic Sclerosis (SSc) and cardiac involvement (CI) and compare them between the main SSc subsets (limited lcSSc, diffuse dcSSc and sine ssSSc).

Material and method: Patients with CI and SSc were selected from a reference hospital's database that consists of an overall of 413 patients diagnosed of SSc from April 1980 to July 2011, according to the LeRoy and Medsger's modified classification. We compared the following items: demography, organ involvement, immunological parameters, treatment and survival at 25 years between the 3 SSc subsets. 187patients with CI were included. CI was defined by: clinical manifestations, alterations in echocardiography, stress myocardial perfusion SPECT (Single Photon Emission Tomography), cold-induced myocardial perfusion SPECT, coronary arteries catheterization, chest X-ray and electrocardiogram.

Results: Statistically significant differences in epidemiologic data between the dcSSc and ssSSC were observed in: time since the age at onset until cardiac involvement was diagnosed (13.68 ± 7.81 yrs.; 8.91 ± 5.52 yrs.; p = 0.026), age at diagnosis of SSc (48.46 ± 13.15 yrs.; 57.83 ± 13.21 yrs.; p = 0.015) and age at the moment of death (57.9 ± 12.05 yrs.; 78.5 ± 3.53 yrs.; p = 0.040); statistically significant differences between lcSSc and dcSSc were: mean age at diagnosis of SScc (56.52 ± 12.86 yrs.; 48.46 ± 13.15 yrs.; p = 0.020) and mean age at death (68.48 ± 10.77 yrs.; 57.9 ± 12.05 yrs.; p = 0.020). Global series prevalences of CI variables were: pericardial involvement 2%, ischemic cardiopathy 16%, conduction alterations 16%, cardiomegaly 14%, coronary arteries altered 2%, left ventricle hypertrophy 15%, diastolic dysfunction 15% and left ventricle ejection fraction < 50% 1.4%. Left ventricle hypertrophy was associated with SAH in lcSSc (p = 0.022) but not with the two other SSc subsets. Diastolic dysfunction wasn't associated with AH. No statistically significant differences were found in comparing any CI variable. Average survivals at 10, 15, 20 and 25 years were 94%, 87.1%, 79% and 76.5% in lcSSc; 75.6%, 73%, 53.3% and 49.8% in dcSSc; 95.2% at 10 years and 89.9% for the other 3 periods in ssSSc. Log-Rank test showed significant differences in survival between all 3 SSc subsets.

Discussion: Epidemiological and baseline results matched with the literature. Prevalences of the cardiac involvement variables resulted similar to other published studies, and there was no difference between SSc subsets. No other study had already studied differences among the 3 subsets. Survival was higher in ssSSc group than in the others, and arterial systemic hypertension was not significantly related with left ventricle hipertrophy or diastolic dysfunction in ssSSc and dcSSc, so we consider this alterations to be part of primary SSc CI. lcSSc and arterial systemic hypertension relation was significative probably due to a very long follow up that included the eldest patients.

Conclusions: CI is a common complication of SSc. Main alterations are conduction alterations, ischemic cardiopathy, left ventricle hypertrophy and diastolic dysfunction. There are no statistically significant differences between SSc subsets for cardiologic variables. ssSSc has greater survival rates than lcSSc and dcSSc. Heart disease in this subset might be milder, although larger studies shall be conducted.

IF-10
PULMONARY HYPERTENSION IN SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS OF A STRUCTURED SCREENING PROGRAM

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Objectives: To investigate the prevalence and predictors of pulmonary hypertension (PH) in patients with systemic lupus erythematosus (SLE) and to validate a diagnostic strategy.

Material and method: 245 patients with SLE entered a screening program. Possible PH was defined as two consecutive systolic pulmonary arterial pressure (PAP) values > 40 mmHg by echocardiography. The subsequent diagnostic procedure, including right heart catheterization if needed, confirmed or excluded the diagnosis of PH secondary to cardiopulmonary disease or SLE-related pulmonary arterial hypertension (PAH). Independent predictors of PH were identified first by univariant analyses and then by multivariant multiple linear or logistic regression models, including the following independent variables: age, disease duration, sex, lupus nephritis, pleuropulmonary lupus disease, thrombosis, antiphospholipid syndrome, Raynaud´s, arterial hypertension, smoking, antiDNA, antiRo, antiLa, antiRNP, antiphospholipid antibodies, past immunosuppressive treatments, SLICC damage index and SLEDAI. The sensitivity (S), specificity (SP), positive (PPV) and negative predictive values (NPV) were calculated for different screening cutoff values.

Results: 88% patients were women and 99.5% were Caucasians. The mean (SD) age at the time of enrolment was 45 (16) years. 12 cases of PH were detected with a resulting prevalence of 5%. All cases were secondary (cardiomyopathy or valvulopathy = 9, severe pulmonary obstructive disease = 2, shrinking lung syndrome = 1). No cases of PAH were identified. Two consecutive PAP measurements > 40 mmHg performed best as the cutoff point for screening (table). The age at the time of enrolment was the only variable independently associated with PAP values (p = 0.0001), with the SLICC Damage Index score showing a borderline association (p = 0.08). Only the age at the time of enrolment showed an independent association with PH (OR 1.10, 95%CI 1.06-1.17). Specifically, no relationship between SLEDAI scores and PAP or PH was found.

Discussion: Previous studies have found a variable prevalence of PH in lupus. One of the possible reasons is the heterogeneity in the diagnostic process and in the PAP cut-off values. Our study represents the first structured screening program with a PAP definition according to current guidelines. Our results showed a low prevalence of PH with no cases of PAH identified. No specific associations with SLE-related variables were seen. Therefore, we do not recommend screening echocardiograms in lupus patients without a clinical suspicion of PH.

Conclusions: We found a low prevalence of PH and do not recommend screening echocardiograms in asymptomatic lupus

patients. Two consecutive PAP values > 40 mmHg by echocardiogram is the best screening procedure.

Table 1 (IF-10). Sensitivity, specificity, positive and negative predictive values for the different screening definitions of pulmonary hypertension

	Sensitivity	Specificity	Positive predictive value	Negative predictive value
PAP > 30	100	52	10	100
PAP > 40	100	91	38	100
PAP > 40 X2	100	97	70	100

IF-11
CLINICAL SIGNIFICANCE OF AUTOANTIBODIES AGAINST 3-HYDROXY-3-METHYLGLUTARYL-COENZYME A REDUCTASE IN MYOSITIS PATIENTS AND STATIN USERS

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Objectives: Statin use has been linked to a specific cause of immune mediated necrotizing myopathy (IMNM), being auto-antibodies against 3-Hydroxy-3-Methylglutaril-Coenzyme A Reductase (anti-HMGCR) a good marker of this condition. Our objective was to determine the presence of anti-HMGCR in myositis patients and statin users in our population and analyse its clinical significance.

Material and method: A historical cohort of patients diagnosed with myositis attending at Vall d'Hebron General Hospital between 1983 and 2012 were analysed for the positivity of anti-HMGCR antibodies. Thirty six (19 female) community patients treated with statins were also studied. Anti-HMGCR autoantibodies were performed by means a enzyme-linked immunosorbent assay. Positivity was considered when values were > 3SD of a control group (healthy blood donors). HLA-class II allele typing was performed by polymerase chain reaction (PCR).

Results: One hundred and eighteen (90 female) patients diagnosed with myositis were included in the study: 60 dermatomyositis, 38 polymyositis [PM], 3 inclusion body myositis and 7 immune-mediated necrotizing myopathy [IMNM] (4 exposed to statins, 2 related to cancer, and one case with anti-SRP). High values of anti-HMGCR were detected in 4 patients, 3 out of 4 with IMNM (75%) exposed to statins, and in 1 patient with PM. HLA-DRB1*11 was detected in 3 out of 4 patients with anti-HMGCR and in 16 out of 135 patients with myositis (75% vs 12%, p = 0.009; OR 21.8 [2.9-165.3]). None of the 36 community patients which were receiving statins were positive for anti-HMGCR autoantibodies.

Discussion: Mammen and Christopher-Stine, described recently an autoimmune myopathy related to statins exposure. Typically, patients presented with muscle weakness after statin exposure, high levels of creatin-phosphokinase values, and high grade of necrosis at muscle biopsy with expression of MHC I in muscle fibers. These "immune-mediated necrotizing myopathy" related to statin exposure appear to improve after immunosuppressive treatment. We also found in our cohort of patients with myositis that anti-HMGCR was a good marker of IMNM due to statin exposure. Moreover, as Mammen and Christopher-Stine have previously reported, our results agree with the idea that the incidence is low and most patients treated with statins even with myalgias or mild levels of creatinphosphokinase were negative; thus, anti-HMGCR seem to target a specific group of statin related myopathy which can benefit of immunosuppressive therapy.

Conclusions: Our data support previous reports which established that some patients probably genetically predisposed (HLA-DRB*11) exposed to statin may develop a specific autoimmune myopathy. Anti-HMGCR autoantibodies seem to be a good marker of this condition.

IF-13
OCCUPATIONAL EXPOSURES AND CLINICAL CHARACTERISTICS IN PATIENTS WITH THE ANTISYNTHETASE SYNDROME

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Objectives: Patients with antisynthetase antibodies (aSAb) develop a clinical condition known as antisynthetase syndrome (aSS), which is characterized by interstitial lung disease (ILD), myositis, arthritis, fever, Raynaud's phenomenon and mechanic's hands. Our objective was to evaluate airborne occupational exposure to dust, gases and fumes in a cohort of patients diagnosed with this syndrome and explore associations with clinical characteristics and immunological parameters.

Material and method: Information on lifetime occupational history was obtained using a structured interviewer-led questionnaire from 32 (23 female) out of 60 patients positive to aSAb identified from a cohort of 179 patients with myositis. Cumulative exposure to biological dust, mineral dust and gases/fumes until the onset of disease was determined using a general job-exposure matrix. Myositis-specific and myositis-associated autoantibodies were identified by line immunoassay (Euroimmun, Lübeck, Germany). HLA-class II allele typing was performed by polymerase chain reaction. Serial pulmonary function tests were performed to assess the clinical evolution, and improvement was defined as a > 10% increase in forced vital capacity (FVC) according to the American Thoracic Society. Comparisons between exposed and unexposed patients were performed using the Fisher's exact test and Mann-Whitney test.

Results: The median age of the 32 patients was 42.7 years (IQR: 32.2-52.5). Twenty-six patients tested positive to anti-Jo-1, three to anti-PL-12, and three to anti-PL-7. These patients were classified as having probable or definite PM (9 cases) or DM (15 cases), amiopathic DM (1 case), and the remaining patients (7 cases) had pure ILD without myositis. Twenty-two patients (69%) were carriers of HLA-DRB1*03 haplotype. Sixteen patients (50%) had ever been highly exposed to dust, gases or fumes with a median duration of 8 yrs (IQR: 4-18). ILD tended to be more common in patients with a history of high occupational exposure (94% vs 75%), although it did not reach statistical significance (p = 0.17). No statistically significant associations were found between occupational exposures and the presence of arthritis, mechanic´s hands, fever, Raynaud phenomenon, type of myositis, type of aSAb or positivity to HLA-

DRB1*03. High exposure to dust, gases or fumes was associated with a better prognosis with an improvement observed in 58% of the exposed and 18% of the non- or low-exposed (p = 0.05).

Discussion: Occupational exposure to dusts has been related to the presence of ILD. Fifty per cent of patients diagnosed with aSS were highly exposed to biological dust, mineral dust or gases/fumes, which is higher than 13%, the prevalence reported in a general population samples in our area. Conventional levels of statistical significance were not reached for most of variables analysed, mainly due to the small sample size of the patients studied, because of the rarity of the syndrome. Nevertheless, the relatively better prognosis of patients exposed, argue towards a pathogenic role in some patients; removal of the offending agent could explain this improvement.

Conclusions: A high percentage of patients with aSS had been exposed to dusts, gases or fumes. Removal of the offending agent could explain the improvement observed over time in these patients.

IF-16
PREDNISONE THERAPY IS AN INDEPENDENT CAUSE OF DAMAGE IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To analyse the association of prednisone therapy with damage at 5 years in an observational cohort of patients with systemic lupus erythematosus (SLE).

Material and method: Demographic and clinical variables were extracted from our database. Prednisone doses were calculated from the medical records. Two prednisone-related variables were constructed for the analysis: the mean daily dose received by the 5th year after the diagnosis and a categorical variable based on the mean daily dose, with the following categories: no prednisone, up to 7.5 mg/d (low dose), up to 30 mg/d (medium dose) and over 30 mg/d (high dose). Damage was calculated at year 5 using the SLICC damage index (SDI). Activity was measured using SLEDAI and recorded as the maximum yearly value.

Results: 249/283 (88%) of patients were women. The mean age (SD) at diagnosis was 36.5 (16) years. 59 (21%) patients had accrued damage within 6 months after the diagnosis of SLE. At year 1, 3 and 5, the frequency of patients with irreversible organ damage was 67/283 (24%), 83/272 (30%) and 91/244 (37%), respectively. The mean (SD) SDI score increased over time: 0.26 (0.59) at 6 months, 0.34 (0.72) at 1 year, 0.52 (0.97) at 3 years and 0.67 (1.05) at 5 years. The most frequent initial damage was at the cardiovascular (13 patients), neuropsychiatric (8 patients), renal (8 patients) and malignancy (7 patients) domains. The mean daily dose of prednisone was significantly higher in patients with any damage at year 5 (10.3 vs 5.8 mg/d, respectively, student t-test, p < 0.001). Likewise, there was a significant association between the mean daily dose of prednisone and the SDI score at year 5 (linear regression, p < 0.001). Analysing new damage accrued after diagnosis, the mean daily dose of prednisone and the SDI variation between year 0 and year 5 were also statistically associated (linear regression, p < 0.001). With regard to the mean daily dose prednisone categories, damage at year 5 was seen in 9/45 (20%) of patients taking no prednisone, 31/104 (30%) of patients taking low doses, 48/90 (53%) of patients taking medium doses and 3/5 (60%) of those receiving high doses (chi-square, p < 0.001). Significant differences in SDI scores and SDI variations between baseline and year 5 were seen in patients taking medium doses vs those taking low doses (ANOVA with Bonferroni, p = 0.018 and 0.021, respectively) and vs those taking no prednisone (ANOVA with Bonferroni, p = 0.003 and 0.005, respectively). However, no differences were seen between patients receiving low doses and those not taking prednisone (ANOVA with Bonferroni, p = 0.77 and 0.89, respectively). The effect of the mean prednisone dose on the absolute SDI score at year 5 persisted after adjusting for gender, age at diagnosis, calendar year of diagnosis, SDI at baseline, mean maximum SLEDAI, class III or IV lupus nephritis and time on antimalarials by year 5 (multiple linear regression, p = 0.003). Likewise, after adjusting for the same variables except for the baseline SDI score, the effect of mean prednisone dose on the SDI score variation between year 0 and 5 also persisted (multiple linear regression, p = 0.002). The results did not change when the categorical prednisone variable was used instead (multiple linear regression, p = 0.009 and p = 0.008).

Discussion: Irreversible organ damage is a major predictor of morbimortality in SLE. The effect of glucocorticoids on increasing organ damage has been suggested in previous studies. This study confirms that prednisone is an independent predictor of damage within 5 years of disease course, including new damage accrued after the diagnosis of SLE. Our results also point to the safety of low prednisone doses (defined as those lower than 7.5 mg/d).

Conclusions: Prednisone causes damage in patients with SLE. Long term doses above 7.5 mg/d should be avoided.

IF-19
SYSTEMIC AUTOIMMUNE DISEASES UNITS (UEAS) IN SPANISH INTERNAL MEDICINE DEPARTMENTS: ANALYSIS OF HEALTH CARE ACTIVITY, PATIENT CARE DEVICES AND FUNCTIONAL STRUCTURE OF 56 UNITS

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Objectives: To evaluate the structure, health care activity and patient care devices in systemic autoimmune diseases units (UEAS) integrated in Spanish Internal Medicine Departments.

Material and method: Systematic evaluation using a questionnaire containing the main data on patient care, teaching and research in systemic autoimmune diseases (SAD). The questionnaire was sent to all members of the Spanish Group of Autoimmune Diseases (GEAS-SEMI) through the mailing group list in February 2012. UEAS was defined as a functional healthcare structure in which specific circuits have been established to provide targeted care for patients with SAD.

Results: By March 31, 2012, information had been collected from 56 UEAS integrated in Spanish Internal Medicine Departments. Over 50% of UEAS were located in hospitals in Catalonia, Andalusia and Madrid. One third of UEAS have been managing and studying SAD for more than 10 years, and 5 for more than 20 years. In total, 335 healthcare professionals were dedicated to SAD, including 249 physicians, 42 nurses and 44 administrative staff. 75% of UEAS are supported by nurses, 79% have specific administrative support and 98% have a specialized outpatient clinic. Hospitalization was necessary in only 9.5% of patients attended by UEAS, representing a mean of 2.2 beds/month. The hospital beds are shared with the Internal Medicine Department in more than 80% of cases. 91% of UEAS have an outpatient healthcare device to administrate intravenous therapies, 61% have a quick reference device for solving unexpected healthcare problems and 45% have a home care service shared with Internal Medicine. In 2011, UEAS provided health care to 24,700 patients, with a monthly mean of 1,100 first visits and 6,600 follow-up visits.

Conclusions: Comprehensive and specific care for patients with SAD has been developed by Systemic Autoimmune Diseases Units

(UEAS) of the main Spanish Internal Medicine Departments in the last two decades. The key role played by the work of SEMI in creating and strengthening internists' work in clinical areas such as autoimmune diseases has contributed to the consolidation and expansion of this specific targeted healthcare activity through the GEAS group.

IF-25
EFFECT OF ATORVASTATIN ON THE MODULATION OF ARTERIAL STIFFNESS AND BIOLOGICAL MARKERS INVOLVED IN SUBCLINICAL ATHEROSCLEROSIS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (PRELIMINARY STUDY)

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Objectives: Systemic lupus erythematosus (SLE) is a disease of multifactorial etiology, although it has been suggested the involvement of a dysfunction in the vascular repair which would lead to a premature atherosclerosis. Recently, interesting new data have demonstrated that statins have direct effects on the endothelium, that become them potential candidates in the treatment of SLE, not only for its role in the restoration of endothelial function and prevention of atherosclerosis, but also for its immunomodulatory properties that may reduce disease activity. The aim of this study was to evaluate the effect of treatment with atorvastatin in patients with SLE on classical cardiovascular risk factors, inflammatory markers, clinical parameters of disease activity and markers of subclinical atherosclerosis.

Material and method: Twenty-five women diagnosed with SLE were included in the study, with a median age of 41 years (range 26-63), who received during 8 weeks 20 mg daily of atorvastatin. All patients underwent at baseline (week 0) and at end of treatment (week 8), the determination of classical cardiovascular risk factors, biochemical and immunological markers, factors associated with lupus activity and estimation of biological markers by determining the number of circulating endothelial progenitor cells (EPC) and soluble proteins, as well as a determination of subclinical atherosclerosis by studying pulse wave velocity (PWV).

Results: Atorvastatin therapy was associated with a significant decrease in arterial stiffness measured by PWV (6.93 ± 1.45 vs 6.53 ± 1.06; p = 0.033). Regarding classical cardiovascular risk factors, we observed a significant decrease in total cholesterol levels (171.88 ± 39.36 vs 131.60 ± 34.22; p < 0.001) and LDL cholesterol (99.72 ± 66.5 ± 29.92 vs 29.52; p < 0.001). About factors related to SLE, our results showed a trend towards improvement in the SLEDAI score and an increase in C3 complement values bordering on statistical significance (102.99 ± 25.65 vs 107.54 ± 23.93; p = 0.05). On the study of biological markers, atorvastatin treatment was associated with a significant decrease in the values of soluble VEGF (vascular endothelial growth factor) (321.90 ± 250.27 vs 283.66 ± 223.23; p = 0.003) and a trend towards the reduction of some of the tested cytokines such as tumor necrosis factor (TNF) and interleukin 6 (IL-6). A decrease in the percentage of EPCs that does not reach statistical significance, was also noted (0.50 ± 0.58 vs 0.26 ± 0.16; p = 0.076).

Discussion: Our results suggest that an 8-week period atorvastatin treatment in patients with SLE, improves arterial elasticity measured by PWV. We also observed a trend towards improvement of disease activity and inflammatory activity, probably because there has been an endothelial repair and improvement of arterial elasticity, so it would reduce the demand for endothelial regeneration, migration of EPCs from the bone marrow and the expression of soluble factors.

Conclusions: The present study showed that a short-term treatment with atorvastatin in patients with SLE, could improve arterial elasticity measured by pulse wave velocity These preliminary findings must be confirmed by long-term multicentric studies designed to define the recommendation for statins in SLE patients.

IF-36
WELL-BEING AND QUALITY OF LIFE IN PATIENTS WITH INFLAMMATORY MYOPATHY

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Objectives: The inflammatory myopathies are chronic systemic connective tissue disorders affecting skeletal muscles and other organs including the skin, joints and lungs. Well-being and quality of life (QOL) are subjective perceptions of vitality (energy) and feeling well that can be described objectively. We measured the well-being and QOL in a large series of patients with inflammatory myopathy attended at our outpatient clinic and seek for clinical and biological correlations.

Material and method: The present study included 63 consecutive adult Caucasian patients diagnosed with idiopathic inflammatory myopathy who were followed regularly at our specialized outpatient clinic in Barcelona, Spain. The diagnosis of dermatomyositis (DM) and polymyositis (PM) was based on the criteria of Bohan and Peter. Characteristic clinical and histological features provided the diagnosis of inclusion body myositis (IBM). The WHO-Five Well-Being Index (1-6) and WHOQOL-BREF quality of life instruments (General QOL, general health, and 4 domains: physical health, psychological, social relationships and environmental, measured by Lickert scoring system which ranged from 1-5) adapted for use in Spanish population were employed. A series of ANOVAs and t-tests were conducted to examine differences between groups in well-being and QOL outcomes.

Results: Over a period of 12 months (January 2011 to January 2012), 63 consecutive patients (52 female), with mean (SD) age 50.7 (16.2) years diagnosed with inflammatory myopathy and followed at our outpatient clinic were prospectively evaluated for well-being and QOL. Patients were classified as having probable or definitive DM (47) or PM (14). Two were diagnosed as IBM. Physical health domain (mean [SD], 3.15 [0.44]), general QOL (3.16 [1.07]) and general health (2.65 [0.96]) had the lower mean values. Statistical significant association was observed between lower mean values in psychological domain and older age (> 60 yrs) (p = 0.03). Patients with DM obtained a significant better mean value in the physical health domain in comparison with the remaining patients (p = 0.048). No statistically significant associations were found between well-being and the mean duration of the disease, type of myopathy (DM vs PM), the presence of myositis-specific (Mi2, SRP, synthetase) or associated (Ro52, PM/Scl, Ku, RNP) autoantibodies, lung involvement or the presence of cancer.

Discussion: Myositis are chronic inflammatory diseases, so it makes sense to analyse the impact of these illness on well-being and QOL. Subjective well-being seems to rely on the personal feelings which go beyond having the disease or not. Our data supports this idea, since no differences have been observed between groups, clinical manifestations or immunological characteristics, nor along the time. Nevertheless, it cannot be discarded that an adaptative phenomenon to the chronicity of the disease occurs in these patients. That DM patients had a better score in the physical health domain, merits a comment. It could be

due to an initial more aggressive immunosuppressive therapy implemented in DM patients, which could achieve an apparent better evolution. Nevertheless, scales to measure activity index (MITAX/MYOACT) or cumulative damage due to myositis (Myositis Damage Index) are necessary weightings in order to a properly interpretation.

Conclusions: Well-being remains stable along the time in patients with inflammatory myopathy regardless the clinical characteristics or biological parameters. Older myositis patients in the psychological domain and patients with DM in the physical healthy domain behave in a different way in comparison with the remaining patients of the series.

IF-38
ANALYSIS OF SYSTEMIC RISK FACTORS IN WOMEN WITH SEVERE PREECLAMPSIA

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Objectives: 1) To analyze the prevalence of risk factors such as antiphospholipid antibodies, congenital thrombophilias, hypertension or hypothyroidism in a cohort of patients with severe preeclampsia. 2) To analyze the association between such risk factors and complicated preeclampsia.

Material and method: 88 women were studied in the Autoimmune Diseases Pregnancy Clinic after delivery following an episode of preeclampsia. Demographic and clinical variables, cardiovascular risk factors and variables associated with maternal complications and pregnancy outcome were analysed. In every woman, antiphospholipid antibodies, congenital thrombophilias (factor V Leiden, prothrombin 20210A mutation, protein C, protein S and antithrombin deficiency) and thyroid dysfunction were screened. Renal Doppler studies were performed in each patient. Complicated preeclampsia was considered in the presence of at least one of the following: thrombocytopenia, high liver enzymes, HELLP syndrome, eclampsia, prematurity or fetal death. A descriptive analysis of the results of the screening program for secondary preeclampsia was carried out. The possible relationship of antiphospholipid antibodies and/or congenital thrombophilias with complicated preeclampsia was analysed.

Results: The mean age (SD) of the patients was 33 (4.5) years. 60 (68%) were in their first pregnancy, 5 (5.7%) had a familiar history of preeclampsia and 45 (51%) had a familiar history of hypertension. 35 (40.2%) presented with at least one vascular risk factor: smoking 23 (26%), dyslipidemia 2 (2.3%), gestational diabetes 8 (9%) and hypertension 3 (3.4%). Complicated preeclampsia presented in 62 women (70.4%). Congenital thrombophilias were found in 10 women (11.3%): protein S deficiency 6 (6.8%); factor V Leiden 3 (3.4%); and prothrombin mutation 1 (1.1%). Positive antiphospholipid antibodies were found in 5 (6%). 8 patients (9.1%) had thyroid dysfunction and only 1 patient had renal artery stenosis. Congenital thrombophilias were not statistically related with complicated preeclampsia: 14.8% of patients with complicated preeclampsia had a congenital thrombophilia, vs 9.5% of those with non complicated preeclampsia, p = 0.71. Likewise, antiphospholipid antibodies were not present in a significantly higher proportion among women with complicated preeclampsia (5% vs 8%, respectively, p = 0.62).

Discussion: Preeclampsia remains a leading cause of maternal morbidity. It is associated with several potential risk factors, however their real impact is not well established. Also, an association between preeclampsia and late cardiovascular disease has been proposed. In this cohort of unselected women with preeclampsia, the prevalence of systemic risk factors was low. A worse prognosis of patients with congenital thrombophilia or antiphospholipid antibodies could not be demonstrated. Given the low prevalence of both conditions, their association with complicated preeclampsia cannot be however excluded. Higher numbers would be needed in order to reach more definitive conclusions.

Conclusions: The prevalence of congenital thrombophilias and antiphospholipid antibodies is low in unselected women with preeclampsia. The association of congenital thrombophilias and antiphospholipid antibodies with complicated preeclampsia could not be proven.

IF-45
CIRCULATING ENDOTHELIAL PROGENITOR CELLS (CEPC), CARDIOVASCULAR RISK FACTOR AND METABOLIC SYNDROME IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) PATIENTS

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Objectives: SLE is associated with a stricking increase in the risk of premature cardiovascular due to accelerated atherosclerosis, which significantly contributes to morbidity and mortality in this patients. While traditional risk factors may play a role in this increased propensity, they do not seem to fully account this complication. CEPC play an important role in the repair of vascular damage and it has been suggested that decreased numbers of this population are associated with increased subclinical atherosclerosis. Several studies demonstrate the existence of decreased number of CEPC in patients with cardiovascular risk factors in the general population. The objective of this study is correlate the CEPC with the cardiovascular risk factors and the metabolic syndrome in a population of SLE patients.

Material and method: Forty-six SLE female patients (> 4 ACR 1997 criteria) were included (mean age 45 years). At the time of the patient´s visit cardiovascular risk factors and SLE specific factors were assessed. CEPC were determinated in peripheral blood by flow cytometry with immunomagnetic enriched population of CD34+ cells. CEPC were considered as CD34+/CD133+/KDR+ (immature CEPC) and CD34+/KDR+ (total CEPC). The patients were diagnosed of metabolic syndrome, according the definition by the Adult Treatment Panel III.

Results: At the time of blood sampling 39 patients had inactive disease (SLEDAI < 4), no patient had a damage index (SLICC/ACR) over 6, even 13 patients had SLICC/ACR = 0. Thirteen patients had metabolic syndrome. The smokers, the hypertensive patients, those whit impaired fasting glucose and patients with metabolic syndrome showed a significative decrease of immature or total CEPC percentage subpopulation (Table 1).

Discussion: The association between CEPC and traditional risk factors has been widely studied in the general population of patients with cardiovascular disease. These studies have shown an association between the presence of risk factors and low concentrations CEPC. As for the LES there are few studies on the relationship of CEPC and cardiovascular risk factors with inconclusive results. In our study we observed a significative decrease in the percentage of CEPC in SLE patients with certain risk factors (hypertension, tobacco habit, impaired glucose metabolism) and metabolic syndrome.

Conclusions: Our work shows that CPEC are a new biomarker of cardiovascular risk factors in patients with SLE.

Table 1 (IF-45). Relationship between CEPC and cardiovascular rik factors in SLE patients

Total CEPC	Arterial Hypertension 0.5 ± 0.3	No Arterial Hypertension 1.2 ± 0.7	p 0.03
	Metabolic syndrome 0.79 ± 0.33	No Metabolic syndrome 1.3 ± 0.74	0.01
Immature CEPC	Impaired fasting glucose 0.4 ± 0.2	No Impaired fasting glucose 0.84 ± 0.5	0.02
	Tobacco habit 0.45 ± 0.2	No Tobacco habit 0.84 ± 0.5	0.008
	Metabolic syndrome 0.52 ± 0.25	No Metabolic syndrome 0.88 ± 0.57	0.02

IF-47
CLINICAL OUTCOME OF WOMEN WITH AUTOIMMUNE DISEASES IN A COMBINED MEDICAL-OBSTETRIC CLINIC: THE CRUCES AUTOIMMUNE DISEASES PREGNANCY CLINIC EXPERIENCE

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Objectives: To describe the clinical features, pregnancy outcomes and incidence of complications in a cohort of 116 pregnancies in patients diagnosed of autoimmune diseases attended in a combined medical-obstetric clinic.

Material and method: Retrospective review of 116 pregnancies attended at the Autoimmune Diseases Pregnancy Clinic. In this combined medical-obstetric Clinic, running since 2007, women are attended in a coordinated way by an obstetrician specialized in high risk pregnancies and an internist specialized in autoimmune diseases. Women are seen consecutively by both doctors, according to an agreed protocol that establishes the indication and timing for specific tests like placental Doppler studies or fetal echocardiograms. Indications for primary or secondary prophylaxis of preeclampsia or thrombosis have also been set up. Women are followed shortly after delivery and after the puerperium. Patients included in this study met criteria either for systemic autoimmune diseases such as systemic lupus erythematosus (SLE), antiphospholipid syndrome (APS), Sjögren syndrome and systemic sclerosis or were asymptomatic carriers of antinuclear antibodies, antiphospholipid antibodies and anti-Ro antibodies. Data on the previous medical and obstetric history of each woman and concerning the course of current pregnancy (including preconceptional counselling, treatments received, medical complications, such as thrombosis or disease flares, pregnancy outcomes or congenital heart block) were recorded in a database. Statistical descriptors of these variables were generated.

Results: The mean age of the cohort was 33.5 (SD 3.8) years. 35 women (30.2%) had suffered miscarriage in previous pregnancies and 12 (10.3%) reported previous fetal deaths. Preconceptional counselling was accomplished in 67 (57%) of patients. 102 pregnancies (87%) resulted in a live birth whereas 11 pregnancies (10%) ended in miscarriage and 3 (3%) were terminated due to fetal abnormalities. The prematurity rate was 12% and 7 (6.8%) of the newborns were small for gestational age. Preeclampsia occurred in 2 women (1.7%). One pregnancy was complicated with thrombosis. Among the 47 women with SLE (40.5% of the cohort), only one had activity 6 months previous to pregnancy. 9 patients (19%) had a history of nephritis, all in remission by conception. All women took hydroxychloroquine, 24 patients (51%) took low dose prednisone (mean dose 2.8 mg/d) and 8 patients (17%) were treated with azathioprine. This subgroup had a 85% live birth rate, with 15% miscarriages and no fetal deaths. The rate of prematurity was 20%. 11 women (23%) suffered a lupus flare, usually during the 2nd trimester and the puerperium. All but one (a severe vasculitic flare) were mild, mostly at the cutaneous-articular level. One pregnancy was complicated with preeclampsia. No thrombosis was seen. The APS subgroup, with a previous rate of 75% of either miscarriages or fetal deaths, showed a live birth rate of 83%, a miscarriage rate of 16% and a preterm birth rate of 20%. No patients suffered thrombosis and with only 1 case of preeclampsia. No congenital heart blocks were seen in babies born to the 25 anti-Ro positive mothers.

Discussion: The obstetric outcome was greatly improved in the group of women with APS. Preeclampsia, thrombosis and lupus flares were minimised due to adequate pregnancy planning and correct prophylaxis in high risk patients.

Conclusions: The good medical and obstetric outcomes of this cohort of women with autoimmune diseases remark the importance of a coordinated care by specialists in autoimmune diseases and high risk pregnancies. Preconceptional counselling, adequate management of medication, structured obstetric surveillance and close collaboration between specialists are important factors to improve final results.

IF-56
PERIPHERAL ARTERIAL DISEASE IN PATIENTS WITH ANTIPHOSPHOLIPID ANTIBODIES

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Objectives: 1) To analyze the prevalence of peripheral arterial disease (PAD), cardiovascular disease (CVD) and cardiovascular risk factors in a cohort of patients with antiphospholipid antibodies (APL). 2) To identify potential predictors of PAD in patients with APL.

Material and method: 172 patients from the APS-Cruces prospective observational cohort were recruited. This cohort enrolls patients with APS, both primary and secondary to systemic autoimmune diseases, mostly SLE, as well as APL carriers, with and without lupus, but with no previous thrombotic events. The ankle-brachial index (ABI) was determined in every patient, with an ABI < 0.9 having a good correlation with the presence of PAD. A number of variables contained in the cohort database were analysed: demographic (age, sex, race) clinical and immunological (fulfillment of APS criteria, presence of SLE, APL profile, time of follow-up), presence of traditional vascular risks factors, previous cardiovascular events, cardiovascular risk calculated by SCORE and treatments received. A descriptive analysis of the cohort was generated. Potential risk factors for the presence of a low ABI were explored by means of chi-square/Fisher exact test as appropriate.

Results: The study group consisted of 172 patients. 85 patients (49%) fulfilled APS criteria and 87 (51%) were APL carriers without thrombosis. 23 patients (13%) had a SLE-associated APS. 130 patients (76%) were women. The mean age (SD) was 50 years (14) at the time of the study and 41 years (16) at enrolment in the cohort. The mean follow-up (SD) was 9 years (8). 71 (41%) patients had had any thrombosis, with 80 total events. 35 events (44%) were venous and 45 (56%) were arterial thrombosis. 94 patients (72% of the 130 women) had previous pregnancies, with 30 (17%) miscarriages and 18 (10%) fetal deaths. The frequency of

cardiovascular risk factors was as follows: smoking 41 patients (24%), high blood pressure (HBP) 72 patients (42%), diabetes 17 patients (10%), dyslipidemia 86 patients (50%) and family history of cardiovascular events 25 patients (15%). Previous symptomatic arterial disease was present in 52 patients (30%): chronic renal disease 16 patients (9%), stroke 38 patients (22%), ischemic heart disease 7 patients (4%); PAD 4 patients (2%). 34 patients had a low ABI, with a prevalence of 20%. The reported prevalence in the general Spanish population 45 to 55 year old is 1.1% in males and 2.1% in females. Patients with low ABIs had a higher frequency of dyslipidemia (27% vs13%, p = 0.02), more previous PAD (12% vs 0%, p < 0.001), and had smoked more cigarettes (33 vs 19 pack-years, p = 0.011). These patients were treated more frequently with statins (27% vs 13%, p = 0.019). Among patients who fulfilled APS criteria, 15 (18) had a low ABI. In this subgroup, patients with low ABI were more frequently current smokers and previous smokers than never smokers (35%, 16% vs 5%, p = 0.039), had PAD (20% vs 0%, p = 0.005) and miscarriages more frequently (36% vs 10%, p = 0.039) than patients with a normal ABI. Among patients with APL without APS, those with a low ABI (19.22%) were older (58 (16) vs 50 years (15), p = 0.04), had smoked more pack-years (42 vs 19, p = 0.003), had more dyslipidemia (36% vs 13%, p = 0.01) and had been treated with statins more frequently (13% vs 34%, p = 0.021). Patients with APL and a normal ABI had been treated more frequently with antimalarials (36.7% vs 14%, p = 0.015).

Discussion: This study shows evidence of PAD in 1/5 patients with APL. The presence of PAD was mostly related with classical cardiovascular risk factors and was not influenced by the presence of SLE or APS or the APL profile. A protective effect of hydroxychloroquine was evident in patients with APL who did not fulfil criteria for APS.

Conclusions: The prevalence PAD is higher in individuals with APL than in the general population dyslipidemia and smoking were associated with PAD. Hydroxychloroquine was protective in individuals with APL without APS.

IF-57
LIFE-THREATENING CRYOGLOBULINEMIC VASCULITIS ASSOCIATED WITH HEPATITIS C VIRUS INFECTION CLINICAL DESCRIPTION AND OUTCOMES OF 29 CASES FROM A SINGLE CENTER

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Objectives: To analyze the clinical characteristics and outcomes of HCV patients presenting with life-threatening cryoglobulinemic vasculitis.

Material and method: We evaluated 89 patients diagnosed with cryoglobulinemic vasculitis consecutively admitted to our Department between 1995 and 2010. All patients fulfilled the 2010 classification criteria for cryoglobulinemic vasculitis. We reviewed clinical charts of the 181 admissions of these patients searching for life-threatening presentation of cryoglobulinemia. The following organ involvements were considered as potentially life-threatening in HCV patients with cryoglobulinemic vasculitis: cryoglobulinemic, biopsy-proven glomerulonephritis presenting with renal failure, gastrointestinal vasculitis, pulmonary hemorrhage, CNS involvement. We identified 36 patients with 43 admissions due to life-threatening cryoglobulinemia, of whom 29 had HCV-related cryoglobulinemia (the remaining 7 had essential cryoglobulinemia).

Results: A total of 29 patients from our Department fulfilled the inclusion criteria: 20 presented with renal failure, 10 with gastrointestinal vasculitis, 4 with pulmonary hemorrhage and 3 with CNS involvement; 7 patients presented with more than one life-threatening cryoglobulinemic manifestation. There were 14 (48.2%) women and 15 (51.7%) men, with a mean age at diagnosis of cryoglobulinemia of 54.2 years (range, 25 to 82) and a mean age at life-threatening involvement of 57.2 years (range, 25 to 82). In 13 (44.8%) patients, life-threatening involvement was the first clinical manifestation of cryoglobulinemia. Severe involvement appeared a mean of 3.6 years (range 1-30) after the diagnosis of cryoglobulinemic vasculitis. Patients were followed for a mean of 45.5 months (range, 0 to 192) after the diagnosis of life-threatening cryoglobulinemia. Sixteen patients (55%) died. The highest rate of mortality was found in patients presenting with pulmonary hemorrhage (100%), followed by those with gastrointestinal vasculitis (70%), CNS involvement (66%) and renal failure (50%).

Conclusions: HCV-related cryoglobulinaemia may result in progressive (renal involvement) or acute (pulmonary hemorrhage, gastrointestinal ischemia, CNS involvement) life-threatening organ damage. The mortality rate of these manifestations ranges between 50% and 100%. Unfortunately, this may be the first cryoglobulinaemic involvement in almost two-thirds of cases, highlighting the complex management and very elevated mortality of these cases.

IF-58
CHARACTERIZATION OF SYSTEMIC INVOLVEMENT USING THE EUROPEAN 2010 ESSDAI INDEX IN 921 SPANISH PATIENTS WITH PRIMARY SJÖGREN SYNDROME (GEAS-SEMI-SS REGISTRY)

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Objectives: To measure systemic activity using the new 2010 European EULAR-SS disease activity index (ESSDAI) in a large cohort of Spanish patients with primary Sjögren syndrome (SS).

Material and method: The GEAS-SS multicenter registry was formed in 2005 with the aim of collecting a large series of Spanish patients with primary SS, and included thirteen Spanish reference centers with substantial experience in the management of SS patients. By March 2012, the database included 921 consecutive patients, recruited since 1994, fulfilling the 2002 classification criteria for primary SS. Systemic involvement was characterized using the definitions included in the European ESSDAI activity index that classify systemic involvement into 12 domains (i.e. organ systems). Each domain is divided in 3-4 levels according to their degree of activity and scored as 0 (no activity), 1 (low activity), 2 (moderate activity) or 3 (high activity). These points are then multiplied by an assigned weight factor, ranging from 1 to 6, with the total score ranging from 0 to 123 points. We retrospectively calculated the following ESSDAI scores analysing the medical charts of all patient.

Results: The mean cumulative ESSDAI score in the cohort was 9.27 ± 0.30, which was of 6.62 ± 0.34 at diagnosis and of 4.16 ± 0.34 before diagnosis (new activity). The percentage of patients who presented activity (score at least 1) at the time of diagnosis in the

different domains ranges between 41% and 82%, with the higher percentages found for the laboratory and glandular domains and the lower for the pulmonary and renal domains. The predominant degree of activity was low in the constitutional, lymphadenopathy, glandular, articular, hematological and biological domains, while a moderate/high degree of activity predominates in the pulmonary, renal, muscular and neurological domains. Higher mean cumulative ESSDAI scores were found in male patients ($p = 0.016$), those with positive salivary gland biopsy ($p = 0.012$), anemia ($p < 0.001$), leukopenia ($p < 0.001$), thrombocytopenia ($p = 0.001$), lymphopenia ($p < 0.001$), ESR > 50 mm/h ($p < 0.001$), anti-Ro/SS-A ($p = 0.014$), anti-La/SS-B ($p < 0.001$), low C3 ($p < 0.001$), low C4 ($p < 0.001$), serum monoclonal band ($p < 0.001$) and cryoglobulins ($p < 0.001$); the mean ESSDAI score at diagnosis was higher in patients with anemia ($p = 0.019$), anti-La/SS-B antibodies ($p = 0.007$), monoclonal band ($p = 0.039$) and cryoglobulins ($p < 0.001$).

Conclusions: The measurement of systemic activity using the new European 2010 EULAR-SS disease activity index (ESSDAI) provides a reliable picture of disease activity (measured organ by organ) in a large cohort of Spanish patients with primary SS.

IF-62
CYSTATIN C AS A MARKER OF CARDIOVASCULAR RISK FACTOR IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Objectives: Cystatin C (CysC) is a protein with a low molecular weight produced by most cells that has been considered as an excellent marker of glomerular filtration rate (GFR). It is freely filtered at the glomerulus, reabsorbed and catabolized in the proximal renal tubules. Since there is no tubular secretion, CysC is extremely sensitive to small changes in GRF. In addition to its utility as a measure of renal function, it hast been suggested that CysC provides independent prognostic information about cardiovascular (CV) risk. SLE is associated with a striking increase in the risk of premature CV complications due to accelerated atherosclerosis, which significantly contributes to morbidity and mortality in this patient population. The aim of this study was to evaluate the association of CysC serum levels with CV risk factors and subclinical atherosclerosis in SLE patients.

Material and method: We recruit 42 female SLE patients (> 4 ACR 1997 criteria) from outpatient clinics with a median age of 44.2 [19-63]. Patients were selected according to estimated GFR (Crockoft-Gault) ≥ 60 ml/min/1.73 m^2. Data collected included demographics, renal function parameters, SLE activity (SLEDAI index), disease damage (SLICC/ACR index), patient treatment, CV risk factors, inflammatory markers and subclinical atherosclerosis. CysC level was measured using a particle-enhanced immunonephelometric assay. CysC normal level is defined as 0.59-1.01 mg/l. Arterial stiffness, as subrogate of subclinical atherosclerosis, was assessed measuring the carotid-femoral pulse wave velocity (PWV) by Doppler velocimetry.

Results: A positive correlation between CysC values and renal damage parameters was found in the case of creatinine ($p = 0.001$) and microalbumin/creatinine ratio ($p < 0.05$), but not in case of creatinine clearance. Evaluating traditional cardiovascular risk factors, we obtained a significant association ($p < 0.05$) between increased levels of CysC and age, hypertension, hyperlipidemia, metabolic syndrome, body mass index, high homocysteine level and waist circumference. About SLE related factors, a significant association was found between increased CysC levels and the SLICC/ACR score, while no correlation has been shown with patients SLEDAI or any immunosuppressive therapy. However, patients under ACE inhibitors or statins therapy presented a significant increased ($p < 0.05$) in CysC level. In the same way, CysC level correlates with patient arterial stiffness assessed by PWV ($p = 0.015$). A second analysis including only patients without any renal impairment ($n = 30$), defined as GFR ≥ 60 ml/min/1.73 m^2 and normal urinary albumin to creatinine rate, was carried out. No association between CysC levels and any of the CV risk factors, SLE related factors and arterial stiffness was found.

Discussion: Most of the studies associate high serum CysC level as a marker of renal damage, but the relationship as an independent CV risk factor is questionable. In our study, carried out selecting patients with good renal function, CysC correlates with CV risk; but when urinary albumin to creatinine rate is considered as a renal function parameter, CysC lose the association as independent factor of CV risk.

Conclusions: In our SLE patients, serum CysC correlates with renal function but it is not independently associated with cardiovascular risk factor or subclinical atherosclerosis.

IF-65
CLINICAL AND LABORATORY VARIABLES ASSOCIATED WITH DAMAGE AT DIAGNOSIS OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: 1. To describe the clinical an immunological characteristics at enrolment of an inception cohort of patients with systemic lupus erythematosus (SLE). 2. To analyse the predictors of damage at diagnosis.

Material and method: Analysis of patients from the multicentric inception cohort RELES who have completed 6 months after the diagnosis of SLE. All patients are enroled at the time of diagnosis. Data are collected prospectively, and introduced in a computerised database with web access via an individual password. Demographic, clinical, laboratory, immunological and therapeutic variables, including the SLICC damage index (SDI) and the Systemic Lupus Activity Disease Activity Index (SLEDAI) are collected at diagnosis and at least once-yearly. In this study we have used the initial SDI, measured 6 months after the diagnosis, as the dependent variable. As independent variables, we used: age, gender, cigarette smoking, arthritis, lymphopenia, active nephritis, ANA (antinuclear antibodies), anti-DNA antibodies, antiphospholipid antibodies and complement levels. Univariate analysis was first performed. All variables with a p value < 0.1 were then introduced in a multivariant multiple linear regression model in order to identify independent predictors of damage.

Results: 83 patients (93%) were women, 77 Caucasian (86%), 25 smokers (28%). The mean age at diagnosis (SD) was 43.75 (16.35) years. 40 patients (45%) met 4 ACR criteria, 38 (43%) met 5 criteria and 11 (12%) met more that5 criteria. At enrolment, 68 patients presented with arthralgia (76%), 40 with arthritis (45%), 46 with photosensivity (52%), 43 with lymphopenia (48%), 14 with lupus nephritis (16%), 13 with pleuritis (15%) and 10 with pericarditis (11%). Thrombosis were present in 12 patients (13%): 4 had venous thrombosis (4%), 2 pulmonary thromboembolism (2%), 3 ischaemic stroke (3%), 1 transient ischaemic attack (1%), 1 myocardial infarction (1%) and 1 small vessel thrombosis at the CNS level (1%). The autoimmunity profile of the studied population was: ANA 87 patients (98%), antiDNA 57 (64%), antiRo 36 (40%), antiLa 13 (15%), antiSm 15 (17%), anti-U1RNP 15 (17%), lupus anticoagulant 17 (19%), IgG anticardiolipin antibodies (aCL) 15 (17%), IgM aCL 13 (14%), IgG antiB2-GP1 9 (10%) and IgM antiB2-GP1 8 patients (9%). 65 patients (73%) had no damage at diagnosis (SDI = 0). Among the remaining

patients, 10 (11%) had a SDI = 1; 9 (10%) had a SDI = 2, 3 patients (3%) a SDI = 3 and one each (1%) had a SDI = 4 and a SDI = 6. In the univariate analysis only the age was associated with the SDI score at diagnosis ($p < 0.0001$). The presence of lupus nephritis showed a borderline significance ($p = 0.069$). In the multiple regression model including these two independent variables, only the age at enrolment showed a significant independent association with damage as measured by SDI.

Discussion: This is the first Spanish multicentric inception cohort of patients with SLE. The clinical profile of patients shows a clear predominance of Caucasian patients with a low incidence of severe organ involvement at enrolment. However, lupus nephritis was present in 16% of patients and thrombosis was seen in a similar proportion. Damage at the time of diagnosis was seen in roughly 1/3 of patients, with a strong predilection for organ domains related to atherothrombotic manifestations. As expected, variables related with disease activity or therapy were not associated with initial damage. Rather, the age at the time of diagnosis was the only independent predictor of the initial SDI score.

Conclusions: The preliminary analysis of the first Spanish multicentric inception cohort of patients with SLE shows a relatively mild disease activity at presentation. Irreversible organ damage was seen at diagnosis in 27% of patients, mainly secondary to atherothrombotic disease. The age at diagnosis was the only predictor of damage.

IF-66
ASSOCIATION BETWEEN LUPUS ACTIVITY, ORGAN DAMAGE AND IMMUNOSUPPRESSIVE THERAPY

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Objectives: To describe the initial treatment prescribed to recently diagnosed lupus patients and to analyse the relation between global and specific organ activity and the different immunosuppressive drugs.

Material and method: Analysis of patients from the Spanish multicentric inception cohort RELES who have completed 6 months after the diagnosis of SLE. All patients are enroled at the time when 4 ACR classification criteria are met. Data are collected prospectively, and introduced in a computerised database with web access via an individual password. Demographic, clinical, laboratory, immunological and therapeutic variables, including the SLICC damage index (SDI) and the Systemic Lupus Activity Disease Activity Index (SLEDAI) are collected at diagnosis and at least once-yearly. In this study, lupus activity has been classified as low (SLEDAI < 6) or high (SLEDAI ≥ 6). The calculated mean daily prednisone doses in the first 6 months have been divided in low (≤ 7.5 mg/d), medium (> 7.5-30 mg/d) and high (> 30 mg/d). Descriptive statistics were generated. The relation of the different drugs with SLEDAI scores and specific organ involvement were analysed by univariate tests.

Results: 83 patients (93%) were women, 77 Caucasian (86%). The mean age at diagnosis was 43.75 + 16.35 years. 4 patients (4.5%) had a SLEDAI = 0 at enrolment. The remaining 95.5% had a SLEDAI ≥ 1, with a mean (SD) SLEDAI of 8.68 (6.67). 56 patients (62.9%) had a SLEDAI ≥ 6. 79 patients (89%) received antimalarials and 59 (67%) prednisone (with 5 additional patients taking deflazacort). 14 (16%) patients required iv. methyl-prednisolone, 18 (20%) were treated with azathioprine, 8 (9%) with iv. cyclophosphamide, 4 (4%) with methotrexate and 19 (21%) con mycophenolate. 2 patients (2%) were treated with biologic agents. Within the 6 months after enrolment, the mean prednisone dose (SD) was 13.7 mg/d (10.2) with a median dose of 11.22 (range 0.67-45.39). 23 patients (26.4%) received low doses, 32 (36.8%) medium doses and 4 (4.6%) high doses. 18 patients (56.3%) with low activity were not taking corticosteroids, 6 (18.8%) received low doses and 8 (25%) medium doses, with no patients taking high doses of prednisone. In comparison, in the group with high lupus activity, only 10 patients (18.2%) did not receive prednisone, 17 patients (30.9%) received low doses, 24 (43.6%) medium doses and 4 /7.3%) high doses ($p = 0.002$). The mean daily dose of prednisone in the first 6 months was significantly lower in the group with low activity, (median 0 mg/d vs 8.1 mg/d, respectively, $p = 0.001$). A significantly higher dose of prednisone was given to patients with nephritis ($p < 0.001$), anti-DNA antibodies (p 0.01) and low C3 and C4 levels ($p = 0.017$ and $p = 0.033$, respectively). Among the remaining immunosuppressive drugs, only cyclophosphamide and mycophenolate were used more frequently among patients with an SLEDAI ≥ 6 ($p = 0.047$ and $p = 0.018$, respectively). In fact, both drugs had a statistically significant association with the presence of lupus nephritis ($p < 0.001$ for both variables). There was no relation between disease activity and treatment with antimalarials, which were used in roughly 90% of patients in both the high and low activity groups ($p = 1.0$). Likewise, patients with and without lupus nephritis received antimalarials in a similar proportion (85% and 89%, respectively, $p = 1.0$).

Conclusions: Most patients in the RELES cohort received antimalarials as baseline treatment, independently of the degree of disease activity or specific organ involvement. Prolonged treatment with high doses of prednisone is exceptional. However, mean daily doses above 7.5 mg/d were given to more than 1/3 of the cohort within the first 6 months after diagnosis. Prednisone, cyclophosphamide and mycophenolate were used according to SLE activity and the presence of lupus nephritis.

IF-70
CLINICAL AND IMMUNOLOGICAL CHARACTERIZATION OF PRIMARY SJÖGREN SYNDROME IN SPAIN ANALYSIS OF 921 PATIENTS (GEAS-SEMI-SS REGISTRY)

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Objectives: To analyse the epidemiological, clinical and immunological characteristics of a large cohort of Spanish patients diagnosed with primary Sjögren syndrome (SS).

Material and method: The GEAS-SS multicenter registry was formed in 2005 with the aim of collecting a large series of Spanish patients with primary SS, and included 21 Spanish reference centers with substantial experience in the management of SS patients. By March 2012, the database included 921 consecutive patients, recruited since 1994, fulfilling the 2002 classification criteria for primary SS.

Results: The cohort included 867 (94%) women and 54 (6%) men (female:male ratio, 16:1), with a mean age at diagnosis of primary SS of 53.81 ± 0.49 years (range, 14-88) and a disease evolution ranging from 6 to 360 months (mean, 74.9 + 4). Eight hundred and eighty two (96%) patients presented xerostomia, 878 (95%) xerophthalmia, 805/863 (93%) had altered ocular diagnostic tests

(Schirmer's test and/or rose Bengal staining), 598/676 (88%) altered parotid scintigraphy and 424/482 (88%) a salivary gland biopsy showing lymphocytic infiltrates grade 3 or 4. Three hundred and nine (34%) patients had cytopenia, including anemia (17%), leukopenia (20%) and thrombocytopenia (8%). The main immunologic features were ANA > 1/80 in 831/919 (90%) patients, anti-Ro/SS-A in 666/917 (73%), RF in 503/890 (57%), anti-La/SS-B in 419/914 (46%), low C3 levels in 80/864 (9%), low C4 levels in 102/863 (12%) and cryoglobulinemia in 81/652 (12%). Systemic involvement included articular involvement (56%), parotid enlargement (34%), respiratory involvement (13%), cutaneous involvement (13%), peripheral nervous system involvement (10%), lymphadenopathy/lymphoma (10%), renal involvement (5%) and central nervous system involvement (3%).

Conclusions: The broad heterogeneity in the clinical and analytical features of primary SS observed in this large cohort of patients suggests that SS should be considered a systemic disease more than a sicca-limited disease. Most of the clinical features and laboratory abnormalities present in primary SS patients are not included in the current 2002 classification criteria.

IF-71
MEASURING DISEASE ACTIVITY OF PRIMARY SJÖGREN SYNDROME USING THE EUROPEAN ESSDAI SCORE: IDENTIFICATION OF PREDICTIVE BASELINE FACTORS (GEAS-SEMI-SS REGISTRY)

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Objectives: To evaluate the association between baseline epidemiological, clinical and immunological features and cumulative activity scores in a large cohort of Spanish patients diagnosed with primary Sjögren syndrome (SS).

Material and method: The GEAS-SS multicenter registry was formed in 2005 with the aim of collecting a large series of Spanish patients with primary SS, and included thirteen Spanish reference centers with substantial experience in the management of SS patients. By March 2012, the database included 921 consecutive patients, recruited since 1994, fulfilling the 2002 classification criteria for primary SS. Systemic involvement was characterized using the definitions included in the ESSDAI activity index. Each domain is divided in 3-4 levels according to their degree of activity and scored as 0 (no activity), 1 (low activity), 2 (moderate activity) or 3 (high activity). We retrospectively calculated the following ESSDAI scores analysing the medical charts of all patient.

Results: The cohort consisted of 921 patients, including 867 (94%) women and 54 (6%) men with a mean age at diagnosis of 54 years (range, 14-88). The domains that reached an individual mean ESSDAI score higher than 1 were the articular domain at diagnosis, and the articular, pulmonary, peripheral nervous system and hematological domains in the cumulative ESSDAI score. The variables at diagnosis that showed statistically-significant differences in the mean ESSDAI scores of the greater number of clinical domains were cryoglobulinemia (7 domains), anemia (5 domains), lymphopenia (4 domains) and ESR > 50 mm/h, anti-Ro/SS-A, low complement values and monoclonal band (3 domains). In contrast, other variables were not significantly associated with the mean ESSDAI scores of any clinical domain (leukopenia, neutropenia, ANA and RF).

Conclusions: Cytopenias (anemia and lymphopenia), anti-Ro/SS-A antibodies and cryoglobulinemic-related features (cryoglobulins, hypocomplementemia and monoclonal gammopathy) at diagnosis are key markers of cumulated systemic activity in patients with primary SS. These features are not included in the current 2002 classification criteria, and it may be time to re-evaluate the diagnosis and classification of primary SS according to these findings.

IF-74
USE OF BIOLOGICAL THERAPIES IN 430 PATIENTS WITH SEVERE AND/OR REFRACTORY SYSTEMIC AUTOIMMUNE DISEASES: BIOGEAS REGISTRY

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Objectives: To analyze the efficacy and safety of biologic therapies in patients with severe and/or refractory systemic autoimmune diseases (SAD).

Material and method: In 2006, the Autoimmune Diseases Study Group (GEAS) of the Spanish Society of Internal Medicine created the BIOGEAS registry, a multicenter study designed to collect data on the use of biological therapies in patients with systemic autoimmune diseases refractory to conventional treatment (failure at least of two immunosuppressants). The information is collected from cases reported by members of GEAS (last updated: 30 June 2012).

Results: 430 patients with SAD treated with biological agents were included in the BIOGEAS registry, 325 (77%) women and 99 (23%) men, with a mean age of 56 years, affected by the following diseases: SLE 172 (40%), inflammatory myopathy 47 (11%), Behçet disease 34 (8%), Wegener granulomatosis, 28 (7%), Sjögren syndrome 26 (6%), uveitis 17 (4%), cryoglobulinemia 16 (4%) PTI 16 (4%), APS 10 (2%), Still disease 9 (2%), scleroderma 7 (2%), sarcoidosis 7 (2%), autoimmune hemolytic anemia 6 (2%), mixed connective tissue disease 5 (2%) and other pathologies 26 (6%). The biological treatment consisted in rituximab in 365 (76%), infliximab in 42 (10%), adalimumab in 31 (7%), etanercept in 22 (5%), anakinra in 4 (1%). In 4 (1%) patients other biological therapies were employed. They were heavily treated patients, who had previously received corticosteroids (410, 97%) and immunosuppressants (357, 84%), including cyclophosphamide (209, 49%), methotrexate (144, 34%), mycophenolate (127, 30%), azathioprine (128, 30%), cyclosporine A (71, 17%), tacrolimus (21, 5%) and leflunomide (7, 2%). Immunoglobulins were employed in 103 (24%) and plasma exchange in 11 (2.6%). Biological therapies were administered in combination with corticosteroids (390, 92%), immunosuppressants (242, 57%), immunoglobulins (16, 4%) and plasma exchange (11, 3%). We could evaluate the response in 398 patients, observing a complete response (CR) in 199 (49%), a partial response (PR) in 114 (28%) and

no response (NR) in 85 (21%). The time of follow-up was 27 months. During the follow-up period 72 patients (17%) relapsed and 85 (20%) suffered any adverse event, consisted in infections (49, 12%), adverse events related to the infusion (18, 4%) and other adverse events (30, 7%). During the follow up 26 patients (6%) died, being the most frequent causes progression of the disease (7 cases), infection (6), cardiovascular disease (5), and neoplasic disease (3).

Conclusions: The off-label use of biologic therapies in patients with SAD and severe or refractory manifestations could be effective and safe, being the use of rituximab in SLE the scenario in which we have more experience.

IF-76
TREATMENT OF SEVERE AND/0R REFRACTORY SYSTEMIC LUPUS ERYTHEMATOSUS WITH RITUXIMAB: ANALYSIS OF 171 PATIENTS

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Objectives: To evaluate the efficacy and safety of rituximab in patients with systemic lupus erythematosus (SLE) and severe involvement refractory to conventional treatment.

Material and method: In 2006, the Autoimmune Diseases Study Group (GEAS) of the Spanish Society of Internal Medicine created the BIOGEAS registry, a multicenter study designed to collect data on the use of biological therapies in patients with systemic autoimmune diseases refractory to conventional treatment (failure at least of two immunosuppressants). The information is collected from cases reported by members of GEAS (last updated: 30 May 2012).

Results: 171 SLE patients treated with rituximab have been included in the registry (151 women and 19 men, with a mean age of 45 years. The clinical manifestations presented by these patients that motivated the indication were as follows: glomerulonephritis (83 cases, 49%), hematologic involvement (53 cases, 31%), skin involvement (22 cases, 13%), arthritis (17 cases, 10%), pulmonary involvement (14 cases, 8%), serositis and myocarditis (12 cases, 7%), CNS involvement (8 cases, 5%), gastrointestinal involvement (5 cases, 3%). They were heavily treated patients, who had previously received corticosteroids and an average of 2.1 immunosuppressants, including cyclophosphamide (114 cases, 67%), mycophenolate (79, 47%), methotrexate (63, 37%), azathioprine (62, 37%), cyclosporine A (10, 6%), tacrolimus (7, 4%), leflunomide (4, 2%). 44 (26%) received immunoglobulins. In 101 (59%) concomitant immunosuppressive therapy was added to rituximab. We could evaluate the response in 162 patients, of whom 129 (80%) patients had a favorable response to treatment (47% complete response, partial response 33%, 20% no response). The response to treatment by organ was as follows (analyzed those organs with a minimum of 5 cases): kidney (49/77 patients, 77%), hematological (42/50, 84%), skin (13/22, 59%), arthritis (13/15, 86%), lung (12/14, 86%), CNS (6/8, 75%), myocarditis and serositis (9/12, 75%). The time of follow-up was 24 months. 30 patients (17%) suffer a relapse during follow up. 30 (18%) patients suffered an adverse event, including 18 (11%) an infection, 4 (2%) an adverse event related to infusion and 11 (7%) other adverse events. During the follow-up period died 10 (6%) patients, 3 of which died from disease progression and 2 because of infectious complications, 3 patients due to heart failure, 1 to lung embolism and 1 due to unknown cause.

Conclusions: Rituximab may be an effective and safe option for patients with severe SLE refractory to conventional treatment. Renal disease and hematologic disturbances are the manifestations that accumulates more experience in BIOGEAS registry.

IF-77
CLINICAL PATTERNS AND SYSTEMIC CORRELATIONS IN A COHORT OF POSTERIOR UVEITIS AND PANUVEITIS OF PREVIOUSLY UNKNOWN ETIOLOGY

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Objectives: To describe clinical patterns, causes and systemic disease associations in a group of patients with posterior uveitis and panuveitis.

Material and method: Prospective study of 123 consecutive patients with uveitis referred to the Uveitis Unit of our hospital from January 2008 to May 2012. Patients with postoperative or traumatic endophthalmitis were not included. Uveitis were categorized as posterior or panuveitis using the International Uveitis Study Group classification. The causative diagnoses for specific ocular entities or systemic diseases were based on clinical history, ophthalmologic examination, and standard baseline investigations which included blood and urine analyses, VDRL test for syphilis, a chest X-ray and tuberculin skin test. Other specific tests were carried out according with the medical history. Standard diagnostic criteria were employed for all entities of uveitis and systemic diseases related to. Data were analyzed with the statistic pack SPSS 15.0 for windows.

Results: Among the 123 patients included in our study, 37 (30%) had posterior uveitis (22 cases) or panuveitis (15 cases). 59.5% were bilateral, mean ages was 32.6 years (10-68) and 51.4% were women. We achieved a specific diagnosis in 91.9% of the cases: 37.8% were of infectious origin (14 patients), 29.7% were associated with a systemic disease (11 patients) and 18.9% had a specific ocular condition (7 patients). Toxoplasmosis was found to be most common (24.3%, 9 cases), followed by Behçet's disease (6 cases, 16.2%). Idiopathic uveitis was found in 3 patients (8.1%). Infectious uveitis was significantly associated with acute presentation ($p = 0.008$) and absence of extra ocular clinical data ($p = 0.001$). Regarding the treatment, 43.2% (16 patients) received corticosteroids and 37.8% corticosteroid-sparing therapy (14 patients) such as azathioprine (8 patients), cyclosporine (8 patients), methotrexate (4 patients), cyclophosphamide (1 patient) and biologic drugs (4 patients).

Discussion: Uveitis is a major cause of severe visual impairment throughout the world. It comprises a large group of diseases characterized by intraocular inflammation involving not only the uveal tract, but also the retina, optic nerve, and vitreous. Sometimes, ocular inflammation is the initial manifestation of an undiagnosed systemic disease. Thanks to a multidisciplinary work we found a specific etiology in 91.9% of posterior uveitis and panuveitis. The most frequent etiology was infectious disease, and among them, toxoplasmosis, followed by Behçet's disease. Corticosteroid-sparing therapy has an important role in the treatment of these patients.

Conclusions: 1. A very high percentage of posterior uveitis and panuveitis in our series result to have a specific etiology (91'9%). 2.

A stepwise approach is essential while evaluating patients with uveitis: an exhaustive approach comprising a full battery of tests is out of indication. 3. Our results emphasize the usefulness of the collaboration with the internist and/or rheumatologist in the diagnostic and therapeutic management of uveitis.

IF-78
TREATMENT OF REFRACTORY PRIMARY INFLAMMATORY MYOPATHIES WITH BIOLOGICAL THERAPY CLINICAL EXPERIENCE IN 47 PATIENTS: BIOGEAS REGISTRY

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Objectives: To evaluate the efficacy and safety of rituximab in patients with primary inflammatory myopathies and severe involvement refractory to conventional treatment.

Material and method: In 2006, the Autoimmune Diseases Study Group (GEAS) of the Spanish Society of Internal Medicine created the BIOGEAS registry, a multicenter study designed to collect data on the use of biological therapies in patients with systemic autoimmune diseases refractory to conventional treatment (failure at least of two immunosuppressants). The information is collected from cases reported by members of GEAS (last updated: 30 May 2012).

Results: 47 patients treated with primary inflammatory myopathies treated with biological agents have been included in the registry (34 women and 8 men, with a mean age of 49 years) are included in the BIOGEAS registry, of which 31 (66%) suffered dermatomyositis, 15 (32%) polymyositis and 1 (2%) inclusion body myositis. In 9 (18%) an antisynthetase syndrome was observed. They were heavily treated patients, who had previously received corticosteroids and an average of 2.1 immunosuppressants, including cyclophosphamide (26 cases, 58%), methotrexate in 18 (40%), azathioprine in 16 (36%), cyclosporine in 15 (33%), mycophenolate in 14 (31%), tacrolimus 5 (11%) and leflunomide 1 (2%). 44 (26%) received immunoglobulins. Clinical manifestations that prompted the use of rituximab were: myositis in 35 (80%), skin involvement in 15 (34%), interstitial lung disease in 11 (25%) and arthritis in 4 (10%). The biological therapy rituximab was used in 36 (77%) and 11 (23%) anti-TNF (7 etanercept, 3 infliximab and 1 adalimumab). In 37 (82%) concomitant immunosuppressive therapy was added to biological therapies, immunoglobulins in 8 (18%) and PE in 1 (2%). Response could be assessed in 41 patients, including a complete response (CR) in 18 (44%), partial response (PR) in 14 (34%) and no response (NR) in 9 (22%). The response was greater in patients treated with rituximab (CR 52%, PR 42% and 7% NR) than in those treated with anti-TNF (CR 20%, PR 10% and 70% NR), $p < 0.0001$. We observed the following response in the main affected organs: muscle (RC: 50%, PR: 29%, NR: 21%), skin (CR: 58%, PR: 33%, NR: 8%) and lung (CR: 53%, PR: 13%, NR: 33%). Follow-up time was 24 months. During this time 11 (23%) relapsed and 5 (12%) developed any adverse event: 4 (8%) infection and 1 (2%) adverse event related to the infusion. Four (9%) patients died during follow-up, one due to disease progression, one to colonic neoplasia, one to biliar sepsis and one of unknown cause.

Conclusions: Despite not having approved indication, biological therapies could be effective and safe in the treatment of refractory inflammatory myopathies, with the response obtained with rituximab higher than with anti-TNF.

IF-80
TUBERCULIN SKIN TESTING IN UVEITIS PATIENTS

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Objectives: To evaluate the results of tuberculin skin test (TST) in patients with uveitis, to identify the clinical ocular signs of presumed intraocular tuberculosis (TB) in our cohort and to assess the outcome of specific treatment.

Material and method: Retrospective interventional case series of 121 new consecutive patients with uveitis presenting to the Uveitis Unit of our hospital from January 2008 to March 2012. All patients underwent a full systemic review, ocular examination, and standard baseline investigations which included: blood and urine analyses, VDRL test for syphilis, a chest X-ray and TST using the standard Mantoux method. The diagnosis of presumed intraocular TB was made when intraocular findings were consistent, the TST was positive and no other cause of uveitis was found. We considered suggestive clinical signs of TB associated uveitis the presence of granulomatous inflammation, broad-based posterior synechiae, retinal vasculitis with or without choroiditis, and serpiginous-like choroiditis. Data were analyzed with the statistic pack SPSS 15.0 for windows.

Results: 15 of the 121 patients (12.2%) had a positive TST result: 8 were anterior, 2 intermediate, 4 posterior uveitis and 1 panuveitis. Mean age was 44.27 years (22-68) and 66.6% women. The predominant ocular clinical findings were granulomatous inflammation (33.3%) synechiae (33.3%), retinal vasculitis-periphlebitis (33.3%), intraocular hypertension (26.6%) and choroiditis (13.3%), including one case with serpiginous-like choroiditis. Only one patient had evidence of extraocular disease (pulmonary). There was no significant association between positive TST and age, sex or location of uveitis. We found significant association between anterior or intermediate granulomatous uveitis and positive TST ($p = 0.03$). Six patients (40%) were considered to have presumed or definitive intraocular TB disease and received ATT, 4 of them together with a tapered course of oral corticosteroids. Other 2 patients received TB isoniazid chemoprophylactic therapy because of concomitant immunosuppression for the treatment of the underlying uveitis. The clinical outcome of these patients is analyzed.

Discussion: TB can have a variety of ocular manifestations, and consequently may mimic a number of ocular inflammatory diseases. As the absence of pulmonary disease does not rule out the diagnosis of ocular TB, a high index of suspicion should be maintained in uveitis patients. Recently proposed guidelines for the diagnosis of TB uveitis include exclusion of other known etiologies of uveitis, suggestive clinical history and signs, supportive investigations such as positive TST or interferon-gamma release testing, chest X-ray findings, response to empiric antituberculosis treatment (ATT) and, in some, evidence of M. tuberculosis or its DNA in ocular fluids/tissues. Important considerations with TST include anergy and false-positives from prior BCG vaccination. Interferon-gamma release assays (IGRA) is a specific test of detecting TB without the problem of cross-reaction in patients with prior BCG vaccination, but its chief limitations are limited availability and increased expense.

Both TST and IGRA may be negative or indeterminate in immunosuppressed states. Until tests with greater proven specificity and sensitivity are developed, tuberculin skin test should remain an integral part of systemic work-up for uveitis patients.

Conclusions: 1. About 12% of patients referred to our Uveitis Unit for systemic evaluation had positive tuberculin skintesting (mantoux), and 40% of them were considered to have presumed or definitive intraocular tuberculosis. 2. The presence of granulomatous inflammation is significantly associated with positive tuberculin skin testing. 3. Tuberculin skin testing remains as a useful diagnostic test for TB-uveitis in areas where immunological methods such us interferon-gamma release assays (IGRA) are not available.

IF-81
UVEITIS DIAGNOSIS AND TREATMENT IN A COMBINED MEDICAL-OPHTHALMOLOGICAL CLINIC

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Objectives: To report the experience of an interdisciplinary uveitis clinic developed by the Services of Ophthalmology and Internal Medicine of Cruces University Hospital (Barakaldo, Spain).

Material and method: Prospective observational cohort of 122 uveitis patients. All patients with uveitis (2008-2012) were evaluated by an ophthalmologist, who established the pattern of uveitis by location, clinical course and laterality. 122 patients in which a systemic disease was suspected and/or systemic treatment was required were evaluated by an internist, who arranged the diagnostic tests depending on uveitis pattern and extraocular symptoms and signs.

Results: Uveitis pattern and diagnosis: anterior uveitis (AU): 51 (41.8%) patients: 1) Acute recurrent and nonrecurrent unilateral AU: Behçet's disease (9), idiopathic no-HLA B27 (8), idiopathic HLA B27 (7), spondyloarthropathy (5), psoriasis (1), ulcerative colitis (1), sarcoidosis (1), herpes zoster (1), temporal arteritis (1). 2) Acute bilateral AU: Idiopathic no-HLA B27 (5), psoriasis (1). 3) Chronic AU: Idiopathic no-HLA B27 (6), Fuch's heterochromic ciclitis (2), ulcerative colitis (1), psoriasis (1), breast carcinoma (1). Intermediate uveitis (IU): 17 patients (13.9%): Idiopathic intermediate uveitis/pars planitis (12), probable sarcoidosis (3), probable tuberculosis (1), probable lymphoma (1). Posterior uveitis (PU): 23 patients (18.9%): 1) Unilateral chorioretinitis: Toxoplasmosis and HIV infection (1), progressive subretinal fibrosis syndrome (1), idiopathic neuroretinitis (1), idiopathic multifocal choroiditis (1), ampiginous choroiditis (1), tuberculous serpiginous-like choroiditis (1), vasoproliferative retinal tumor (1). 2) Bilateral chorioretinitis: Serpiginous choroiditis (3), tuberculous serpiginous-like choroiditis (1), leptospirosis (1), birdshot choroidopathy (1), punctate inner choroidopathy (1), unclassified idiopathic chorioretinitis (1). 3) Retinal vasculitis: Behçet's disease (3), idiopathic retinal vasculitis (3), probable tuberculosis (1), Eales disease (1). Panuveitis: 31 patients (25.4%): 1) Chorioretinitis panuveitis: Chronic Vogt-Koyanagi-Harada (VKH) disease (4), Lyme disease (1), sympathetic ophthalmia (1). 2) Vitritis panuveitis: Sarcoidosis (3), idiopathic (4). 3) Retinal vasculitis panuveitis: Behçet's disease (1), idiopathic (1). 4) Exudative retinal detachment panuveitis: VKH disease (5), syphilis (1). 5) Unclassified panuveitis: Idiopathic (6), tuberculosis (2), sarcoidosis (1), ankylosing spondylitis (1). Treatments: 12 patients were referred to other specialists for treatment and one discontinued follow-up. 109 patients were treated in the uveitis clinic; systemic corticosteroids were required in 65 (59.6%) and immunosuppressive therapy in 52 (47.7%), 18 (16.5%) of which were treated with more than one immunosuppressant. Drugs employed were methotrexate (29 patients, 26.6%), azathioprine (22, 20.2%), cyclosporine (17, 15.6%) and cyclophosphamide (3, 2.8%). Anti-TNF agents were used in 11 (10.1%) patients, in all cases after failure of at least one first line immunosuppressive drug.

Discussion: Uveitis is a major manifestation of several diseases and differential diagnosis is often complex. In our experience, identification of the pattern of uveitis is a very helpful tool to guide the initial diagnostic plan. Systemic disease (infectious, inflammatory-autoimmune or neoplastic) was diagnosed in 53 (43.4%) of the 122 patients evaluated, and 52 (47.7%) of the 109 patients treated required immunosuppressive therapy. These results reflect the two main roles of the internists in an interdisciplinary uveitis clinic: diagnosis of extraocular diseases and immunotherapy management.

Conclusions: Diagnosis, management and follow-up of patients with uveitis requires close cooperation between ophthalmologists and internists. Diagnosis of systemic diseases and immunosuppressive therapy management are the internist's major roles in an interdisciplinary uveitis clinic.

IF-82
POLYMYOSITIS AS A SYNDROME RATHER THAN A DISEASE

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Objectives: The objective of the present study is to explore if true pure PM exists.

Material and method: A longitudinal retrospective and prospective search for all muscle biopsy reported as "polymyositis pattern" was performed in a database of all muscle biopsies performed at our institution from January 1997 to May 2012. The medical charts of all the included patients were revised and data regarding clinical muscle involvement, previous medical conditions, initial and final diagnosis were also collected. In addition we evaluated if the patient's final diagnosis changed over time.

Results: Forty six muscle biopsies among 1,290 fulfilled the inclusion criteria. All the muscle biopsies were evaluated by the same expert pathologist in the field of muscle pathology. The diagnoses at initial evaluation based on clinical, laboratory, and histopathological criteria wereas follows: pure PM, 10 (21.7%); inclusion body myositis (IBM), 9 (19.5%); connective tissue diseases, 15 (32.6%); cancer related myositis, 4 (8.7%); drug-induced myositis, 4 (8.7%); chronic viral infection related myositis, 2 (4.3%); muscle dystrophy, 1 (2.1%); graft versus host disease, 1 (2.1%). At follow-up evaluation, only one patient remained with a diagnosis of pure polymyositis since four diagnoses changed to IBM, three to necrotizing autoimmune myositis and two to mixed connective tissue disease. The patients with paraneoplastic, viral, drug toxicity, muscle dystrophy and graft versus host disease remained with the same diagnosis. The more frequent underlying diseases of myositis in our study were systemic sclerosis and IBM.

Discussion: Polymyositis (PM) is considered as a rare disease (code ICD 10 M33.2). Although it was originally classified as a separate entity among inflammatory myopathies, nowadays is considered as an exclusion diagnosis and was compared even to mythological beasts. It is known that infectious agents, drugs, congenital dystrophies, endocrine and systemic diseases are associated with the histological findings of the PM pattern. Although a clinical and pathological pattern for PM is worldwide admitted, no

systematic study that effectively rules out other conditions and reduces the risk of misdiagnosis has been published. In order to clarify these controversies, we decided to perform a study focusing only in patients with a muscle histopathological pattern of PM. Out of the 46 biopsies analyzed ten (21.7%) where initially identified as pure PM. After a complete evaluation and follow-up only one remained with such diagnosis, while the other nine cases where reclassified as other diseases.

Conclusions: True polymyositis apparently doesn't exist as a disease but rather seems to be a syndrome. Therefore, patients with clinical and pathological picture resembling a PM should in fact be investigated for other causes of myositis.

IF-85
SUBCLINICAL ATHEROSCLEROSIS AND MINERAL METABOLISM IN SYSTEMIC LUPUS ERITEMATOUS (SLE) PATIENTS

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Objectives: Subclinical atherosclerosis is an emerging problem in Lupus patients. These patients have a higher prevalence of osteoporosis and, therefore, an accelerated bone mineral metabolism, than general population. Several authors highlight the possible relationship between the parameters of resorption/bone remodeling with inflammation and vascular calcification, which determines subclinical atherosclerosis. Different parameters have been used to find out this possible relationship. The aim of our study is to determine the correlation between bone mineral metabolism parameters (Ostase-BAP, osteocalcin, osteoprotegerin) and those related to subclinical atherosclerosis (brachial artery reactivity, carotid intima-media thickness, carotid plaques, Ankle Brachial Index (ABI)).

Material and method: We undertake a cross-sectional descriptive study in a group of SLE patients. We collected demographic and clinical data from medical records. Ostase®-BAP (Bone-specific Alkaline Phosphatase), osteoprotegerin, osteocalcin, PTH, calcium and phosphorus serum levels were determined. Cardiovascular involvement was assessed trough ankle-brachial index (ABI), carotid doppler and brachial artery reactivity. Statistical analysis was performed using SPSS 15.0.

Results: We studied 54 patients (47 women, 88.1%) with a median age of 45.5 years. Demographic and clinical characteristic are shown in Table 1. Ostase®-BAP, osteoprotegerin, osteocalcin, PTH, calcium and phosphorus serum levels are shown in Table 2. Ostase®-BAP serum levels significantly correlates with intima-media thickness ($r = 0.292$, $p < 0.47$) but not with other parameters of subclinical atherosclerosis or the ABI. No correlation was found between the levels of other bone mineral metabolism parameters and subclinical atherosclerosis or the ABI. Only 7 patients of the entire sample had carotid plaques.

Discussion: Ostase-BAP is a bone remodeling marker that has been useful as a biochemical marker of bone metabolism in diseases such as osteoporosis or Paget's disease. In both diseases this parameter increases. In turn, the intima-media thickness has been extensively studied in the last decade as a marker of atherosclerosis, in such a way that when larger, higher risk of atherosclerosis. According to our data, higher levels of Ostase-BAP (increases remodeling), are associated with an increased intima-media thickness (and cardiovascular risk), which is consistent with other studies published so far.

Conclusions: Our results suggest that high levels of BAP-Ostase could be a useful parameter in order to establish an intima-media thickness alteration. However, more studies with larger numbers of patients are needed. Prospective studies could be also useful in order to confirm this.

Table 1 (IF-85). Demographic and clinical characteristic

Variable	Mean ± SD/n (%)
Age (years)	45.85 ± 13.1
Sex (Female/Male)	47/7 (87/13)
Smoking (Yes/No)	16/38 (29.6/70.4)
HTA (Yes/No)	14/40 (25.9/74.1)

IF-93
EARLY VERSUS LATE ONSET SYSTEMIC SCLEROSIS: ANALYSIS OF 1037 PATIENTS FROM RESCLE REGISTRY

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Objectives: To determine if the age at disease onset may modulate the clinical characteristics and evolution of patients with SSc.

Material and method: The Spanish Network for Systemic Sclerosis recruited 1037 patients with a mean follow-up of 5.2 ± 6.8 years. Based on the mean ± 1SD of age at disease onset (45 ± 16 years), patients were classified in 3 groups; Group 1: age equal or below 30 years (early onset); Group 2: age between 31 and 58 years, and Group 3: age equal or older than 59 years (late onset). We compared the initial clinical presentation, capillaroscopy pattern, immunological features, cumulative clinical manifestations and death rates between the three groups.

Results: One hundred and ninety five patients belonged to group 1, 651 to group 2 and 191 to group 3. Female distribution was similar between the three groups (91%, 86%, and 88%). Interestingly, time from disease onset to diagnosis was significantly higher in patients with early onset (group 1) (12 ± 13, 5.8 ± 6.7, and 2.4 ± 3.6 years; $p < 0.001$). Raynaud's phenomenon was the most frequent initial manifestation without differences between the three groups (88%, 84%, and 78%; $p = 0.134$). Patients with early onset SSc had higher prevalence of myositis (11%, 7.2%, and 2.9%; $p = 0.009$), esophageal involvement (72%, 67%, and 56%; $p = 0.004$) and lower prevalence of centromeric antibodies (33%, 46%, and 47%; $p = 0.007$). In contrast, patients with late onset SSc was characterized by lower prevalence of digital ulcers (54%, 41%, and 34%; $p < 0.001$) but higher rates of heart conduction system alterations (8.7%, 13%, and 21%; $p = 0.004$), and pulmonary hypertension (12%, 19%, and 25%; $p = 0.048$). Mortality tended to be higher in late onset patients (9.7%, 15%, and 18%; $p = 0.053$) and the Kaplan-Meier survival curves were significantly different ($p < 0.0001$) for the three groups of patients.

Conclusions: Age at disease onset is associated with differences in clinical presentation and outcome in patients with SSc.

IF-138
DIAGNOSTIC FEATURES AND MORTALITY CAUSES IN A LARGE COHORT OF SPANISH PATIENTS WITH ANCA-ASSOCIATED VASCULITIDES (REVAS STUDY)

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Objectives: To describe the clinical features present at ANCA-associated vasculitides (AAV) diagnosis and to investigate the causes of mortality in a large cohort of patients from Spain.

Material and method: We analyzed the demographic, clinical and laboratory features of all patients diagnosed with AAV in 15 different Hospitals from Spain, between January 1995 and December 2011. The statistical analysis was performed using the SPSS vs 15.0.

Results: 276 patients were included: 118 with GPA, 107 with MPA and 51 with EGPA. ANCA were positive in 85.9% of cases: 33.8% C-ANCA and 51.8% P-ANCA. The mean age at diagnosis was 55.8 ± 17.4 years. The mean follow-up was 80.6 ± 74.33 months. The most frequent features at diagnosis were fever (51.8%), constitutional symptoms (43.8%), arthralgia (56.2%), hemoptisis (21%) and purpura (20.3%). Renal failure was present in 47.5% of patients, lung involvement in 45.5%, and pulmonary-renal syndrome in 14.5%. Sensory peripheral neuropathy was detected in 26.1% of cases and ENT in 35.1%. Renal failure, alveolar haemorrhage and pulmonary-renal syndrome were significantly most frequent in MPA ($p = 0.000$, $p = 0.016$ and $p = 0.032$, respectively), and ENT involvement in GPA ($p = 0.000$). Lung infiltrates and mononeuritis multiplex were more frequent in EGPA ($p = 0.002$). All patients were treated with oral corticoids (CS) and 48.2% also received intravenous CS pulses. CYC was given to 82.2% of patients (37.7% intravenously and 44.6% orally). Dialysis was required in 16.7% of cases and plasma exchange in 6.5%. During the follow-up 34.8% of patients suffered bacterial infections, 12.7% opportunistic infections, and 4.7% neoplasm. Bacterial infections were most frequent in patients with leukopenia ($p = 0.000$), CS pulses ($p = 0.030$), oral CYC ($p = 0.004$), and dialysis ($p = 0.005$). Opportunistic infections were also most frequent in patients with renal failure ($p = 0.008$), CS pulses ($p = 0.001$), and leukopenia ($p = 0.000$). Fifty-five (19.9%) patients died: 33 with MPA, 15 with GPA, and 3 with EGPA. Mortality was significantly related to renal failure ($p < 0.000$), nephrotic syndrome ($p = 0.024$), myocarditis ($p = 0.014$), urinary tract infections ($p = 0.017$), opportunistic infections ($p = 0.001$), neoplasm development ($p = 0.012$), MPA ($p = 0.005$), and age older than 65 years at diagnosis ($p = 0.001$).

Discussion: AAV are chronic and relapsing diseases characterized by inflammatory cell infiltration and necrosis of small blood vessel walls. Fever, arthralgia, constitutional syndrome, renal failure and lung involvement are the most frequent diagnostic features. Severe renal and cardiac involvement, infections, and neoplasm are the most frequent causes of death. Infections are more frequent in patients treated with oral CYC and high doses of CS. Immunosuppressant drugs less toxic than CYC, and biological therapies are increasingly used in order to reduce the conventional treatment toxicity and the mortality related to infections.

Conclusions: In spite of therapy, AAV are still related to a high mortality and morbidity. The illness severity and infections related to treatment, are the most frequent causes of death. New therapies should be investigated in order to reduce the treatment toxicity and the mortality related to infections.

Osteoporosis

O-1
INFLUENCES OF BLOOD PRESSURE LOWERING ON BONE TURNOVER AND OPG/RANKL/RANK SYSTEM IN NEWLY DIAGNOSED HYPERTENSIVE ADULTS

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Objectives: Blood pressure lowering has been reported display favorable effects on bone turnover in subjects with hypertension. Moreover, renin angiotensin aldosterone system blockage was shown to exert beneficial effect on parenchymal bone cells. The present pilot study was conducted to search for the effects of antihypertensive medication on circulating bone remodeling.

Material and method: Forty subjects with newly diagnosed and never treated hypertension who were free of any other metabolic/chronic disease or medication were included in the study ($n = 40$, mean age 54.9 ± 10.6 years). Patients were randomly divided into two groups and received monotherapy with amlodipine 5 mg or valsartan 80 mg, with a double dose after two weeks in uncontrolled hypertensive subjects. Blood bone turnover markers and osteoprotegerin (OPG)/RANKL/RANK system were measured before and after a 12-week treatment.

Results: Both treatment arms resulted in significant and equal levels of systolic and diastolic blood pressure lowering. Treatment of individuals either with amlodipin or valsartan did not result any change in serum osteocalcin or serum C-telopeptide of type I collagen (CTX) level (Table). However, amlodipin caused some reduction in CTX blood level compared to valsartan but the difference between the two was not significant (9.5% versus 1.0%, $p = 0.421$). Antihypertensive treatment reduced circulating soluble RANKL (sRANKL) level significantly ($p = 0.004$), however this was evident only in the amlodipin treated subjects ($p < 0.001$) (Table). Although blood OPG concentration did not show any difference after the treatment, sRANKL/OPG ratio decreased significantly by the end of 12th weeks ($p < 0.001$). The decrease in blood sRANKL level correlated negatively to circulating vitamin D concentration ($r = 0.420$, $p = 0.023$).

Discussion: To our knowledge, this is the first human study searching for the association of antihypertensive drug use and bone remodeling markers.

Conclusions: Antihypertensive treatment did not affect circulating bone turnover markers in the present study. Amlodipin resulted in some decrease in blood sRANKL level, suggesting that it may be a better option than valsartan to prevent of bone loss in hypertensive adults.

Table 1 (O-1). Effects of antihypertensive therapy on bone remodeling markers

	Amlodipin (n = 20) Before	Amlodipin (n = 20) After	Valsartan (n = 20) Before	Valsartan (n = 20) After	p1 (A vs V before)	p2 (A before vs after)	p3 (V before vs after)
Osteocalcin (ng/mL)	8.01 ± 3.03	8.46 ± 3.88	8.47 ± 4.28	9.35 ± 3.28	0.697	0.505	0.160
CTX (ng/mL)	18.2-617.3	16.7-560.9	23.4-544.2	25.6-598.8	0.340	0.263	0.881
OPG (pg/mL)	11.2-757.0	43.4-677.4	33.9-990.2	42.2-812.2	0.969	0.191	0.167
sRANKL (pmol/L)	97.9-2290.1	58.6-1113.4	60.4-331.2	103.3-320.2	0.127	< 0.001	0.502

O-3
OSTEOPOROTIC HIP FRACTURES IN A TERTIARY HOSPITAL IN CANTABRIA, SPAIN

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Objectives: To analyze the epidemiological features of hip fracture in an urban tertiary hospital in a region of Northern Spain.

Material and method: We have reviewed retrospectively all the clinical charts of patients, aged 50 years or more, admitted to our hospital from January 2010 to December 2010, with a diagnosis of hip fracture. Patients who had suffered a high-impact trauma or underlying pathological condition, such as bone cyst, cancer, Paget disease of bone, etc. were excluded. Data were obtained through the informatized database of the "Clinical Documentation and Admission Department". Codes used on our search were 820.0–820.9 according to the international classification of diseases, ninth edition (ICD-9-CM).

Results: We have included 289 patients (63 men –21.8%- and 226 women). Mean age was 83.1 (range, 54-99). Seventy-two percent of patients (n = 210) lived in urban areas. Fall was at home in 89.2% of the cases (n = 239). Seventeen subjects (6.3%) had sustained a previous hip fracture. Fourteen patients were on antiosteoporotic drugs (71.4% bisphosphonates) and 26 did receive oral calcium and/or vitamin D (61.5% calcium and vitamin D). Forty five per cent patients (n = 130) had a cervical fracture and 159 a trochanteric one. Fracture was on the left side in 52.9% of the cases (n = 153). Ninety-six percent of patient underwent surgery (n = 166 osteosynthesis and n = 108 prostheses). Postsurgical complications occurred in 74 patients (27%), the most frequent being respiratory infection (n = 9), cardiac failure (n = 5) and sixteen per cent presented prosthesis-related complications (n = 3 mobilization or fracture and n = 9 infection). Mortality was 20.4% (n = 57). Only three patients died during the first month after admission and the rest in the first year after discharge.

Discussion: In our cohort, hip fracture occurred mainly in patients 80 or older, living in urban areas who sustained a fall at home. The female-male ratio was 3.5. Trochanteric fractures, mainly perthrocanteric, were the more frequent type, in both sexes. Surgery remains the mainstay in the treatment of hip fracture according to published data with a high incidence of post-surgical complications increasing consequently the duration of hospital stay and health burden of osteoporotic fractures. Mortality was about 20% in our series, affecting main way older patients with greater comorbidity. Almost all fractured patients in our study, did not receive any antiosteoporotic drug (bisphosphonates, PTH) or supplementation with calcium, associated or not to vitamin D, prior to the event.

Conclusions: Despite having an easily accessible health service and appropriate diagnostic and therapeutic instruments, hip fracture is today a prevalent complication of osteoporosis with a non-negligible morbidity and mortality. Detection of patients at risk for this condition and the implementation of early and proper therapy when needed, could prevent, to a greater extent this type of fracture.

O-4
OSTEOPOROTIC HIP FRACTURES IN A SECONDARY HOSPITAL IN CANTABRIA, SPAIN

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Objectives: To analyze the epidemiological features of hip fracture in a secondary hospital in a region of Northern Spain.

Material and method: We have studied retrospectively all the clinical charts of patients aged 50 years or more, and admitted to our hospital from January 2010 to December 2010, because of hip fracture. Subjects with fractures due to a high-impact trauma, or to an underlying pathological condition, such as bone cyst, cancer, Paget disease of bone, etc., were excluded. Data were obtained through the informatized database of the "Clinical Documentation and Admission Department. Codes used on our search were 820.0–820.9 according to the international classification of diseases, ninth edition (ICD-9-CM).

Results: We have included 186 patients (50 men –27%- and 136 women). Mean age was 84.9 (range, 50-101). Seventy-two percent of patients lived in rural areas. Nineteen subjects (10%) had sustained a previous hip fracture. Only two patients were on antiosteoporotic drugs (calcitonin and teriparatide), and 8 did receive oral calcium and/or vitamin D. Fall was at home in 85% of the cases (n = 161). Eighty-six patients (46%) had a cervical fracture and 100 a trochanteric one. Fracture was on the right side in 57% of the cases. Ninety-eight percent of patient underwent surgery (osteosynthesis or prostheses). Postsurgical complications occurred in 31 patients (17%), the most frequent being respiratory infection, cardiac failure and prosthesis-related complications (movilization or infection). Mortality was 9.7% (n = 18). Seven died during the first month after fracture, and 11 in the first year.

Discussion: In our study, hip fracture occurred mainly in the elderly, in patients living in rural areas, and who sustained a fall at home. Trochanteric fractures were more frequent than cervical ones. Surgery remains the mainstay in the treatment of hip fracture, but post-surgical complications can occur. Mortality was about 10% in our series. Moreover, we have observed that, almost all fractured patients in our study, did not receive antiosteoporotic drugs.

Conclusions: Hip fracture is a prevalent complication of osteoporosis with a high morbidity and mortality. Detection of

patients at risk for this condition and a proper therapy when needed, could prevent, to a greater extent this type of fracture.

O-5
ASSESSMENT OF VERTEBRAL DEFORMITY IN WARFARIN-TREATED WOMEN

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Objectives: Osteoporosis is the most common bone disease and lot of drugs can cause bone loss. Warfarin inhibits the gamma-carboxylation of osteocalcin and may adversely affect skeletal health. Our aim was to determine if warfarin-treated women have more vertebral fractures than non-warfarin treated ones.

Material and method: Retrospective study in elderly women taking warfarin. We included 105 cases (women with atrial fibrillation taking warfarin) and 78 controls (women hospitalized in the Internal Medicine ward not taking anticoagulant treatment). Presence of vertebral deformity was valuated using Genant semi-quantitative method on lateral chest radiography. Data were analyzed using SPSS v15.0 (statistical significance: $p \leq 0.05$) and expressed as mean ± standard deviation, frequencies and percentages, and chi-square test for associations between variables.

Results: 105 warfarin-treated women were identified. Mean age was 80 ± 7 years and 60% were aged ≥ 80 years. Of the 105 patients, 82% arterial hypertension, 41% had heart failure, 34% stroke, 25% diabetes mellitus, 18% vascular disease, 16% kidney failure, 16% dementia and 18% previous fall. Warfarin users and non-users had similar age (79 ± 7, 51% aged ≥ 80 years) and similar prevalence of diabetes mellitus (25% vs 23%). Compared to non-users, warfarin-treated patients had more arterial hypertension (82% vs 52%, $p < 0.001$), more heart failure (41% vs 15.4%, $p < 0.001$), more stroke (34% vs 1.3%, $p < 0.001$) and more kidney failure (16% vs 5%, $p < 0.001$). Warfarin non users had no previous fallen, dementia neither vascular disease. Regarding vertebral deformity rate, 28.6% (n = 30) of warfarin taking patients had vertebral fracture on lateral chest radiography and 29.5% (n = 23) of non-warfarin-treated patients had vertebral deformity, without significant differences between both groups.

Discussion: Contrary to our expectations, we found no association between use of warfarin and vertebral deformity rate in this cohort of older women. Clinical relevance of these observations is uncertain due to contradictory data in scientific literature. Some studies have found that patients taking warfarin has lower bone density than control patients related with long-term exposure to this drug (Philip et al. QJM. 1995;88:635; Caraballo et al. Arch Intern Med. 1999;159:1750). However, other studies reflect that warfarin had no adverse effect on bone density, bone loss or fracture rate (Rosen et al. Am J Med. 1993;94:62; Jamal et al. Ann Intern Med. 1998;128:829) like in our investigation. Differences found in our series regarding chronic disease are logic and had no relevance to the main aim of our study.

Conclusions: Since warfarin inhibits gamma-carboxyglutamate formation, it is suspected that warfarin use accelerates bone loss and increases fracture risk. Despite our study had several limitations due to lack data in clinical records and retrospective design, our series provides data not before reported in our Health Care Area. More extensive studies are necessary to confirm these data.

O-6
OSTEOPOROSIS IN DOWN SYNDROME

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Objectives: Down syndrome (DS) is the most frequent chromosome abnormality in newborns and also the most frequent cause of intellectual disability. However, the life expectancy in this group has increased and many now survive more than 45-50 years, and therefore it is mandatory to pursue research not only in paediatric but also in adult age. It has been demonstrated that patients with DS have a lower bone mineral density (BMD), independent of their age and sex, compared with people not affected by this syndrome. We present a descriptive study of the bone mass of our DS patients, and different epidemiologic and clinical features that may affect it.

Material and method: A descriptive retrospective study of BMD, nutritional and hormonal parameters of 104 DS outpatients, obtained via standard blood analysis and dual energy X-ray absorptiometry (DXA). Osteoporosis was defined by T score equal or under -2.5. Osteopenia as T score between -1 and -2.5.

Results: There was an equal sex distribution with 50% males and 50% females, a mean age of 32.7 years (range 15-62), 61.3 kg of mean weight (39-95.5 kg) and 148.4 cm of mean height (range 128-177 cm). From our group of patients, of which 29.8% were obese, 30.7% overweight and 39.4% normal weight, the mean Body Mass Index (BMI) was 27.95 kg/m^2. 25% of patients were over 40 years, of which 14 (53.8%) were women, 8 (57%) of them post-menopausal. Vitamin D average levels were 25.44 ng/ml, a 35.6% insufficiency (< 30 ng/ml) and 36.5% deficiency (< 20 ng/ml) of vitamin D was observed. Secondary hyperparathyroidism was observed in 5.8% of patients. Betacrosslaps levels were increased in 32.5% of patients whereas 99% presented normal alkaline phosphatase. It was found that 10.6% of women had low oestrogen levels. Compared with BMD of same age and sex, 93% of patients had an appropriate femoral mineral density but only a 63% presented normal lumbar spine bone density. When compared to healthy 30 -year old patients (T score), DS patients presented 2.9% of femoral osteoporosis and 35% of femoral osteopenia, while if we refer to lumbar spine osteoporosis we can objectify a 48.1% of osteopenia, and 22.1% of osteoporosis. As expected, age and bone disease are associated and a statistically significant association was established between having lumbar spine and femoral bone affected ($p < 0.001$). Lumbar (p 0.023) and femoral (p 0.038) osteopenia and osteoporosis were also statistically significantly associated to low oestrogen levels. No statistically significant association was established in our study between Vitamin D levels, betacrosslaps, weight or gender with BMD measured with DXA. There was a tendency for males to have more bone disease, but no statistically significant association was found.

Discussion: As previous studies have suggested, our DS patients presented more frequently an altered BMD, which allows us to compare their osteoporosis/osteopenia prevalence to that of Spanish women between 60-69 years of age. However this was not associated with higher bone resorption or low Vitamin D levels. Our data reveals that males with DS have a higher tendency for osteoporosis, although no relationship with hypoandrogenism was established.

Conclusions: Down syndrome patients present altered DXA with higher frequency than population non affected by the syndrome, albeit with some specific characteristics. Therefore it would be necessary to perform further studies in search of biomechanic, genetic and hormonal factors that may interfere in their bone alterations and differentiate them from those of the general population.

O-8
FACTORS THAT INFLUENCE FRACTURE TYPE, MORTALITY AND FUNCTIONAL RECOVERY IN OLD PATIENTS WITH OSTEOPOROTIC HIP FRACTURE

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Objectives: To analyze patients (pats) admitted for hip fracture (Fx) secondary to a low impact trauma and to investigate determinants of morbimortality and presence of determining factors on the type of Fx.

Material and method: From March 1, 2009 to December 31, 2010, all pats admitted with osteoporotic hip Fx in a university hospital, were visited in a prospectively and formalized way. Sociodemographical, clinical and analytical data were collected. Data referred to the patient's status before the Fx, complications arising during admission and at discharge. Phone follow-up were performed after 3 months and after one year of hospital discharge. We analyzed which variables were associated with cognitive and functional recovery and mortality. We assumed that there would be functional recovery if one of these premises were met: positive opinion from the pat or family, no significant decline of the Barthel index (BI) (lower than 20 points) and maintenance of walking ability (self moving ability, a support, walker or wheelchair). We assumed there was cognitive recovery when the opinion of the pat or the family was positive and showed no deterioration in the Pfeiffer test (PT).

Results: 425 pats were included with a mean age 83 ± 8 years. Women (72%) were older than men (84 ± 8 versus 81 ± 8 years, $p < 0.01$). On admission, the body mass index (BMI) was 25.7 ± 4.8 Kg/m^2. The Charlson comorbidity index (CI) medium was 1.7 ± 2.0 and BI, 76 ± 29 points. Pats were categorized according to mistakes in the PT: The median ± SD was 1.82 ± 1.09. 15.9% of pats, 14.3% and 12.8% showed mild, moderate or severe deterioration, respectively. Dementia was present in 69 pats (17.64%). The mean number of currently taken drugs was 6 ± 5. Regarding laboratory parameters, mean haemoglobin was 11.8 ± 1.9 g/dL, serum creatinine, 98 ± 72 mmol/L (normal renal function in 65% of patients, estimated by the MDRD-creatinine clearance rate), albumin levels were 31.4 ± 4.3 g/L. With respect to bone metabolism, a calcidiol serum level of 29.2 ± 24.7 nM/L stands out. The majority of Fx was either pertrochanteric (45%) or subcapital (43%). The most frequent surgical procedure was placement of osteosynthesis material (59%). Subcapital Fx were associated with a lower previous status estimated by the BI (71 ± 33 vs 79 ± 24; $p < 0.01$) and PT (55% vs 45% of the pats with some degree of deterioration; $p < 0.05$). None of the other analyzed variables was related with the type of hip Fx. Seven% of the pats died during hospitalization, 9% before the 3 months and 9% during the first year. Statistically significant factors associated with higher mortality were: male gender, older age, lower BMI, worse CI, IB and PT, higher drugs use, hypovitaminosis D, worse renal function and lower concentrations of serum albumin and haemoglobin. The type of Fx or surgical intervention was not associated with mortality. In surviving pats, the frequency of functional recovery after 3 months and after one year was 63% and 61% respectively (p not significant). Cognitive recovery was 35% and 36% respectively (p not significant). Statistically significant variables that determined the absence of functional recovery were older age and lower calcidiol and serum albumin. A lower cognitive recovery was determined by older age, worse IB and worse PT.

Conclusions: Pats with hip Fx present a high mortality. On admission, predictors of morbidity and mortality were male gender, older age, lower BMI, worse CI, IB and PT, higher drugs use, hypovitaminosis D, worse renal function and lower concentrations of serum albumin and haemoglobin. In pats with hip Fx, a more evident deterioration in functional status and a poorer previous cognitive state determines a larger frequency of subcapital Fx.

O-9
THERAPIES WITH CALCIUM SUPPLEMENTS OR ANTIRESORTIVES IN OLD PATIENTS BEFORE AND AFTER OSTEOPOROTIC HIP FRACTURE

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Objectives: To investigate phospho-calcium metabolism in patients (pats) with hip fracture (Fx), with special emphasis on the serum concentration of calcidiol and response to supplements of calcium (Ca) and vitamin D (vitD). Another aim was to analyze the osteoporotic Fx prevention in these pats before and after the Fx.

Material and method: From March 1, 2009 to December 31, 2010, all pats admitted with osteoporotic hip Fx in an university hospital, were visited in a prospectively and formalized way. Sociodemographical, clinical and analytical data were collected. Data referred to the patient's status before the Fx, complications arising during admission and at hospital discharge. Analytical parameters of phospho-calcium metabolism were identified in peripheral blood. Pats were inquired about administration of Ca and/or vitD supplements. With regard to phospho-calcium metabolism, pats with a glomerular filtrate < 30 ml/min were excluded (n: 101). Deficiency of vitD was defined as the serum concentration of calcidiol < 25 nM/L and insufficiency as < 50 nM/L.

Results: We included 425 pats with a mean age 83 ± 8 years. Women (72%) were older than men (84 ± 8 versus 81 ± 8 years, $p < 0.01$). On admission, the Barthel index was 76 ± 29 points. Pats were categorized according to mistakes in the Pfeiffer's test: The median ± standard deviation was 1.82 ± 1.09. 15.9% of patients, 14.3% and 12.8% showed mild, moderate or severe deterioration, respectively. Dementia was present in 69 pats (17.64%). Regarding laboratory parameters, mean haemoglobin was 11.8 ± 1.9 g/dL, serum creatinine, 98 ± 72 mmol/L (normal renal function in 65% of pats, estimated by the MDRD-creatinine clearance rate), albumin levels were 31.4 ± 4,3 g/L and calcidiol serum level was 29.2 ± 24.7 nM/L. With regard to phospho-Ca metabolism, we included finally 324 pats (83 ± 8 years, 71% women). 58% of pats had vitD deficiency. The monthly distribution of the average concentrations of calcidiol showed a statistically significant increase in the summer months. Pats receiving Ca and vitD supplements had a higher mean serum concentration of calcidiol (47.6 ± 43.4 nM/L vs 25.2 ± 11.2 nM/L; $p < 0.001$), a lower vitD deficiency (24% vs 60%; $p < 0.001$) and insufficiency (71% vs 96%; $p < 0.001$) than those who did not receive them. 77 pats (18%) reported to have been diagnosed osteoporosis. 144 (39%) had had an osteoporotic Fx. 39 (11%) had undergone to a bone densitometry. 88 pats (23%) had been treated with Ca and vitD. 60 pats (19%) had received antiresorptive or anabolic treatments (AAT), 56 (14%) were taking some AAT at the time of admission (bisphosphonates [BisP]: 80%, strontium ranelate [SRa]: 14%; calcitonin: 6%). 30% of pats with prior Fx were receiving AAT as opposed to 14% of non-fractured ($p < 0.001$), 84% of pats with a previous hip Fx were not receiving AAT. AAT administration was not related to age or cognitive or functional previous status. At discharge, AAT was prescribed to 244 pats (63%): BisP: 88%, SRa: 11%; teriparatide: 1%. Three months after hospital discharge, 155 pats (48%) continued receiving AAT: BisP: 85%, SRa: 13%, raloxifene: 2%, teriparatide: 1%. One year after discharge, 139 (47%) were

receiving AAT: BisP: 85%, SRa: 9%, raloxifene: 3%, teriparatide: 3%, calcitonin: 1%.

Conclusions: In hospitalized patients with hip Fx, there is a high prevalence of hypovitaminosis D which did not achieve a satisfactory decrease in the subgroup that received vitD supplements. In a high Fx risk population, the frequency of treatment for the prevention of Fx is very low, regardless of age and of the previous cognitive and functional status. The treatment adherence decreases after hospital discharge but it is higher than what has been reported in previous studies.

O-14
LOW BONE MINERAL DENSITY IN A COHORT OF FEMALES WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: Assess the prevalence of low bone mineral density (BMD) in a cohort of patients with Systemic Lupus Erythematosus (SLE) and identify risk factors associated with it.

Material and method: Retrospective and descriptive analysis of 77 female patients with SLE (ACR criteria 1997), recorded in a database on the Internet (www.registroles.es). BMD was estimated in all patients by calcaneal peripheral densitometry (densitometer PIXI-Lunar®) and was considered pathological with a T-score < -0.6 (osteopenia T < -0.6, osteoporosis T < -1.6). Risk factors assessed were age, body mass index (BMI), smoking, sedentary lifestyle, whether patients had reached menopause and its age of onset, duration of SLE, the number of outbreaks, treatment with pulses of intravenous corticosteroids, disease activity index (SLEDAI) and SLICC damage index. The data were processed using SPSS 20.0.

Results: The mean age of patients was 39.2 ± 1.4 years, with an average disease duration of 120.4 ± 11.1 months and 4.6 ± 0.8 disease outbreaks. The mean SLEDAI and SLICC damage index at the time of registration were 4.9 ± 0.5 and 1.7 ± 0.2, respectively. The average BMI was 24.7 ± 0.5. 71.4% of patients were premenopausal, 39% smokers and 66.2% had a sedentary lifestyle. Only 10.4% had received pulses of intravenous steroids. BMD was pathological in 28 of the patients (36.4%), of which 19 had osteopenia (24.6%) and 9 osteoporosis (11.7%). Comparing both groups with normal and pathological bone densitometry, the only variables with statistical significance were menopause, disease duration and menopause.

Conclusions: 1. These patients were mostly young and of reproductive age. They had a long disease duration, moderateactivity and low chronicity. 2. There was a high prevalence of potentially modifiable risk factors (smoking and physical inactivity). Only one tenth of the patients had received intravenous steroids. 3. More than a third of the patients had low BMD. More than a tenth had osteoporosis. 4. Association between low BMD and age, menopause and duration of SLE was statistically significant.

O-15
RELATIONSHIP BETWEEN OSTEOPOROSIS, OBESITY AND THE INSULIN RESISTANCE INDEX IN A POPULATION OF PRE AND POSTMENOPAUSAL WOMEN

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Objectives: In our study we hope to find a possible association between obesity and insulin resistance with osteoporosis.

Material and method: We performed a prospective study of cases and controls in the Valladolid hospital, Rio Hortega, that included 286 pre and postmenopausal women between the ages of 38 and 85. We collected data including comorbidity, treatments, weight and height. We classified the degree of obesity according to the WHO. We measured the levels of vitamin D and plasma insulin, and calculated the insulin resistance index according to the HOMA test. Densitometry was performed at the lumbar spine and the hip, considering osteoporosis to be a bone mineral density lower than 2.5 standard deviations below the peak bone mass in young adults (T-score ≤ -2.5).

Results: We found a correlation between the insulin resistance index and obesity in the overall study population, the HOMA test increasing as the body mass index increased (HOMA average cases of grade II obesity 8.3 ± 9.4 versus 2.4 ± 2.6 in those of normal weight). Upon stratifying by osteoporosis, this relationship is lost and there exists a greater insulin resistance among patients of normal weight than among obese. In addition, we observed a lower percentage of osteoporosis among obese (obesity grade I 7.3%, overweight 38.7%) than in patients of normal weight (54%), with a statistically significant difference (p = 0.029). Excluding women under treatment for diabetes mellitus, we found no significant differences in HOMA or the percentage of osteoporosis.

Discussion: Osteoporosis and obesity maintain an inverse relationship, bone mineral density rising as body weight and body mass index also rise. This has been demonstrated in numerous studies as well as being in agreement with our own study, in which we have found a lower percentage of osteoporosis among patients with greater obesity. One possible explanation would be the mechanical effect that occurs in obesity, which could have a protective effect on the bone. Furthermore, the adipose tissue may have an influence due to the production of hormones and adipokines such as leptin, adiponectin, resistin and interleukins. In postmenopausal women, body fat mass and bone mineral density are positively associated, possibly due to the androgen's aromatization of the estrogens through the adipose tissue, accompanied by the hormone transporter of sex hormones. However, there is some controversy over whether the body fat has a protective effect for osteoporosis, as there are studies which have shown there exists an increased risk of osteoporosis with an increase in the proportion of body fat. Furthermore, there may be a participation of the hormones secreted at the pancreatic level, such as insulin, amylin and preptin. Hiperinsulinemia secondary to insulin resistance has been suggested as a possible explanation for the relationship between obesity and bone mineral density. The insulin would have a mitogenic effect on the osteoblasts, stimulating their function. However, in some studies this association has not been found, which could points towards the existence of other responsible hormonal factors. In our study we found a greater insulin resistance index among obese. But on the other hand, upon comparing cases of osteoporosis against those without osteoporosis, this relationship was lost. This could indicate that insulin resistance is not one of the mechanisms involved in the relationship between obesity and osteoporosis.

Conclusions: In our study we have not been able to demonstrate a relationship between insulin resistance and osteoporosis, which disagrees with the facts obtained in the latest publications. For this reason, we believe that it is necessary to carry out more studies analyzing this possible association.

O-16
PATIENTS ADMITTED WITH HIP FRACTURE HAVE A HIGHER INCIDENCE OF PREVIOUS FRACTURES THAT PATIENTS ADMITTED IN THE HOSPITAL BY OTHER DISEASES: A CASE-CONTROL STUDY OSTEOPOROSIS WORKING GROUP OF THE SPANISH SOCIETY OF INTERNAL MEDICINE (GTO-SEMI)

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Objectives: 1) To know data on the types of hip fracture. 2) To study the incidence of previous fractures, the incidence of family history of hip fracture, and to make a comparative analysis with a group of patients admitted for another condition.

Material and method: This is a prospective multicenter cooperative study case-control Osteoporosis Working Group of the Spanish Society of Internal Medicine (GTO-SEMI). in which cases are patients admitted for hip fracture and controls, patients of the same age, admitted to internal medicine without current hip fracture either upon. It is a descriptive analysis of data on hip fractures in the group of cases and a comparative analysis of family history, personal history of fracture and history of falls between cases and controls. Statistical analysis: chi-square test.

Results: We collected 890 patients, 443 cases and 447 controls, for 17 hospitals. General epidemiological data. In the case group, there were 332 women (74.9%) and 111 males (25.1%), with a ratio female/male 3/1. Age: 50-103 yrs, mean 82.3 ± 8.5 yrs, with differences between women (83.0 ± 8.2 yrs) and males (80.1 ± 8.9 yrs): $p < 0.05$. In the control group, there were 308 women (68.9%) and 139 males (31.1%), with a ratio female/male of 2.2/1. Age: 53-102 yrs, mean 80.4 ± 8.3 yrs, with differences between women (81.7 ± 7.8 yrs) and males (77.5 ± 8.8 yrs), $p < 0.05$.Data related to fractures. Types of hip fractures: cervical, 171 (38.6%); trochanteric, 198 (44.7%); subtrochanteric, 58 (13.1%); other, 12 (2.7%); unspecified, 4 (0.9%). Side of fracture: the right, 222 (50.1%); left, 218 (49.2%), unspecified, 3 (0.7%). 23 patients (5.2%) had other fractures coincide with hip fracture: wrist, 10 (2.25%); humerus, 7 (1.6%); another, 6 (1.4%). Family history of fractures: cases, 71 (16%); controls, 51 (11.4%); $p = 0.051$. Personal history of fractures were 123 patients (27.8%) in the case group (wrist fracture, 34; humerus fracture, 17; vertebral fracture, 15; other fractures 58) and 50 patients (11.2%) in the control group (wrist fracture, 16; humerus fracture, 10; vertebral fracture, 9; other fractures, 20), $p < 0.001$. They had falls in the last year 189 patients (42.7%) in the case group, median 2, and 124 (27.7%) patients in the control group, median 2, $p < 0.001$.

Conclusions: 1. About 30% of patients with hip fracture had already had a previous fracture. 2. Compared with controls, patients with hip fracture had a higher incidence of previous fractures and falls. 3. Also had a higher proportion of patients with a family history of hip fracture in the case group than in controls, close to statistical significance. 4. These data reinforce the need to identify patients most at risk and implement preventive measures to prevent hip fracture.

O-19
UTILITY OF MARKERS OF BONE RESORPTION AND FORMATION IN PATIENTS WITH CHRONIC CORTICOSTEROID TREATMENT

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Objectives: Bone markers are products of bone cells, or its action on bone, which can be measured in blood and urine and report on the state of bone remodeling. With other clinical data they can be used to evaluate patients with osteoporosis (OP), and to determine adherence to treatment and response. Its usefulness in the management of osteoporosis induced by glucocorticoids (GC) is still questioned. The aim of our study is to establish the usefulness of these markers as predictors of bone loss in patients with chronic steroid therapy.

Material and method: Prospective observational study in a cohort of patients diagnosed with any autoimmune diseases treated with GC, for more than 3 months. As formation markers, osteocalcin (BGP) and bone alkaline phosphatase (Ostase) were measured; and as resorption markers: Beta CrossLaps (CTX) and tartrate-resistant acid fofatasa (TRAP). Also measured osteoprotegerin (OPG), a protein involved coupling in the formation/resorption. We performed a statistical analysis to determinate the degree of correlation between the percentage of increase in bone mass and the various markers of bone resorption and formation.

Results: We analyzed a total of 141 patients (76.6% women), mean age: 56 ± 15 years; mean dose of prednisone: 5.19 ± 3.5 mg/day.

Conclusions: In our study no statistically significant relationship between percentage of bone loss and markers of bone formation or resorption were found. Thus, these markers do not show utility as predictors of bone loss in patients with chronic steroid therapy.

O-22
OSTEOMED: A PROJECT OF OSTEOPOROSIS WORKING GROUP OF THE SPANISH SOCIETY OF INTERNAL MEDICINE ANALYSIS OF THE FIRST 500 CASES

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Objectives: To develop a database of patients with osteoporosis of Internal Medicine consultation centers in Spain.

Material and method: The Osteoporosis Working Group of the Spanish Society of Internal Medicine (GTO-SEMI) has developed a medical history available on the Web. Inclusion criteria. There are eligible patients with osteoporosis, osteopenia and fragility fractures (irrespective of bone mass) that can be studied and followed according to clinical practice. We made an descriptive analysis of the first 500 cases.

Results: General epidemiological and clinical data. We collected 500 patients, 432 women (86.4%), aged 66.8 ± 11.2 yr and 111 men (13.6%), aged 63.9 ± 12.8 yr. 264 (52.8%) are naïve patients and 236 (47.2%) are patients in treatment.. Anthropometric data: height, 156.08 ± 8.02 cm; weight 65.1 ± 11.2 K, BMI, 28.7 ± 4.2 K/m^2. Here are the most relevant data about risk fracture factors, fractures and treatments: 142 (28.4) patients with a family history of fractures or osteoporosis. 47 (9.8%) patients were smokers and 48 (9.2%) are ex-smokers. The median daily intake of dairy calcium is 556 mg. Most common diseases associated with effects on bone metabolism are nephrolithiasis (55 pts, 11%), hypothyroidism (45 pts, 9%), and hypercalciuria (27 pts, 5.4%). 125 (25%) patients had a history of vertebral fracture and 75 patients (15%), history of nonvertebral fracture. The mean lumbar spine T score was -2.74. The mean T-score at the femoral neck was -2. The distribution bycategory of T-score was as follows: at the lumbar spine < -2.5, 278 patients; -1 to -2.5, 103 patients, > -1 patients, 18. At the femoral neck was < -2.5, 140 patients; -1 to -2.5, 235 patients; > -1 patients, 68. Treatment. Number of patients with each drug: Calcium 369, Vitamin D 401, Risedronate 112 Alendronate 91, Ibandronate 31, Zoledronic 11, Raloxifene 10, Strontium Ranelate 58, Teriparatide 34, PTH 1-84 27, Denosumab 4.

Conclusions: 1. At this moment, we have included 500 patients, half naive and half treated. 2. About 80% of the patients are women with a mean age of 65-70 years. 3. About 30% of patients have family history of major fractures or osteoporosis, while the sum of patients with vertebral and non-vertebral fracture is 40%. 4. 55% of patients had osteoporosis criteria in lumbar spine and femoral neck 28%. 5. Almost all patients treated, take calcium and vitamin D. Of the patients with active treatment, most are taking bisphosphonates.

Vascular risk

RV-5
COMMON BETA-CELL–ASSOCIATED GENETIC VARIANTS DO NOT INTERACT WITH HYPERTENSION OR HYPERTENSION TREATMENT IN THEIR ASSOCIATIONS WITH CHANGE OVER TIME IN FASTING GLUCOSE OR RISK OF NEW ONSET TYPE 2 DIABETES

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Objectives: It is not known whether common beta cell–associated single nucleotide polymorphisms (SNPs) interact with hypertension or hypertension treatments in their associations with change over time in fasting glucose (FG) or incident type 2 diabetes mellitus (T2DM).

Material and method: In the Framingham Offspring Study, we pooled data from 3,471 participants into 6 ~4-yr periods (15,852 person-exams; mean age 52 years, 54% women). We defined three hypertension exposures: 1) hypertension vs no-hypertension; 2) treated vs untreated hypertension; 3) five mutually exclusive anti-hypertension drug categories (beta-blockers, thiazides, renin-angiotensin system agents, combinations, others) vs untreated hypertension; and two genetic exposures reflecting total beta-cell genetic risk burden: 16 FG-SNP and 33 T2DM-SNP additive genetic scores. We tested ~4-year mean change in FG or odds of T2DM by hypertension category and per-risk allele change in genetic scores. We sought hypertension-by-genetic-score significant ($p < 0.05$) interaction in joint models including hypertension categories and the genetic risk scores.

Results: Versus no hypertension, hypertension conferred higher change in FG (2.6 vs 1.7 mg/dl; $p < 0.0001$) and T2DM risk (OR = 2.9; 95%CI 2.8-3.0; $p < 0.0001$). Versus untreated hypertension, treated hypertension conferred higher change in FG (3.4 vs 3.0 mg/dl; $p < 0.0001$) and T2DM risk (OR = 1.4; 95%CI 1.3-1.5; $p = 0.02$). Beta-blockers (OR = 1.6; 1.1-2.4), combination treatment (OR = 1.6; 1.1-2.5) and others (OR = 2.0; 1.4-2.9) increased T2DM risk (all $p < 0.02$). Genetic scores increased ~4-yr change in FG (0.6 mg/dl; $p = 8.9E-16$) and T2DM risk (~17%; $p = 2.1E-7$), per risk allele. In joint models including interaction terms, all hypertension category-by-genetic score interaction terms were $p > 0.05$. In joint models without interaction, hypertension ($p < 0.0001$) and FG-SNP or T2DM-SNP genetic scores independently increased change in FG or T2DM risk (both $p < 0.001$).

Discussion: We found that hypertension, hypertension treatment, and genetic scores derived from FG- and T2DM-associated SNPs conferred higher ~4-year change in FG and risk of incident T2DM in non-diabetic subjects in Framingham. We detected no interaction effect for any hypertension-treatment category-by-genetic score, although hypertension and genetic scores were independently associated with glycemic outcomes. The influence that hypertension or its treatment exerted on change in FG and T2DM risk was homogeneous irrespectively of the genetic susceptibility conferred by fasting glucose- or T2DM-associated common genetic variation. Reciprocally, the effect of fasting glucose- and T2DM-associated common genetic variation on change in FG and T2DM risk was not greater in the presence of hypertension or its treatments.

Conclusions: Hypertension, hypertension treatment and common FG- and T2DM-SNP genetic scores independently predicted change in FG and T2DM incidence, but did not modify each other's association with change in FG or T2DM risk in our population.

RV-7
EFFECTS OF MODERATE-TO-HIGH INTENSITY ENDURANCE EXERCISE AND DIFFERENT DIETARY MODELS ON CIRCULATING ENDOTHELIAL PROGENITOR CELLS IN METABOLIC SYNDROME PATIENTS

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Objectives: To determine the influence of different dietary models combined or not with a moderate-to-high intensity exercise program on endothelial progenitor cells (EPCs) levels; microvascular endothelial function; cardiovascular risk factors (CVRF) and changes on oxidative state in metabolic syndrome patients.

Material and method: 60 metabolic syndrome patients (50-70y) were randomized in 4 groups with 12 weeks of treatment: group A only with hipocaloric Mediterranean diet (MeD); group B with Mediterranean diet + exercise (MeDE), group C with low fat and high carbohydrates diet (LoF), and group D with low fat diet + exercise (LoFE). The exercise consisted of 3 weekly sessions of 30 minutes of aerobic exercise; 2 were supervising on a cycle-ergometer and arm-ergometer and one was unsupervised consisting of 30-minute walk. Circulating level of EPCs (CD34+KDR+), reactive

Table (RV-7). HRP in groups LoF, MeD, LoFE and MEDE

Variable LoF	LoF	LoFE	LoFE	MeD	MeD	MeDE	MeDE
Week S-0	S-12	S-0	S-12	S-0	S-12	S-0	S-12
PORHmax 150.1 ± 24.9	142.4 ± 22.4	145.8 ± 27.8	187.5 ± 18.5	149.6 ± 10.6	144.3 ± 24.9	144.5 ± 24.9	195.1 ± 24.9
iAUC 277.6 ± 29.0	178.9 ± 34.9*	239.9 ± 27.7	344.1 ± 56.2*	249.6 ± 33.1	220.1 ± 36.1	252.0 ± 50.1	253.3 ± 71.1

ischemic hiperaemia (RIH) measured by post-ischemia reactive hyperemia test (HRP), determining PORHmax and IAUc, and CVRF were determined at the beginning and at the end of each intervention. Effect of different interventions (independent variables) on EPCs level and HRP (dependent variables), was determined through an ANOVA with repeated measures (4 groups × 2 times).

Results: MeDE improved significantly more the EPCs levels and oxidative state after intervention than MeD, LoF and LoFE. LoFE significantly increased EPCs vs MeD and LoF. On the other hand, MeDE and LoFE improved RIH (PORHmax and IAUc) vs MeD and LoF, without difference between these treatments (table). LoFE was more effective than Mediterranean diet in reducing abdominal fat and others measured CVRF, with equal effectiveness in the loss of body weight. LPO was reduced and GPx was increased after intervention in MeDE.

Discussion: A reduced number of EPCs correlates with the CVRF score and to predict future cardiac events. In this sense, improving the oxidative status and measured CVRF has been associated with a better endothelial function.

Conclusions: A hypocaloric Mediterranean diet plus endurance exercise of moderate-to-high intensity increases EPCs levels and improves oxidative status more effectively than a low fat diet plus exercise; both models improves microvascular endothelial reactivity in patients with metabolic syndrome.

RV-10
CLINICAL VALIDITY OF FRAMINGHAM CARDIOVASCULAR RISK SCALE IN PATIENTS BEING TREATED IN A VASCULAR RISK CONSULTATION ACCORDING TO SUBCLINICAL ATHEROSCLEROSIS

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Objectives: To determine the clinical validity of the Framingham score in patients from Cáceres being treated in a vascular risk consultation by assessing subclinical atherosclerosis using carotid ultrasound High Resolution (CUHR).

Material and method: Prospective, observational study of 450 consecutive patients seen in a vascular risk consultation at the Hospital San Pedro de Alcántara in Caceres, from June 2009 to June 2011, which were stratified into new categories of Framingham according to findings based on the intima-media thickness (IMT) and plaque score (PS) by carotid ultrasound High Resolution.

Results: Of the 450 patients, 267 were men (59.33%) and 183 women (40.66%). The mean IMT of the entire sample was 0.7808 (by gender: M = 0.7983, W = 0.7554). The mean IMT and Plaque score was significantly higher in men over 65 years (0.9257, 7.76 ± 5.21) and with a history of hypertension (0.84 ± 0.13, 4.93 ± 5.00) DM (0.86 ± 0.13, 5.65 ± 3.01) and previous stroke (0.87 ± 0.13, 5.44 ± 4.01). Regarding the diagnostic value of the Framingham score to identify patients at high cardiovascular risk found a sensitivity (S) of 50.33% and a specificity (E) of 79.60%, positive predictive value (PPV) of 82.87% and negative predictive value (NPV) of 44.98%. In Man (S) was 58%, (E) of 76%, PPV of 86% and a NPV of 42%. For women, the (S) was 37%, (E) of 83%, PPV of 75% and a NPV of 48%. According to the Framingham score, 25% of patients (n = 114) were assigned to the category of low risk, 35% (n = 156) and 40% (n = 180) included in the intermediate and high risk respectively. According to the findings in the CUHR 15% (n = 66) were assigned to the category of low risk, 19% (n = 86) and 66% (n = 298) classified as intermediate and high risk respectively. Thus 47.4% of patients were stratified with respect to the CURH correctly, while 32.7% were reclassified to high risk category and only 6.6% were reclassified from the category of high risk to bottom.

Discussion: The results of our study indicate that the carotid mean IMT was significantly associated with age and sex. The mean carotid IMT highest among men over 65 years and this leads to an increase in direct proportion with age, being these results consistent with several studies which establish that age is the main factor that influences the IMT progression. These findings confirm other published that relate the IMT with cardiovascular risk factors (CVRF) because the carotid mean IMT in our patients was higher in those who had a history of hypertension, diabetes, and stroke, a figure expected since the increase in IMT is the result of effects of CVRF on the vascular wall. In our study we found that the sensitivity of the scale of Framingham to detect patients at high cardiovascular risk was 50% in the entire series, a percentage that drops to 37% in women, leaving much of the population considered at high CVR unidentified and therefore without intervention therapeutic measures. CURH utilization allows the clinician to re stratify the patient in a more proper CVR group, thereby improving the sensitivity of the test while maintaining their specificity. Our results show a clear tendency to decrease considerably the group of patients at intermediate risk from 35% (n = 156) according Framingham, to 19% (n = 86) according to CURH. Also increases by about 26% the number of patients considered at high risk in which no doubt would start aggressive treatment.

Conclusions: The carotid ultrasound High Resolution is a useful method for the proper classification of cardiovascular risk in those patients in whom the Framingham scale has a low sensitivity and NPV.

RV-48
KNOWLEDGE ON STROKE WARNING SYMPTOMS AND ACTION IN RESPONSE TO STROKE IN SPAIN. A NATIONWIDE POPULATION-BASED STUDY

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Objectives: Worldwide thrombolysis rates remain suboptimal. Ambulance transfer is associated with greater use of this time-dependent treatment. Information on public awareness of stroke symptoms is important for planning effective education programs to promote calling of emergency services for suspected stroke. However, there is a paucity of data on this subject in European countries. Our objectives were to explore the recognition of stroke symptoms, awareness of the need to activate the emergency medical services for acute stroke events, and the association between knowledge of warning symptoms and intent to call for an

ambulance among a sample representative of the adult population of Spain. This is the largest study on this subject to date in Europe.

Material and method: The data were taken from the Study on Nutrition and Cardiovascular Risk in Spain, a cross-sectional study conducted in a sample representative of the Spanish non-institutionalized population aged 18 years or older in 2008-2010. Study participants were selected by multistage clustered random sampling. The households within each section were selected by random telephone dialing using the landline telephone directory as the sampling frame. Subjects in the households were selected proportionally to the distribution of the population of Spain by sex and age. The study included a computer-assisted telephone interview on stroke symptom knowledge and the first action to perform in a stroke event, based on the American Heart Association and American Stroke Association recommendations, and two home visits to perform a physical examination and to obtain blood samples.

Results: Among 11,827 adults, 7,711 (65.2%; 95%CI, 64.1-66.3) identified four to six stroke warning symptoms, considered as adequate knowledge. A total of 1,348 (11.4%) were unable to classify any of the symptoms correctly. In the multivariate analysis higher education was significantly associated with better knowledge of symptoms, and age 65 years or older, fair/poor self-rated health, history of obesity and known diabetes were significantly associated with less knowledge of stroke symptoms. One in 5 individuals indicated they would do something other than calling for an ambulance if they thought someone was having a stroke. The number of specific stroke warning symptoms known was directly associated with the intent to call an ambulance in a stroke event (OR adjusted for sociodemographic and clinical variables, 1.06 per symptom, 95%CI 1.03-1.09; $p < 0.001$).

Conclusions: In this population-based study stroke symptom knowledge was suboptimal and only modestly associated with the intent to call for an ambulance. Educational interventions are needed to link stroke recognition more strongly to an immediate need to call for an ambulance in order to increase stroke patients' access to thrombolysis.

RV-61
CLINICAL EFFECTS OF THE PROSTACYCLIN ANALOGUE ILOPROST IN PATIENTS WITH IIB-STAGE PERIPHERAL ARTERIAL DISEASE. RESULTS FROM A RANDOMIZED STUDY BY THE SCIENTIFIC SOCIETY FADOI

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Objectives: Patients with peripheral arterial disease (PAD) at stage IIb, and pain-free walking distance (PFWD) less than 100 metres, have both impaired quality of life and severe clinical outcome. The prostacyclin analogue iloprost is indicated in patients with more advanced PAD (critical limb ischemia). The objective of this study was to evaluate the efficacy of iloprost, added to standard therapy, in patients with IIb stage and PFWD less than 100 metres, and non-eligible for surgical revascularization.

Material and method: Patients enrolled were randomized to receive standard medical therapy (Group A) or standard therapy plus iloprost (Group B), for 1 year. Standard therapy was chosen by the attending physician and tailored for the individual patient, and it may include lifestyle measures and pharmacologic treatments such as anti-aggregating agents, heparin, hemorheologic/vasodilators. Iloprost was administered for ten days every three months (continuous intravenous infusion of 0.5-2.0 ng/kg/min for 6 hours/day). Treadmill test to assess PFWD was performed every three months, before starting the ten-day iloprost cycle (Group B).

Results: A total of 101 patients (50 in Group A and 51 in Group B) were enrolled. At baseline, the two study groups were similar as for mean age (71.9 ± 7.5 vs 68.5 ± 11.2), concomitant diabetes (44% vs 41%), ankle-brachial index (right 0.59/left 0.63 vs 0.64/0.60), and standard therapy. Figure 1 shows the values of PFWD during the study period. By considering the last observation carried forward, PFWD was significantly higher in patients treated with iloprost (87.4 ± 65.5 vs 127.3 ± 70.3, $p < 0.01$). Six patients in the Group A (12%) vs no patients in the iloprost group had a worsening of PAD towards critical limb ischemia. Major cardiovascular events occurred in 30% and 5.8% of patients in Group A and Group B, respectively ($p < 0.001$). Five patients in Group A died, vs none in Group B. No serious unexpected adverse reactions occurred in patients receiving iloprost.

Discussion: Patients with PAD at stage IIb and non-eligible for surgery, even though treated according to best medical practice, have severe short-/medium-term outcome. In these patients there is therefore a stringent medical need, and an anticipated use of iloprost could be a very interesting treatment option. Up to our knowledge, this is the first prospective randomized study designed to evaluate the effects of iloprost in this setting.

Conclusions: In patients with PAD at stage IIb and non-eligible for surgery, iloprost in addition to standard therapy significantly increases exercise capacity. Of particular interest, the percentage of patients who died or experienced major cardiovascular events was significantly lower in patients receiving iloprost. Future, larger and longer-term studies should focus on the effects on this therapy on clinical outcome.

RV-110
THROMBOLYSIS IN STROKE VICTIMS: FRIEND OR FOE?

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Objectives: Cerebrovascular events are associated with high mortality and morbidity. A regular follow-up and monitoring after the acute event and the control of cardiovascular risk-factors tend to decrease the risk of recurrence. The objective of this study was the portrayal of ischemic stroke victims after the event and compare the functional recovery of patients whom underwent thrombolysis and patients with standard antiplatelet treatment.

Material and method: Retrospective descriptive study with outpatients observed in 2011 after hospitalization in a stroke unit. Demograhic data was analised and an measurement of functional recovery was performed using Barthel scale. Disability was assessed with Rankin scale, considering a Rankin scale of ≤ 2 as a non-disabled person. Evaluation of both scales was performed at the 3rd, 6th and 12th month after clinical discharge.

Results: A total of 382 patients with ischaemic stroke were observed as outpatiens during follow-up after hospitalization in a stroke unit (median age of 67 years; 55% male), 43 (11.3%) of whom underwent thrombolysis. The percentage of patients with no disability at the 3rd, 6th and 12th month with thrombolysis treatment was respectively 78.2%, 79% and 76.3%, compared 75.5%, 81.6% and 92.3% in patients with standard antiplatelet treatment. Median Barthel score in thrombolysis patients at the same

evaluations was 81.7; 77.1 and 82, while standard antiplatelet treated patients presented a median Barthel score of 79.8; 82.6 and 87.5.

Discussion: Patients with thrombolysis treatment presented initially a lower disability rate than the group with antiplatelet treatment, but seemed to stagnate with functional recovery. At the 6th and 12th month patients with standard antiplatelet treatment were less disabled than thrombolysis patients.

Conclusions: While thrombolysis treatment seems to limit the extend of functional disability at short terms, this study didn´t show benefits at medium terms.

RV-130
INCIDENCE AND PROGNOSTIC IMPLICATIONS OF ANEMIA IN PATIENTS ADMITTED WITH ACUTE CORONARY SYNDROME

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Objectives: Between hospitalized patients with acute coronary syndrome (ACS), anemia is an usual finding. The aim of our study was to analyze the incidence of anemia at admission and during hospitalization, related variables, and the influence of the admission hemoglobin level (Hb) and post-admission fall in Hb on short-term prognosis in these patients.

Material and method: We performed a retrospective cohort study that included 804 consecutive patients admitted with ACS diagnosis: 414 (51.5%) without ST segment elevation (-NSTE) and 390 (48.5%) with ST segment elevation (-STE). Anemia was defined as hemoglobin < 13 g/dl in men and < 12 g/dl in women. The fall in Hb was calculated as the difference between admission Hb and the lowest Hb recorded during hospitalization.

Results: At admission, anemia was present in 21.8% of patients. Among patients without anemia at admission, 25.8% developed anemia during hospitalization. The prevalence of anemia at admission, anemization during hospitalization and the fall of Hb over several baseline characteristics are shown in the table. Female gender, age, diabetes (DM), renal insufficiency (RI) at admission and antiaggregant therapy (AT) before admission were associated with a higher prevalence of anemia. Patients with anemia had a worse risk profile (GRACE score: 144.1 ± 42.7 vs 120.9 ± 33.7 points; p < 0.001). Anemia at admission was associated with a higher incidence of heart failure (HF) and a conservative therapeutic strategy (CTS), with lower rates of percutaneous coronary intervention (PCI), during hospitalization. Fall of Hb was associated with a higher in-hospital mortality (OR = 1.3; p = 0.03). Age (p = 0.01), presence of HF (p < 0.001) and fall of Hb (p = 0.05) were related with in-hospital mortality in multivariate analysis.

Conclusions: There is a high prevalence of anemia at admission in patients admitted with ACS. This prevalence is higher between some subgroup of patients such as women, elderly and patients with RI or DM. Anemia and fall of hemoglobin levels during hospitalization are associated with a worse prognosis and also with a more conservative therapeutic strategy. In view of this, our data indicate that both parameters should be incorporated in the prognostic stratification of patients with ACS.

RV-133
SITAGLIPTIN PRETREATMENT IN DIABETES PATIENTS PRESENTING WITH ACUTE CORONARY SYNDROME: RESULTS FROM THE ACUTE CORONARY SYNDROME ISRAELI SURVEY (ACSIS)

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Objectives: We studied the association between treatment with oral hypoglyemic medications and the clinical presentation of diabetes patients with acute coronary syndromes (ACS).

Material and method: Multivariate logistic regression analysis was used to evaluate the risk of in-hospital complications among 445 diabetic patients with acute coronary syndromes enrolled in the Acute Coronary Syndrome Israeli Survey (ACSIS) 2010. Patients were categorized into 3 groups according to medications at time of admission: 1) DPP 4 inhibitors (as monotherapy or in combination DPP4i), 2) Metformin (monotherapy or in combination, excluding DPP-4i) and 3) other oral hypoglycemics.

Results: Patients in the DPP4i group displayed similar baseline clinical characteristics to the other 2 groups, with the exception of a younger age and a lower frequency of prior CHD and CRF. Medical therapy with DPP4i was associated with a significantly lower rate of in-hospital complications (post MI angina, re-infarction, pulmonary edema, infections, acute renal failure and lower KILLIP score) and a shorter duration of in-hospital stay as compared with treatment with metformin or other oral antiglycemic drugs. Consistently, multivariate logistic regression modeling showed that treatment with DPP-4i was associated with a lower risk (OR = 0.13; p = 0.01) of in-hospital complications compared with other oral hypoglycaemic therapy.

Discussion: Our retrospective analysis showed a beneficial association between pre-treatment with DPP4i and cardiovascular outcomes among patients admitted with acute coronary syndromes. Alongside the history of CHF and age, chronic treatment with Sitagliptin, the only DPP4i given in our study population, was associated with improved KILLIP class on admission, reduced rate of in-hospital complications (most notably infections and acute renal failure) and reduced rate of 30-day major cardiovascular events.

Conclusions: We conclude that pre-treatment with DPP4i is associated with reduced tate of in hospital complications and 30-day MACE of patients presenting with acute coronary syndrome.

Table (RV-130). Prevalence of anemia at admission, anemization and fall of hemoglobin levels during hospitalization

	Anemia at admission	p	Anemia during hospitalization	p	Fall of Hb (g/dl)	p
Men/Women	19.2%/28.6%	0.005	23.0%/34.6%	0.008	1.16/1.16	NS
Age </> 75 years	16.0%/34.5%	< 0.001	22.7%/34.6%	0.006	1.13/1.22	NS
No DM/DM	19.1%/27.2%	0.01	23.9%/30.4%	NS	1.12/1.23	NS
RI at admission (No/Yes)	16.1%/38.9%	< 0.001	22.7%/39.6%	0.001	1.12/1.26	NS
HF (No/Yes)	19.1%/39.6%	< 0.001	23.1%/50.0%	< 0.001	1.10/1.52	NS
AT before admission (No/Yes)	18.9%/26.8%	0.01	28.0%/21.5%	NS	1.27/0.96	NS
CTS/PCI during hospitalizacion	29.2%/18.9%	0.002	24.8%/26.2%	NS	0.96/1.23	NS

RV-142
THE PHOENIX: HDL-CHOLESTEROL REBORNS FROM ITS OWN ASHES AS THE MOST DETERMINANT METABOLIC FACTOR OF CAROTID INTIMA MEDIA THICKNESS

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Objectives: 1. To evaluate the role of HDL-C and Apo-A1 in bilateral Carotid Intima-Media Thickness (CIMT) in patients with moderate-high cardiovascular risk under treatment. 2. To evaluate if haemodynamic, inflammatory and other metabolic factors impact on CIMT in this population.

Material and method: N = 171 patients with moderate-high cardiovascular risk, treated for LDL-C, hemoglobin A1c and blood pressure targets according to 2011 ESC/EAS guidelines. Age: 57.6 (15.1) years. n = 108 (63.2%) hypertensives; n = 111 (64.9%) with hyperglycemia; n = 88 (51.5%) with hypercholesterolemia; n = 32 (18.7%) smokers. Blood pressure by OMRON MI 10IT. Glucose, HDL-C, Triglycerides (TG): Hitachi. LDL-C calculated if TG < 400 mg/ml. ApoA-I, ApoB: Nephelometry. A1c: % (DCCT). high–sensitivity C-Reactive Protein (hs-CRP): Nephelometry. CIMT was assessed on the posterior wall of right and left common carotid arteries using a 5-12 MHz multi-frequency linear array ultrasonic transducer (Vivid S5, GE Healthcare). Statistical Analysis: Continuous variables as mean (standard deviation-SD). Paired t-test. Evaluation of agreement by Bland-Altman plot, with limits at mean ± 1.96*SD of the difference. Pearson's correlation. Multivariate linear regression models (B: non-standardized coefficient; Bs: standardized coefficient; R^2: model coefficient of determination), backwards method. SPSS, v15.0.

Results: 1- No significant differences were observed between paired right and left CIMT: 0.687 (0.158) vs 0.686 (0.156). Both CIMTs showed a positive correlation (r = 0.496, p < 0.001). The agreement was assessed by Bland-Altman-plot: only 6 subjects (3.5%) were out of limits of agreement for right-left difference [0.0016 ± 0.3089], with no association between difference and mean. 2- Both right and left CIMTs became thicker with age: right-CIMT: r = 0.560; p < 0.001; left-CIMT: r = 0.491; p < 0.001. 3- Assuming the higher CIMT value (left or right) as representative of patient´s risk, both HDL-C and ApoA-I were inversely correlated to CIMT after adjustment for sex and age. HDL-C: Bs = -0.158; p = 0.027; R2 = 0.376. ApoA-I: Bs = -0.146; p = 0.024; R2 = 0.372. 4- In our population, CIMT did not show a significant association with LDL-C, ApoB, apoB/ApoA-I ratio, TG, chronic hyperglycemia, A1c, office blood pressure, hypertensive status, hs-CRP or smoking.

Discussion: The increase of CIMT has been related to cardiovascular risk factors (CVRF) and proven Coronary Artery Disease. Although left CIMT is usually considered as the gold-standard, there are not enough studies to support this laterality. Low levels of HDL-C and ApoA-1 have shown their consistency as CVRF in Framingham, PROCAM and INTERHEART studies, as well as their contribution to the so-called "residual risk" of subjects under treatment with statins. However, the role of HDL-C has been over and over again questioned, even branded it a "fallen-angel" (Medscape, May-2012). Our results give a breath of fresh air in the high density lipoproteins scene, throwing cold water on the intentions of their critics.

Conclusions: 1. Right and left CIMT are in close agreement with each other. 2. After adjustment for sex and age, HDL-C and ApoA-I were the most determinant factors of CIMT in subjects treated for A1c and LDL-C targets. 3. Casting doubt upon the important role of HDL-C in atherothrombotic disease seems to be a fruitless job, only surpassed by the fact of questioning the aspirin.

RV-144
CAROTID ATHEROSCLEROSIS IN 147 PATIENTS WITH PRIMARY SJÖGREN SYNDROME: THE ROLE OF TRADITIONAL AND AUTOIMMUNE-RELATED FACTORS

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Objectives: We evaluate the prevalence and clinical significance of carotid plaques measured by ultrasonography in a large series of patients with primary Sjögren syndrome (SS), focusing on the possible association with clinical and immunological SS features, the therapies administered and the impact on cardiovascular disease.

Material and method: The study cohort included 147 patients with primary SS consecutively evaluated and followed in our department between 2005 and 2011. Carotid ultrasound was performed and the intima-media wall thickness and presence of plaque was investigated in all patients. Traditional vascular risk factors and autoimmune-disease and treatment related factors were also analysed.

Results: The cohort included 141 (96%) women and 6 (4%) men, with a mean age at diagnosis of primary SS of 55.38 ± 1.09 years and a mean disease evolution of 96.63 + 4.81 months. Eighty nine (61%) patients presented carotid plaques in the ultrasound study; in 53 (36%) patients, plaques were bilateral. Analysis of epidemiological and autoimmune features showed that patients with primary SS and carotid plaques showed a higher mean age at diagnosis of SS (58.97 vs 49.88 years, p < 0.001), a higher frequency of IgG anticardiolipin antibodies (11% vs 0%, p = 0.054) and a lower frequency of antibodies against Ro60 (36% vs 67%, p = 0.01) in comparison with patients without carotid atherosclerosis. No statistical association was found between carotid plaque and previous/current therapy with antimalarials, corticosteroids or immunosuppressive agents. With respect to traditional cardiovascular risk factors, patients with carotid plaques showed a higher frequency of hypertension (42% vs 24%, p = 0.034), hypercholesterolemia (49% vs 29%, p = 0.017) and diabetes mellitus (33% vs 19%, p = 0.051); the percentage of patients with at least one vascular risk factor was also higher in comparison with those without carotid plaques (86% vs 64%, p = 0.002). The frequency of cardiovascular events developed by patients with carotid plaques was higher (14% vs 7% in patients without plaques) although the difference was not statistically significant. The age-sex adjusted multivariate analysis showed that SS patients with carotid plaques had a higher mean age at SS diagnosis (p = 0.004) and a lower frequency of antiRo60 antibodies (p = 0.48).

Conclusions: Nearly two thirds of patients with primary SS had carotid plaques detected by ultrasound. Age and anti-Ro60 antibodies were independently associated with carotid atherosclerosis, while corticosteroid use was not associated with plaques. These results suggest that cardiovascular risk factors should be taken into account in the management of patients with primary SS and show the importance of recognizing and controlling both traditional and SS-related cardiovascular risk factors.

RV-153
AMBULATORY BLOOD PRESSURE (BP) MONITORING IN DIABETICS WITH POORLY-CONTROLLED HYPERTENSION AT THE CLINIC FREQUENCY AND FACTORS ASSOCIATED WITH NORMAL AMBULATORY 24-H BP MONITORING

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Objectives: The APD study (Automedición de la Presión A RTERIALen Diabéticos), currently ongoing, is a 2-year clinical trial designed to compare 2 follow-up strategies in type 2 diabetics with poorly controlled hypertension at the office: 1) a home blood pressure (hBP)-based follow-up, and 2) a clinic BP(cBP)-based follow-up. The main outcome variable is the percentage of subjects with normal 24 h ambulatory BP at the final follow-up visit. In this report we analyze the baseline BP results and characteristics of the first 168 randomized patients. Objective: to estimate the frequency of patients with normal 24-h mean ambulatory BP (< 130/80 mmHg) and its correlates in patients with poorly-controlled hypertension at the clinic

Material and method: Non-institutionalised type 2 diabetics attending either at 14 primary-care clinics or at a hospital setting were eligible. The main inclusion criteria was a cBP ≥ 140/90 mmHg (mean of 3 measurements). The main exclusion factor was renal insufficiency (serum creatinine equal or higher than 2 mg/dL) or proteinuria. Patients underwent a clinical interview, physical exam, cBP measurement, 24-h ambulatory BP monitoring, standard biochemical serum analysis and microalbuminuria in 3 early-morning samples

Results: One hundred and sixty-eight subjects (65% males, aged 65.4 ± 8.1 years) were randomized either to hBP or cBP-based follow-up. Mean duration of hypertension and diabetes were 9.1 ± 8.5 and 10.1 ± 7.4 years, respectively. Mean cBP systolic and diastolic were 151 ± 12 mmHg and 81 ± 12 mmHg, respectively. Around a quarter of the subjects (25.8%, 95%CI 18.1-33.5%) had 24-h ambulatory Bp < 130/80 mmHg. We did not find significant differences between this group of patients and those with higher ambulatory BP values with respect to demographic variables, educational status, duration of hypertension or diabetes, subclinical target organ disease, macrovascular disease, body mass index, physical exercise, smoking, or antidiabetic treatment. Patients with 24h Bp < 130/80 mmHg had lower HbA1c values than those with higher values (6.1 ± 1.4 vs 7.3 ± 1.1%, p < 0.001). Patients with systolic cBP > 160 mmHg had a significantly lower likelihood of 24h Bp < 130/80 mmHg that those with lower systolic cBP values (12% vs 34%, respectively; p = 0.03).

Discussion: Our data support previous reports that show that a substantial proportion of diabetic with poorly-controlled hypertension at the clinic have normal BP values when measured by ambulatory monitoring. Thus, this technique may help identify those patients with a normal BP out of the clinic who do not need to have their antihipertensive treatment intensified. We did not find any demographic or clinical characteristics associated with a normal ambulatory BP. Interestingly, we found a significant inverse association with HbA1c.

Conclusions: One quarter of adult diabetic patients with poorly-controlled arterial hypertension had normal 24 h mean ambulatory BP. Patients with higher cBP were more likely to show elevated 24h BP and worse glycaemic control than the remaining subjects.

RV-157
IMPACT OF DIABETES AFTER MYOCARDIAL INFARCTION WITH ST ELEVATION AS DIASTOLIC DYSFUNCTION

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Objectives: Diabetes are associated with diastolic dysfunction. In recent years, it has been increasingly apparent that LV diastolic dysfunction contributes to increased mortality rates in patients with acute coronary syndrome independent of systolic function. Different ventricular filling patterns are associated with different prognoses. Objectives: the aim is to investigate the prognostic value of diabetics patients (p) admitted with a myocardial infarction with ST elevation (STEMI) according to their diastolic function, classified into four types of LV filling patterns: Normal (1), impaired relaxation (2), "pseudonormalization" (3), and restrictive (4).

Material and method: Are realized a prospectively analysis 87 diabetic p with STEMI undergoing primary angioplasty. Analyzing the incidence of cardiovascular events defined as death, recurrent ischemia, revascularization and stroke.

Results: 21.8% were women, 25.3% were active smokers, 11.2% with previous history of Coronary Artery Disease (CAD), 69% had hypertension, 46% were dyslipemic and 13.8% nephropathy. The mean age was 70 ± 12.5 years. Based on the filling pattern: 11.5% showed pattern (1), 44.8% pattern (2), 32.2% pattern (3) and 11.5% pattern (4). Baseline characteristics were similar in all groups. There were no significant differences in treatment. Cardiogenic shock rate was higher with restrictive filled (0%, 5.6%, 3.6%, 12.5%, respectively, p = 0.0001). Restrictive pattern was associated with more total events (10%, 38.5%, 11.1%, 50% p = 0.007), higher admission rate of cardiac causes (0%, 7.7%, 3.6%, 37.5%, p = 0.024) and total mortality (0%, 5.1%, 0.1%, 25%, p = 0.0001). In survival analysis found that in the first 300 days 100% of patients with restrictive pattern had events, compared to 10% of patients with other types of patterns (log Rank: 43.966, p = 0.0001).

Conclusions: Diabetic patients with restrictive diastolic function have a poor outcome, with a high incidence of mortality and cardiovascular events.

RV-158
EFFECT OF DIFFERENT DEGREES OF GLUCOSE METABOLISM ALTERATIONS ON THE CD36 EXPRESSION IN MONOCYTES OF PATIENTS WITH ATHEROSCLEROSIS

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Objectives: Atherosclerosis is particularly severe among the diabetic population. In pre-diabetic stage there is an excess of disease that is not attributable to other cardiovascular risk factors. The CD36 is a monocytic scavenger receptor that captures primarily oxidized LDL. Aim: To determine the expression of CD36 levels, both mRNA and protein (glycated and not glycated) in the initial stages of diabetes.

Material and method: Experiments "in vitro" with monocytes from atherosclerotic patients (n = 22) were carried out. The monocytes were cultured, in different times, during 48h as maxim, in extreme hyperglycemia (HG) conditions and in normoglycaemia (NG). Subjects with fasting glucose ≥ 126 mg/dl were excluded. The

atherosclerotic patients were divided into into three subgroups: 5 subjects with NG, 7 subjects with pre-diabetes (preDM) and 10 subjects with diabetes (DM).Also, these assays were realized with healthy subjects (n = 8) as control subjects.

Results: In the assays with HG, a very early expression peak of mRNA (4h) and another lower one after (24h) were obtained, indicating that influence of hyperglycemia on CD36 expression is fluctuating. In the group with NG, there was no difference of expression compared with control group, after 48h of culture. The expression peak appeared at the end of the experiment. Non glycated protein showed peaks of expression in two groups but, it was earlier in higher glucose concentrations (HG: 16h/NG: 48h). Like in glycated protein levels, the glucose inhibited receptor expression but at different times (HG: 8h/NG: 48h). In the experiment with patients, CD36 mRNA expression was decreased in NG subjects respect to preDM subjects and from them respect to DM subjects. Non glycated protein levels were not altered in either group. Glycated protein progressively increased from the NG subjects respect to preDM subjects and from them respect to DM subjects (p = 0.03). The diabetes development should be result of an increment of CD36 glycated expression, due, maybe, to the increment in the receptor recycling.

Conclusions: Acute HG is an important modulator of the expression of CD36 in vitro, with an increment in the synthesis of mRNA and a decrement in the expression of the protein in monocyte surface. In patients with atherosclerosis the development of abnormal glucose metabolism causes a progressive increment in CD36 receptor expression, maybe, due a posttranslational stimulus that could, partly, explain the excess of atherosclerotic disease in patients with disglycemia.

RV-159
EFFECTS OF CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) ON PATIENTS WITH OBSTRUCTIVE SLEEP APNEA SYNDROME (OSAS) AND METABOLIC SYNDROME

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Objectives: The aim of the present study was to evaluate the long term effects of continuous positive airway pressure (CPAP) on metabolic and hemodynamic components of metabolic syndrome in patients with obstructive sleep apnea syndrome (OSAS) treated with CPAP.

Material and method: 158 patients recently diagnosed of OSAS without CPAP therapy, with apnea-hypopnea index (AHI) > 5 events/h and with CPAP treatment criteria were recruited for a longitudinal prospective study. 21 patients were excluded: 8 patients with a mild OSAS and 13 patients refused their inclusion on this study. 137 patients were included. 46 patients were non-compliant with the CPAP therapy and 91 patients fulfilled CPAP treatment for > 4h/night (CPAP compliance group). The patients were studied at 0 and 6 months after starting CPAP therapy. Blood pressure (BP) analysis with clinical BP and ambulatory blood pressure monitoring (office BP, diurnal BP, nocturnal BP); anthropometric variables (weight, body mass index (BMI) and waist circumference), and biochemical variables (glucose, HbA1c, insulin, HDL cholesterol, LDL cholesterol, triglycerides and fibrinogen) were studied. The results before and after CPAP therapy were compared using Student-t for continuous variables and chi-squared test for categorical ones. T-test was used to analyze inter and intra group differences.

Results: There were no statistically significant differences between groups in the basal analysis. During the follow up of non-compliant CPAP group, significant increases in blood pressure values were observed in office systolic BP (133 ± 15 vs 147 ± 21; p = 0.001) and office diastolic BP (80 ± 8 vs 85 ± 10; p = 0.020), systolic BP 24 hours (124 ± 14 vs 129 ± 12; p = 0.001), diurnal systolic BP (127 ± 11 vs 134 ± 13; p = 0.001), and diurnal diastolic BP (78 ± 8 vs 81 ± 7; p = 0.001) without significant changes in metabolic and anthropometric variables. In the compliant CPAP group, decreases were obtained in all BP parameters. Statistically significant differences were detected in office systolic BP (144 ± 16 vs 138 ± 14 mmHg; p = 0.037), office diastolic BP (87 ± 8 vs 83 ± 8; p = 0.003), systolic BP 24 hours (129 ± 13 vs 126 ± 11 mmHg; p = 0.049) and diurnal diastolic BP (81 ± 9 vs 78 ± 8 mmHg; p = 0.005). In biochemical variables, significant decreases in fibrinogen levels were detected and decrease in glucose, HbA1c, and insulin levels with borderline significance. Significant decrease was observed at 6 months for both groups in all BP measures (with the exception of diastolic BP 24 hours and nocturnal diastolic BP) and non significant decrease in glucose and total cholesterol levels.

Discussion: 6 months of CPAP therapy reduced the blood pressure levels in patients with OSA and concurrent metabolic syndrome. Patients who used CPAP for > 4h/night had reductions in glucose, HbA1c, and insulin. A poor metabolic control may be associated with fibrinogen levels and glucose metabolism. Further follow-up, will probably show the beneficial effects on metabolic syndrome variables and a decrease on cardiovascular risk.

Conclusions: The reduction of AHI after CPAP therapy was positively correlated with BP and probably produces favourable changes in lipid concentrations and glucose metabolism. CPAP therapy compliance is essential especially in patients with cardiovascular risk factors. A longer follow-up period is necessary to assess the total metabolic effects of CPAP therapy.

RV-169
NEW APPLICATIONS OF PPAR-GAMMA-ACTIVATION IN TREATMENT OF ARTERIAL HYPERTENSION WITH METABOLIC DISTURBANCES

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Objectives: The genetic basis of insulin resistance are the mutations of the nuclear intercellular hormone regulator (or the peroxisome proliferator-activated receptor-PPAR-gamma) which plays an important role in carbohydrate and lipid metabolism. Angiotensin receptor blocker (ARB) II telmisartan promotes PPAR-gamma, and, thus, may affect insulin resistance, lipid profile and target organ damage in arterial hypertension (AH). To estimate efficiency and tolerability of PPAR-gamma-activating ARB II telmisartan and standard ACE inhibitor enalapril in AH with metabolic disturbances of carbohydrate metabolism, lipid profile and renal dysfunction was the study objective.

Material and method: 80 patients with mild-to-moderate AH, mean 150/92 mmHg (primary or AH after chronic kidney disease), were randomized to telmisartan, 40-80 mg daily (n = 40) or enalapril, 10-20 mg daily (n = 40) for 8 weeks, according to a prospective, randomized, open-label, parallel-group design. Randomization was performed by a computer generated list of random numbers. At the end of 2-week washout period and after 8 weeks of active treatment, systolic and diastolic blood pressure (SBP and DBP), 24-h noninvasive mean BP monitoring was performed, fasting plasma glucose (FPG), HOMA-IR, HBA1c, lipid profile and renal function were evaluated.

Results: After 8 weeks' treatment according to the ABPM, telmisartan is more pronounced than enalapril reduced mean daily blood pressure in hypertensive patients (-17.5 mm vs -10.8 mm), including the last 8 h dosing (-18.2 mm vs 7.2 mm) - * p < 0.05. During the treatment, telmisartan reduces (p < 0.05) FGP rates by

7%, HOMO-IR by 21% and HbA1c by 8%, whereas enalapril had no effect on these parameters. Telmisartan, unlike enalapril, significantly improved the lipid profile: TCh (-17%), LDL cholesterol (-13%), p < 0.01, and triglycerides (-25%, p < 0.05). Proteinuria decreased by 35% in the telmisartan group (p < 0.01) and only 10% for enalapril, creatinine clearance and serum potassium levels have stabilized, and in the enalapril group noted further deterioration in these indicators. As can be seen with renal hypertension ARB telmisartan had a greater renoprotective effect than ACE inhibitor enalapril. There were no of clinically significant changes in laboratory parameters compared with baseline, including liver function tests. The frequency of side effects (dizziness, headache, cough) was lower in the telmisartan group (10% vs 35%, p < 0.01) in the absence of cough (0% vs 15%). Thus, the use of telmisartan compared with enalapril was characterized by a better tolerability and safety.

Discussion: As these studies alter our understanding of the AH treatment? A partial agonist of PPAR-gamma telmisartan, the only ARB that can positively influence the metabolic disturbances (visceral obesity, insulin resistance, particular, impaired glucose tolerance, dyslipidemia, proteinuria). Telmisartan, 80 mg/day, reduces proteinuria in patients with nephrogenic AH, can be used as a renoprotective agent in the treatment of chronic kidney disease. The use of telmisartan in patients with AH effectively in terms of not only the correction of blood pressure and organ protection, but also the impact on certain links in cardiometabolic continuum and the prevention of metabolic disturbances progression. The prospect of further research is to develop a new ARB, in addition to influencing blood pressure in insulin resistance and dyslipidemia, which will more effectively prevent the organ damage and cardiovascular complications in patients with AH, diabetes, and a combination of these diseases.

Conclusions: As well as providing superior 24-hour BP monitoring including the last 8 h of the dosing interval control, a highly selective angiotensin type-1 receptor blocker telmisartan unlike enalapril, improved insulin sensitivity and lipid profile in hypertensive patients with metabolic disturbances, which may be explained by its partial PPAR-gamma activity.

RV-184
IMPACT OF HDL-CHOLESTEROL AND HYPERGLYCEMIC STATUS ON MICROVASCULAR ENDOTHELIAL DYSFUNCTION

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Objectives: To assess the haemodynamic and metabolic factors implicated in microvascular endothelial dysfunction (ED).

Material and method: N = 117 patients: 61.1 (12.4) years. 59.8% males. 74.4% hypertensives. 70.1% with chronic hyperglycemia, 46 with type 2 Diabetes mellitus (T2DM). 17.1% Smokers. 49.6% with metabolic syndrome (2005 ATP-III criteria). Type 1 DM and LADA were previously excluded. Serum biochemistry by HITACHI autoanalyzer. Blood pressure by OMRON M10-IT, A1C (%): DCCT; C-reactive protein hsCRP (mg/L) and ApoA1 (mg/dl) by nephelometry.

Pulse amplitude and augmentation index measured with Endo-PAT2000 (Itamar Medical). Response to hyperemia according to Hamburg et al (2008): PAT ratio = ln[(Xh/Xh0)/(Xc/Xc0)], 90-120 seconds after deflation. Cut-off point for endothelial dysfunction: PAT ratio < 0.4, according to Rubinshtein et al (2010). Statistical analysis: Mean (standard deviation). Comparations by t-test or Mann-Whitney's test. Squared-Chi test. Odds ratio [95% confidence interval]. Multivariate linear regression, age and gender as covariates, standardized beta (s-B) and model R^2. p < 0.05. SPSS v15.0 (SPSS Inc).

Results: 1. The prevalence of ED (PAT-ratio < 0.4) was 59.0%. No differences were observed in age between ED and non-ED subjects: 61.7 (11.9) vs 59.9 (13.1). 2. ED was more frequent in males (68.6% vs 44.7%, p = 0.013), odds ratio 2.701 [1.257; 5.805]. 3. In age- and sex-adjusted models, PAT ratio was significantly related to: HDL-C: s-B = 0.205, p = 0.033, R^2 = 0.125 and apoA1: s-B = 0.233, p = 0.027, R2 = 0.140. 4. Among the different combinations assessed for hyperglycaemic status, T2DM+IGT showed the strongest association with ED: s-B = -0.211, p = 0.032, R2 = 0.125. 5. Abdominal obesity reached a borderline significance: s-B = -0.177, p = 0.062, R2 = 0.117. Moreover, patients with ED had a higher waist-to-hip ratio: 0.98(0.09) vs 0.91(0.09), p < 0.001. 6. In our study, neither hsCRP, augmentation index, office blood pressure, hypertensive status nor smoking showed a significant impact on microvascular function.

Discussion: Endothelial dysfunction is a key component of atherogenesis and contributes to the development of cardiovascular disease. Measurement of peripheral vasodilator response is an useful method for assessing microvascular function. According to Framingham Study, male sex, body mass index, ratio of total to HDL-C, T2DM, smoking, and lipid-lowering treatment were associated with lower pulse amplitude hyperemic response. T2DM + IGT showed the strongest association with ED, in agreement with the results of the Paris Prospective Study. With regard to T2DM, the FIELD Study showed that fenofibrates prevent the development of retinopathy, although the explanation remains an enigma. The role of HDL-C in microvascular function, as deduced from our results, could help to solve it.

Conclusions: 1. In contrast to macrovascular ED studies, age is not a determinant factor of microvascular ED.2. Our results confirm that microvascular ED is more prevalent in males.3. Regarding ED, T2DM and IGT go hand in hand.4. With the demonstrated implication of HDL-C in the microvascular function, we have taken a step in solving the riddle of the FIELD study.

RV-200
RELATIONSHIP BETWEEN ENDOTHELIAL AND CARDIAC DYSFUNCTION IN HYPERTENSIVE DIABETIC PATIENTS

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Objectives: Endothelial dysfunction is a key element in the pathogenesis of arterial hypertension and diabetes mellitus. Along with oxidative stress, it is highly responsible for target organ damage. On the other hand, cardiac involvement in hypertension and diabetes is very prevalent, even in patients without clinical manifestations of heart disease. Left ventricular diastolic dysfunction is frequently seen with possible progression to overt heart failure. The early diagnosis of cardiac involvement is essential in preventing cardiovascular morbidity and mortality in these patients. We hypothesized that endothelial dysfunction in hypertensive and diabetes mellitus patients may be correlated with left ventricular diastolic dysfunction, so that markers of endothelial dysfunction could predict subclinical cardiac involvement.

Material and method: Prospective study of 60 hypertensive patients, with or without type 2 diabetes mellitus, aged 58.55 ± 9.13 years, without evidence of coronary artery disease and without clinical signs of heart failure. Patients were assessed by complete case history, clinical examination, 12-lead ECG, ECG stress test, flow mediated vasodilation (FMD) and transthoracic echocardiography. Serum levels of total cholesterol, LDL-, HDL-cholesterol, triglycerides, creatinine, uric acid, glycated hemoglobin (HbA1c), C-reactive protein, von Willebrand factor and

NT-proBNP were analyzed. Left ventricular (LV) diastolic function was assessed using standard echocardiographic evaluation (two-dimensional, M-mode, color M-mode), spectral Doppler of transmitral flow and tissue Doppler imaging at the level of mitral annulus. All patients were in sinus rhythm and with normal left ventricular ejection fraction. Patients with comorbidities known to damage endothelial function were excluded.

Results: Impaired flow mediated vasodilation was found more frequently in patients with diabetes mellitus (5.87 ± 3.10% vs 9.72 ± 3.62%, p < 0.001), as well as high values of von Willebrand factor (167.62 ± 56.07% vs 137.01 ± 41.80%, p = 0.036). FMD was inversely correlated with plasma levels of von Willebrand factor (r = -0.458, p < 0.001) and with the duration of hypertensive disease (r = -0.531, p < 0.001). Statistically significant correlations have been found between parameters of left ventricular diastolic dysfunction and impairment of endothelial function. FMD values were correlated with A wave velocity (r = -0.624, p < 0.001), E/A ratio (r = 0.620, p < 0.001) and E' velocity calculated as the mean value of E' measured at lateral, septal, anterior and inferior mitral annulus (r = 0.492, p < 0.001). Diabetic patients had lower values of E/A ratio (0.88 ± 0.24 vs 1.08 ± 0.22, p = 0.002), longer EDT (223.33 ± 41.66 vs 194.67 ± 29.75 ms, p = 0.007), lower values of E' (0.08 ± 0.02 vs 0.10 ± 0.02 m/s, p = 0.001) and higher values of E/E' ratio (9.69 ± 2.25 vs 7.25 ± 1.53, p < 0.001).

Conclusions: Both endothelial dysfunction and left ventricular diastolic dysfunction are highly prevalent in patients with arterial hypertension and diabetes mellitus. FMD is a marker of endothelial dysfunction in both hypertensive and diabetes patients. We assume the bidirectional relationship between vascular dysfunction and cardiac diastolic dysfunction.

VTE

T-5
CLINICAL CHARACTERISTICS OF VTE PATIENTS WITH D-DIMER LEVELS DETERMINED AT THE END OF ANTICOAGULATION

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Objectives: To analyze the characteristics of patients with VTE to which d-dimer was determined at the end of anticoagulant treatment.

Material and method: Prospective registry (R.I.E.T.E.) of the clinical, epidemiological and procedure in over 2,500 patients with VTE to which d-dimer was determined at the end of treatment.

Results: An average of 33% of our patients had positive d-dimer at the end of treatment, depending on the technique of determination. Age, renal failure, COPD, underlying neoplasm, or the use of LMWH in the maintenance therapy showed a statistically significant relationship with a positive d-dimer after cessation of treatment (p < 0.001) and had low statistical power of patients with heart failure (p = 0.021) or proximal DVT (p = 0.016). Moreover estrogen therapy, distal DVT and the use of VKA as therapy were great statistical power with normal d-dimer at the end of treatment (p < 0.001) and pregnancy (p = 0.003), male gender (p = 0.005) and immobility greater than 3 days (p = 0.090) with a lower statistical power. The duration of anticoagulation was similar in both groups, about 9 months, and the time of determination of the d-dimer was later in the positive cases (p = 0.061). Moreover the recurrence rate was 9.4% in the group with positive d-dimer and 6.2% in the group with normal d-dimer (p = 0.004). The average Sensitivity and PPV of the different techniques used d-dimer determination were 56.2% and 6.9% respectively, being higher with the techniques such as Auto Dimer-d test, VIDAS d-dimer or IL test D-dimer. The mean Specificity was 67.3%. The NPV was high for all techniques (97.2%).

Discussion: The rate of positive d-dimer at the end of therapy in our registry was lower (33%) than the average found in the literature (45-48%). The rate of relapses with positive d-dimer is lower too (9.4%) than that reported to date (about 17%), both events possibly due to the heterogeneity of the determination techniques used in the registry and highest average duration of anticoagulant therapy (about 9 months). The clinical and epidemiological factors associated with higher percentage of positive d-dimer were similar to those in the literature. The sensitivity of the techniques of determination and PPV were low, except for some technical such us VIDAS, Autodimer test or IL test. The specificity was moderate while the NPV of all of them was high.

Conclusions: The d-dimer levels at end of treatment are influenced by different characteristics of patients with VTE, including age, risk factors for VTE, comorbidity, clinical presentation and treatment and probably the time of determination. These factors should be considered when interpreting the results. The d-dimer levels at the end of anticoagulant therapy influence the rate of recurrent VTE, but possibly not the only factor involved. Quantitative techniques for determining the d-dimer have a high negative predictive value for recurrence, but have low sensitivity and PPV in general, except some of them like VIDAS, Autodimer test, and IL test.

T-6
PREVALENCE AND RISK OF VENOUS THROMBOEMBOLISM (VTE) IN ACUTELY ILL HOSPITALIZED MEDICAL PATIENTS (MEDITROM STUDY)

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Objectives: The aim of the ongoing MEDITROM study is to analyze the prevalence of VTE, associated risk factors and prophylaxis use in consecutive patients admitted to hospital for acute medical illnesses. This interim analysis reports on the population characteristics and main outcomes of patients included until May-2012.

Material and method: Multicentre retrospective study. Discharge lists were reviewed in participating centres to select the first consecutive 20 patients, aged ≥ 40 years and admitted ≥ 4 days to a medical unit. Exclusion criteria were: admission for diagnostic procedures, VTE or surgical illness, or management provided by the local investigator.

Results: Discharge reports from 1.646 medical patients (48 centres) were evaluated; 690 patients did not meet the inclusion

criteria or were excluded; Data from 957 (58.1%) patients were analyzed. The median age was 78 years (range, 40-101 years) and 49% were females. The median hospital stay was 8 days (range, 4-59 days). Admission diagnoses were cardiovascular diseases 25.5%, respiratory diseases 31.5%, neurologic diseases 14.7%, infections 16.8%, gastrointestinal diseases 12.2%, neoplasia 6.37%, other 39.8% (35% of the patients had 2 o more admission diagnosis). Complete immobilization (patient confined to bed or chair) affected to 41.3% of the patients, and decreased mobility (rest on bed or chair more than 50% of the time during the day and bathroom privileges) to 53.7%. During hospitalization, 6.62% of the patients died, 2.95% developed symptomatic VTE and 6.61% bleeding episodes. Most (76%) of symptomatic VTE episodes occurred in patients receiving appropriate prophylaxis. Overall, 59% of the patients were at risk of VTE according to the Pretemed Guide (score ≥ 4), 62.1% of the patients received VTE prophylaxis (pharmacologic, 98.3%; mechanical, 1.5%) and 64.7% had at least one risk factor for bleeding. The proportion of patients at VTE risk (Pretemed score ≥ 4) and no risk factors for bleeding that did not receive prophylaxis was 24.3%.

Conclusions: The population characteristics and main outcomes portray real-life medical practice. Nearly 24% of hospitalized acute medical patients at risk of VTE and with low risk for bleeding didn't receive the recommended prophylaxis.

T-20
VENOUS TROMBOEMBOLIC DISEASE RELATED WITH HORMONAL CONTRACEPTIVES IN WOMEN WITH THROMBOPHILIA. FINDINGS FROM THE RIETE REGISTRY

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Objectives: The use of hormonal contraception increases the risk of venous thromboembolism. This risk is greater among women with thrombogenic mutations. In this study we investigate the possible influence of genetic thrombophilia in the characteristic clinics, the additional risk factors associated and the outcome during the first 3 months of venous thromboembolism related with hormonal contraceptives.

Material and method: RIETE is an ongoing registry of consecutive patients with objectively confirmed, symptomatic acute VTE. The clinical manifestations, the presence of risk factor and outcome were investigate in all enrolled women using hormonal contraceptive with Factor V Leiden, prothrombin G20210A mutation, strong thrombophilia (antithrombina III, protein C and S deficiency) and no thrombophilia marker.

Results: As of November 2011, 38,668 patients had been enrolled, of whom 822 (2%) were women using hormonal contraceptive. Three hundred sixty-three were studied for genetic thrombophilia test. One hundred thirty-six were positive for thrombophilia and were compared with the negative thrombophilia women (N = 227). The prevalence of FV Leiden, FIIG20010A and strong thrombophilia was 45.6%, 34.6% and 19.8%, respectively. The thrombophilia positive women were not younger than negative thrombophilia women. There was no difference in additional risk factor as immobility, postoperative period, varicose veins, prior prolonged travel, or prior venous thromboembolism between thrombophilia positive and negative women. The duration of hormonal therapy before the presentation of venous thrombosis was similar in the four groups. No differences in the clinical manifestations, as such deep venous thrombosis (DVT) or pulmonary embolism (PE), was found between the groups. During the 3-month study period, one woman with FII20210 mutation died (fatal PE) and three thrombophilia negative women had a VTE recurrence (2 DVT and 1 PE). No hemorrhagic events were observed in any of the groups.

Discussion: Previously it has been described that carriers of prothrombin G20210A have an increase risk of developing isolated PE. Our data obtained in thrombophilia- positive woman users of hormonal contraceptive do not support this difference in clinical presentation of venous thromboembolism.

Conclusions: The thrombogenic mutations have no influence in the characteristic clinics, the risk factors associated or on the outcome of venous thromboembolism related with hormonal contraceptives.

T-21
RISK SCALES AND RISK ASSESSMENT CRITERIA TO PREVENT VENOUS THROMBOEMBOLISM IN HOSPITALIZED MEDICAL PATIENTS

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Objectives: To evaluate the concordance of 3 methods of venous thromboembolic risk assessment (Pretemed and Padua scales, and clinical criteria of the Medenox study) in medical patients admitted to hospital.

Material and method: Observational study of patients admitted to Internal Medicine service. The first 5 consecutive patients who did not need anticoagulant therapy were collected daily and the Pretemed and Padua scales, and inclusion criteria of Medenox study was considered. The following hospitals from the Region de Murcia participated in the study: Hospital Santa Lucía (Cartagena) and Hospitals Morales Meseguer and Virgen de la Arrixaca (Murcia).

Results: Three hundred and thirty-four patients were valued with Pretemed risk scale and inclusion criteria of Medenox study. Overall agreement was 61% (95%CI: 56%-66%) although kappa index value was 0.23 (0.12-0.33). Global agreement between Pretemed and Padua risk scales was 54% (49%-59%) with a kappa index of 0.12 (0.04-0.19). Overall agreement between Padua scales and Medenox criteria was 53% (48%-59%) with a kappa index of 0.08 (0-0.16).

Discussion: Although each of these risk scales and clinical criteria for pharmacologic thromboprophylaxis of hospitalized medical patients have been validated and have been found useful to indicate thromboprophylaxis, the correlation between them in order to classificate high-risk patients as venous thromboembolism, and thus making pharmacological thromboprophylaxis, is low.

Conclusions: Concordance between the classification of patients with Pretemed and Padua risk scales and Medenox study criteria in order to identify medical patient in high-risk of venous thromboembolism is no more than of low-grade. Therefore, results of one risk scale should not be extrapolated to another. Only prospective studies comparing the 3 "risk scales" of venous thromboembolic events in medical inpatients may indicate the most useful classification criteria.

Table 1 (T-21)

p < 0.001	Medenox "high risk"	Medenox "No risk"
Pretemed "High risk"	61 (36%)	96 (59%)
Pretemed "low risk"	109 (64%)	68 (42%)

Table 2 (T-21)

p = 0.057	Pretemed "high risk"	Pretemed "low risk"
Padua "high risk"	16 (29%)	141 (51%)
Padua "low risk"	40 (71%)	137 (49%)

Table 3 (T-21)

p = 0.002	Medenox "high risk"	Medenox "low risk"
Padua "high risk"	21 (38%)	143 (51%)
Padua "low risk"	35 (62%)	135 (49%)

T-30
ECONOMIC BURDEN OF VENOUS THROMBOEMBOLISM AND ANTITHROMBOTIC PROPHYLAXIS IN MEDICAL INPATIENTS. A REAL-WORLD ANALYSIS BY THE SCIENTIFIC SOCIETY FADOI

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Objectives: Venous thromboembolism (VTE) is a significant cause of morbidity and mortality in medical patients. In addition, the economic burden of this disease is plausibly relevant as well, due to management of acute episodes and to the costs of long-term complications. However, few real-world data are available on this topic, since information mainly comes from post-hoc analyses of randomized clinical trials. Aim of our study was to assess the in-hospital costs of VTE management and antithrombotic prophylaxis in patients hospitalized in Internal Medicine (IM) departments.

Material and method: To assess the costs of VTE and of prophylaxis, each investigator collected data from five hospitalized consecutive patients diagnosed with VTE (VTE group). Within the same time frame, the medical reports of five patients who received prophylaxis and who did not develop VTE, were reviewed by each investigator (NO-VTE group). Patients in the NO-VTE group were those hospitalized immediately before the corresponding VTE patients (casual selection). The economic analysis was undertaken by applying a process analysis, the initial phase of the more comprehensive Activity Based Costing technique. Accordingly to this approach, only information closely linked to VTE or its prevention was registered.

Results: The in-hospital paths of 160 patients with VTE and 160 patients receiving prophylaxis and without VTE were evaluated, from 26 IM units in Italy. The total median costs for VTE management were around four-times higher than those for prophylaxis (€ 1,348.68 vs € 373,03). This difference was particularly sustained in the phase of hospital stay, and partially by the time of admission to the hospital. Similar results were obtained by considering the costs for VTE management in the subgroup of patients without signs of VTE at hospital admission. Human resources were the most important cost-driver (55.5% and 65.7% in the VTE and NO-VTE groups), followed by instrumental (24.6% in VTE and 15.5% in NO-VTE) and haematologic tests (12.6% in VTE patients and 13.3% in controls). In the NO-VTE group the direct costs for prophylaxis accounted for 4.5% of total.

Discussion: Available analyses on the costs of VTE management and/or antithrombotic prophylaxis rely on data from large administrative or hospital databases or from randomized clinical trials. In the former, there is a difficulty in isolating health costs related to VTE, whereas in the latter, strict inclusion criteria, standardized prophylaxis and diagnostic work-up may significantly affect economic results. In this perspective, the experimental design (with a medium-size data collection) and the 'real-world' approach are strengths of our study, making the results reliable and of value.

Conclusions: The real-world data of this study confirm the economic burden of in-hospital treatment of VTE, and the relatively low costs of thromboprophylaxis. An extended follow-up would have plausibly added consistency to these results. A greater adherence to evidence-based protocols for VTE prevention could probably reduce the current financial burden of VTE on healthcare systems.

T-36
INITIAL THERAPY FOR ACUTE VENOUS THROMBOEMBOLISM WITH RENAL INSUFFICIENCY: LOW MOLECULAR WEIGHT HEPARIN (LMWH) VS UNFRACTIONATED HEPARIN (UFH)

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Objectives: 1. To study if there are major differences between LMWH or UFH for initial therapy of VTE in patients with or without renal insufficiency. 2. To compare the incidence of fatal PE, fatal bleeding and all-cause mortality in patients treated with LMWH vs UFH.

Material and method: We studied 38,531 patients with VTE included in the RIETE Registry and we evaluated the outcomes at 15 days. We used propensity score-matching to compare patients treated with UFH vs those with LMWH, in groups stratified by creatinine clearance (CrCl): > 60 ml/min, 30-60 ml/min or < 30 ml/min.

Results: 38,531 patients with acute VTE were included in RIETE. The inclusion criteria were symptomatic acute deep venous thrombosis (DVT) or pulmonary embolism (PE) confirmed by objective tests. The patients were classified in three groups according to their CrCl: CrCl > 60 ml/min (82%), CrCl 30-60 ml/min (12%) and CrCl < 30 ml/min (5.8%). In all, 90% received initial treatment with LMWH, 5.6% with UFH, 1.3% with fondaparinux and 1.2% with thrombolytics. The majority of

patients in all subgroups were initially treated with LMWH (90%) and mean daily doses of LMWH slightly decreased with worsening of renal function. The patients treated initially with UFH more likely had chronic heart failure, recent bleeding or anemia, were younger and weigher more compared wiht those treated with LMHW in all 3 subgroups. We used propensity score-matched groups of patients with Cr Cl > 60 ml/min (1,598 matched pairs), 30-60 ml/min (277 matched pairs) and < 30 ml/min (210 matched pairs). In the three groups of patients was observed and increased incidence of fatal PE when we compared UFH vs LMWH (2.8% vs 1.2% p 0.001; 3.2% vs 2.5% p NS and 5.7% vs 2.4% p 0.023) respectively. No differences in the incidence of fatal bleeding were found in all groups (0.3% vs 0.3%; 0.7% vs 0.7% and 0.5% vs 0.0% respectively). Neither was observed differences in major bleeding or recurrent PE in the three groups. Multivariate analysis confirmed that patients treated with UFH were at an increased risk for fatal PE (OR 2.3; 95%CI: 1.5-3.6) and all mortality (OR 1.8; 95%CI: 1.3-2.4).

Discussion: The findings in this study show that majority of patients with severe renal failure in RIETE was treated initially with LMWH. This study found that the risk of fatal PE was two times higher in VTE patients initially treated with UFH than in those receiving LMWH. The better outcome also in patients with severe renal failure is an unexpected finding. This could be explained because these patients were more sick but any difference in baseline characteristics disappeared after propensity score matching. Are necessary more additional studies with longer follow-up.

Conclusions: This study show that initial therapy with UFH vs LMWH was associated with two-fold higher incidence of fatal PE during the first 15 days of therapy irrespectively of renal function with no differences in fatal bleeding.

T-56
PREDICTION OF QTHROMBOSIS RISK SCORE WITH PADUA RISK SCORES FOR MEDICAL INPATIENTS

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Objectives: To evaluate whether the prediction of QThrombosis risk with a risk scale for medical inpatients (Padua risk score) could be considered.

Material and method: Observational study of patients admitted to Internal Medicine service (Hospital Santa Lucía, Cartagena (Spain)). The first 5 consecutive patients who did not need anticoagulant therapy were daily gathered during a month and Padua risk score and QThrombosis risk were calculated.

Results: Ninety-four patients were valued with Padua risk score and QThrombosis risk score at 1-year (www.qthrombosis.org). Padua risk scoring was considered as a continuous variable. Patients with a high-risk scoring in Padua score had a prediction of VTE with QThrombosis calculator of 0.85 (SD = 0.64) and 0.25 (SD = 0.37) in patients with a low-risk Padua risk scoring ($p < 0.001$). An equation was calculated with a lineal regression analysis: QThrombosis risk scoring = 0.164 * Padua scoring (95%CI: 0.142-0.186). Determination coefficient was r2 = 0.70, so 70% QThrombosis scoring was determinated by Padua risk scoring.

Discussion: A scale for predicting risk of venous thromboembolism (Padua risk score) during admission the patient could predict not only the risk of an episode of VTE during it but up to 1 year after admission (QThrombosis risk).

Conclusions: A simple risk assessment scale (Padua risk score) could not only predict the risk of the patient of venous thromboembolism during admission but also up to one year after treatment.

T-75
PULMONARY EMBOLISM AND 3-MONTH OUTCOMES IN 4,036 PATIENTS WITH VENOUS THROMBOEMBOLISM AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE. DATA FROM THE RIETE REGISTRY

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Objectives: We recently found that patients with chronic obstructive pulmonary disease (COPD) present more frequently with pulmonary embolism (PE) than deep venous thrombosis (DVT) (Bertoletti et al. Eur Respir J. 2011).

(. They also suffer from higher rate of death, bleeding or PE as the first venous thromboembolism (VTE) recurrences than non-COPD patients. The main objective of this study was to compare the 3-month evolution of patients with COPD and acute VTE, according to their initial clinical presentation (PE or DVT), in the RIETE registry.

Material and method: In the RIETE registry, a prospective cohort study VTE patients, demographic data, characteristics of PE and DVT, and known risk factors were recorded in addition to events (death, bleeding, VTE recurrence) occurring within a 3-month follow-up. Adjusted hazard ratios (HR) and 95% confidence intervals (CI) for initial VTE presentation as a potential predictor for overall death, fatal PE, first recurrent VTE as PE and major bleeding were calculated in COPD patients whom require antithrombotic therapy for VTE.

Results: By June 2011, 4,036 (11%) of the 37,090 patients included in the RIETE registry had COPD (67% men, median age: 75 years). The initial VTE presentation was PE in 2,452 (60%). Under treatment, three-month cumulative incidence of overall death (including fatal PE), first recurrent VTE as PE and major bleeding were: 11% (Fatal PE: 2%), 2% and 2.5%, respectively. During the three month follow-up period, risk of fatal PE (HR = 8.21, 95%CI: 3.57-18.87), recurrent VTE as PE (3.87, 2.31-6.49) and death (1.46, 1.2-1.8) were significantly higher in COPD patients presenting with PE than in COPD patients presenting with DVT. There was a trend towards an increased risk of major bleeding (1.47, 0.96-2.24).

Discussion: The main limitations of the study were possible underestimations of recurrent PE and fatal PE in our group of patients with persistent respiratory symptoms, as the absence of functional respiratory data.

Conclusions: During the first three months of VTE treatment, the risk of death, fatal PE and recurrent VTE as PE were significantly increased for COPD patients presenting with PE compared to COPD patients presenting with DVT.

T-81
VENOUS THROMBO-EMBOLISM (VTE) RISK REASSESSMENT PATIENT SAFETY PROJECT

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Objectives: 40% of adult medical and major surgical inpatients are not receiving effective thrombo-embolism prophylaxis. This resulted in 25,000 deaths annually in England (Donaldson L. Annual Report of the Chief Medical Officer 2007). Apart from initial VTE risk assessment, National Institute for Health and Clinical Excellence stresses the importance of VTE risk reassessment after 24 hours of admission and whenever clinical condition changes (National Institute for Health and Clinical Excellence. Venous Thromboembolism. 2010). VTE risk has never been properly reassessed in our trust. This carries a significant patient safety risk. Aim: The aim of the project was to improve VTE risk reassessment in our hospital. Our target was to achieve 90% compliance in 1 ward in terms of VTE risk reassessment as per NICE guideline.

Material and method: A prospective 2-week-audit in a 24-bedded ward was performed. A sticker was then introduced in the drug chart to prompt doctors to reassess the VTE risk. This was coupled with education of all healthcare professionals in the ward. We then completed two further audit cycles. We assessed whether appropriate action has been taken if the patient's VTE risk has changed since admission. This was taken as our gold standard outcome clinical measure.

Results: Prior to the intervention, the percentage of patient having documented reassessment of VTE risk after 24 hours of admission has improved from 15% to 32% after two audit cycles. Our gold standard outcome also showed improvement from 53% to 75% after 2 audit cycles. We found that the low outcome measure initially was due to the failure in picking up error made in assessing the initial VTE risk on admission unless a significant clinical event occurs.

Discussion: Despite not achieving our target, we have noted improvement objectively from feedback received from the ward as well as subjectively as shown in the results. Further audit cycles and innovative ideas are being carried out to improve our outcome measures. We are also trying to incorporated VTE reassessment into e-prescribing which is being rolled out in our hospital.

Conclusions: VTE risk reassessment should be incorporated in our daily assessment of patients.

Others

V-3
THE EFFECTS OF PIOGLITAZONE AND METFORMIN ON PLASMA ASYMMETRIC DIMETHYLARGININE LEVELS IN PATIENTS WITH TYPE 2 DIABETES

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Objectives: Type 2 diabetes has become an epidemic disease in recent years. Patients with type 2 diabetes mellitus have higher risk for cardiovascular diseases than the normal population. Prospective clinical studies of the last years demonstrate the increased importance of Asymmetric dimethylarginine as a novel cardiovascular risk factor. We evaluated the effects of two insulin-sensitizing hypoglycemic agents on plasma Asymmetric dimethylarginine levels in patients with newly diagnosed and untreated type 2 diabetes mellitus.

Material and method: Forty-six patients with type 2 diabetes mellitus were randomized to treatment either with pioglitazone (15-30 mg/day) or metformin (1,000-2,000 mg/day). Plasma Asymmetric dimethylarginine (ADMA) levels and homeostasis model assessment of insulin resistance scores were determined at baseline and at 12th week of treatment.

Results: By the end of the 12th week, fasting plasma glucose, HbA1c, HOMA-IR scores and waist circumferences improved equally in both treatment arms. HDL cholesterol increased only in the pioglitazone group ($p = 0.01$). On the other hand, metformin treatment had additional regulatory effects on BMI, blood pressure and total and LDL-cholesterol levels ($p = 0.01$, $p = 0.01$, $p < 0.001$ ve $p < 0.001$, respectively). Pioglitazone and metformin lowered ADMA concentration but not displayed a significant effect.

Discussion: Neighter pioglitazone nor metformin displayed a significant effect on circulating ADMA concentration.

Conclusions: The results of the present study imply that two different oral antidiabetic agents which are commonly used in the treatment of type 2 diabetes mellitus have similar effects on endothelial functions.

Table 1 (V-3). The comparison of the results at baseline with pioglitazone or metformin

	Pioglitazon n = 23	Metformin n = 23	p
Gender (M/F)	13/8	14/9	
Age (years)	55.5 ± 8.0	55.0 ± 9.4	0.81
Waist circumfe (cm)	103.5 ± 8.3	102.4 ± 7.8	0.58
BMI (kg/m2)	30.4 ± 4.2	31.4 ± 3.8	0.44
SBP (mmHg)	129.8 ± 9.3	131.3 ± 9.0	0.50
DBP (mmHg)	82.0 ± 4.6	83.0 ± 6.1	0.47
HbA1c (%)	6.4 ± 1.1	6.9 ± 1.8	0.20

V-9
PHARMACOLOGICAL TREATMENT WITH TETRAHYDROBIOPTERIN IN PULMONARY HYPERTENSION

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Objectives: Pulmonary hypertension (PH) is a complex and multifactorial disease. It is characterized by endothelial cell dysfunction leading to pulmonary arterial vasoconstriction, vascular remodelling, inflammation and thrombosis in situ. Endothelial nitric oxide synthase (eNOS) is a cornerstone in endothelial cell and cardiac function and its activity is regulated by tetrahydrobiopterin (BH4). When BH4 bioavailability is limited, eNOS becomes uncoupled, i.e. dysfunctional, and generates superoxide rather than nitric oxide (NO), leading to the development of PH. Thus, the main objectives of this study are: 1) to clarify the role of endothelial BH4-eNOS-NO-Superoxide pathway in the pathophysiology of PH; 2) to evaluate the effect of pharmacological supplementation with BH4 in animal models of PH.

Material and method: Isolated perfused lung studies where used to explore the acute pharmacological effect of BH4 and its mechanism in regulating pulmonary vascular tone. In vivo studies were used to evaluate the effects of chronic BH4 treatment in PH models (hypoxia and monocrotaline- induced PH) and biochemical

and histological studies aimed to clarify the molecular mechanism of BH4 as a potential therapy for PH.

Results: In isolated perfused lungs, BH4 inhibited hypoxic pulmonary vasoconstriction and increased NO metabolites. In a Langendorff heart preparation, BH4 increased right ventricular systolic pressure (RVSP) in the hypertrophied right ventricle (RVH) compared to control as well as contractility. BH4 prevented the development of PH in MCT model. In a dose of 10 and 100 mg/kg, it reduced pulmonary artery pressure (PAP) (29.3 ± 5.2 to 21.7 ± 3.6 and 21.5 ± 2.3 mmHg, $p < 0.05$), attenuated RVH (10 mg/kg) and prevented it (100 mg/kg). BH4 (10 and 100 mg/kg) ameliorated vascular muscularization in a dose dependent manner (78 ± 4% and 64 ± 4% vs 95 ± 4% respectively, $p < 0.01$). eNOS protein levels in lung homogenates were maintained and cGMP was increased. BH4 rescue therapy attenuated further development of PH in MCT model. RVSP was reduced (46.2 ± 8.4, 43.6 ± 6.6 mmHg (10 and 100 mg/kg) vs 58.1 ± 16.0, $p < 0.01$) and RVH was attenuated (0.45 ± 0.1, 0.43 ± 0.1 (10 and 100 mg/kg) vs 0.53 ± 0.1, $p < 0.05$). BH4 attenuated pulmonary vascular muscularization. BH4 (10 mg/kg) reduced RV myocyte diameter compared to placebo while BH4 (100 mg/kg) reversed to control levels. BH4 maintained normal levels of eNOS protein and enhanced lung tissue levels of BH4, cGMP and NO. In hypoxia model, BH4 (100 mg/kg) reversed RVSP over 7 days (radiotelemetry, from 63 ± 4 to 44.5 ± 4 mmHg). At two weeks, BH4 (100 mg/kg) partially reversed RVH compared to placebo and BH4 (10 mg/kg) (0.50 ± 0.02, 0.58 ± 0.03 and 0.57 ± 0.1 respectively, $p < 0.05$). BH4 (100 mg/kg) induced partial reversal in vascular muscularization compared to placebo and BH4 (10 mg/kg) (65.2 ± 6%, 81.4 ± 9% and 74.3 ± 10% respectively, $p < 0.01$). BH4 (100 mg/kg) increased eNOS enzymatic activity in lung homogenates (but not protein levels). BH4 moderately increased cGMP ($p > 0.05$) and significantly reduced superoxide levels.

Discussion: BH4 increases NO and H_2O_2 production and has direct antioxidant action, all leading to pulmonary vasodilation and enhanced cardiac contractility. BH4 was a safe and tolerant therapy. BH4 was effective in prevention and amelioration of PH in MCT model. BH4 partially reverses PH in hypoxia model. The mechanisms of BH4 therapy involve the following: Improvement of pulmonary & cardiac hemodynamics, attenuation/reversal of cardiac hypertrophy, amelioration/reversal of lung vascular muscularization and improving endothelial cell dysfunction.

Conclusions: BH4 is a potential therapy which addresses the vasoconstrictive, hyperproliferative and hypertrophic nature of PH and warrants further investigation.

V-23
GENETIC ANALYSIS OF 373 SNPS IN OBSTRUCTIVE SLEEP APNEA (OSA)

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Objectives: To study the genetics components of the Obstructive Sleep apnea.

Material and method: We performed a genetic association analysis of 373 polymorphism (SNPs) wiith OSA. These SNPs were selected in a previous genome wide association analysis (GWAS) for metabolic syndrome (MS) related phenotypes. The genetic association study of OSA includes 387 subjects retrospectively assessed at the Internal Medicine Unit of the "Virgen de Valme" University Hospital (Seville, Spain). All of them are hypertensive patients. All participants gave their written consent to participate. To increase the power of our study we used data from the Framingham sleep study on OSA. The diagnostic of obstructive sleep apnea was done through polisomnography. OSA was defined as an IAH of 5 or more. We used a stepwise logistic regression model to select de independent determinants of OSA. The traits associated with $p < 0.05$ in this model, were used as covariables for the genetic association study of OSA We performed independent analyses in both population and a joint analysis controlling by population effect (included as a covariable in the model).

Results: The Spanish population consists on 225 men and 161 women between 15 and 96 years old. The prevalence of OSA is 90.7%, 80% has MS (ATP3 definition) and 81.9% are obese (BMI > 30). The Framingham population consists on 183 men and 185 women between 40-81 years old. The prevalence of OSA is 65.8%, 35% has MS and 34% are obese. In the independent analysis in each population, we didn't identify any SNP associated with OSA with $p < 10^{-4}$ as determined by the Bonferroni correction ($p = 0.05/373, < 10^{-4}$). None but the rs11211631 polymorphism is associated with OSA with $p < 0.5$ in both populations with the same direction of effect. In the joint analysis, this SNP is associated with OSA with $p = 7.21 \times 10\text{-}4$, which is in the range of Bonferroni correction. At this locus, the presence of the A allele reduces the risk of OSA presentation with an estimated OR of 0.57 (0.42-0.79).

Discussion: In the pathogenesis of OSA, genetic factors play an important role, explaining up to 40% of the variance of (AHI). Nevertheless, there is little data regarding specific genes associated with OSA. Some genes have been related to OSA: genes affecting upper airway and ventilator control (such the serotonin receptor type 2A (5HTR2A) or the transcription factor (Phox2b) and, in genes related to metabolic syndrome components. In our study the only SNP consistently associated with OSA syndrome in the whole population is the rs11211631 polymorphism. We have investigated if the presence of hypertension in our population, a well known risk factor for OSA, was acting as a confounding factor in our study. The Breslow-Day test performed in the Framingham population based sample did not show evidence of heterogeneity affecting our results ($p = 0.5019$ for the 11211631 polymorphism).

Conclusions: As a whole, or study does not support that OAS and MS share major genetic determinants. Only the SNP rs11211631 seems to be associated with the occurrence of OSA but this result must be validated in independent studies.

V-25
LOWER LIMIT NORMALITY (LLN) FOR COPD DIAGNOSIS

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Objectives: To compare the differences emerging in a cohort of patients with COPD diagnosed by GOLD criteria using the lower limit of normality (LLN) to define COPD.

Material and method: Prospective cross-sectional study carried out in the Internal Medicine Department of Povisa hospital, that included patients with COPD diagnosis based on GOLD criteria, consecutively admitted for different reasons from September 2008 to March 2010. The following variables were recorded: age, sex, smoking status, COPD severity, evolution of the disease, cardiovascular risk factors, comorbidity and reasons for admission. The LLN criteria for defining COPD were based on lower limit of normal of FEV1/FVC obtained by the formula of the CECA. Finally, there were 2 groups: patients who met the criteria for COPD diagnosis using the LLN and patients who didn't it.

Results: Two hundred forty six patients were included and 51 (20.7%) were women. By using the LLN criteria 53 patients of those diagnosed by GOLD criteria were excluded (21.5%), 3 of them were women. COPD patients diagnosed by LLN criteria were more frequent

actively smokers than excluded patients (26.4% vs 11.3% p = 0.02, OR = 2.8, CI 1.1-6.9). Patients excluded by LLN criteria had more prevalence of previous smoking (73.6% vs 53.4%, p = 0.008, OR 0.4, CI 0.2 to 0.8), hypertension (77.4% vs 51.8%, p = 0.001, OR 0.3, CI 0.1 -0.8), CV events (47.2% vs 20.7%, p < 0.001, OR 0.2, CI 0.1 to 0.5), intermittent claudication (24.5% vs 9.8%, p = 0.005, OR 0.3, CI 0.1 to 0.7) and higher mean age (76 ± 9.3 vs 69 ± 11.1, p < 0.001) with a less severity of disease (higher VEF1 and FEV/FVC) (60 ± 14 vs 48 ± 14.4 and 0.68 ± 0.02 vs 0.55 ± 0.08, p < 0.001). When we compare the causes of hospitalization between the two groups, the patients with COPD diagnosed by criteria LLN had a higher prevalence of COPD exacerbation (80.8% vs 56.6%, p = 0,005), whereas those excluded by LLN had a higher percentage of hospitalizations for heart failure (15.1% vs 3.6%, p = 0.005). There were no differences in the other variables studied. There were no differences according to gender in the LLN criteria group COPD with respect to the analysis in the original population defined by GOLD criteria (p = 0.6).

Discussion: The definition of airway obstruction from a fixed ratio may inappropriately classify the presence of obstruction in extreme ages and the overdiagnosis is especially relevant in olders than 70 years due to physiological changes that occur over the years. The use of LLN to diagnose obstruction can avoid the mentioned limitations as it considers the values based on age and sex. In our series, although the mean age was advanced, the highest percentage of patients had severe or very severe illness with respiratory symptoms in the most cases. In this situation the over diagnosis is less likely so with the use of LLN criteria, a small percentage of older patients with milder disease but with more comorbidities were excluded.

Conclusions: By using the LLN criteria for the diagnosis of COPD compared to GOLD criteria, a population of older age, with less deterioration of lung function but with greater number of comorbidities were excluded. The use of LLN criterion may be useful to avoid over diagnosis of COPD in older people because these population may have criteria in spirometry due to the changes in lung function over the years without symptoms or history to justify the disease. In those cases in which the symptoms of COPD are clear, the use of LLN criterion does not provide additional benefits to the GOLD criteria.

V-35
METABOLIC SYNDROME EPIDEMIOLOGY

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Objectives: Metabolic syndrome defines the presence of a group of metabolic factors at the same individual, with various clinical manifestation proportions and intensities, being associated with an increased risk of developing cardiovascular disease and type 2 diabetes. The main objective of this paper is to determine the prevalence of Metabolic Syndrome according to different parameters in patients with type 2 diabetes.

Material and method: A group study of 290 patients with type 2 diabetes hospitalized in the Diabetes Clinic of Oradea from January 2011- March 2012.For every patient was made a study sheet in which was noted: sex, age, duration diagnosed with diabetes, type of diabetic treatment, family history, complications of diabetes mellitus, type of diet and physical activity weight and abdominal circumference, metabolic control, lipid profile (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides),inflammatory status (fibrinogen, C-reactive protein), blood pressure and electrocardiographic examination.

Results: Metabolic Syndrome was found in 167 of the patients, resulting in a prevalence of 57.6%. MS prevalence was higher in men than women, but without significant difference (p > 0.05). Prevalence was maximum at the ages between 41-60 (67.7%), followed by the patients with ages over 60 (50.0%) and was 1.2 times higher in patients living in the urban area compared to the rural area (64.5% vs 52.7%). The greatest prevalence of MS was registered at the patients treated with ADO (70.9%), 1.3 times greater than those who are insulin dependent (p < 0.05). Obese patients have the prevelence over 80%, significantly higher than that in overweight patients (33.0%) or normal weight patients (3.3%) (p < 0.001). The risk of MS is 26 times higher in obese compared to normal weight patients (RR = 26.09), and 2.6 times higher in obese compared to overweight patients. Significant differences exist in the lipid profile of patients with and those without MS (p < 0.001). Fibrinogen and CRP have values above the normal limits, with significantly higher percentages in patients with MS compared to those without it (22.8% vs 15.5%, respectively 27.0% vs 22.0%) (p < 0.05).

Discussion: There are no significant differences in glycaemia between patients with or those without MS. Prevalence of diabetic complications is higher in those with MS compared to those without it (92.2% vs 87.8%) (p < 0.05). ECG modifications were 1.6 times higher in those with MS as compared to those without it (63.5% vs 39.8%) (p = 0.023). Significantly high differences were observed in dysmetabolic cardiomyopathy (52.2% vs 19.6%) (p < 0.001).

Conclusions: 1. Prevalence of metabolic syndrome was higher in men than in women, but no significant differences (p > 0.05) between the ages of 41-60 years (67.7%) and urban area (64.5%). 2. Metabolic syndrome risk is 1.7 times higher in patients with positive family history compared to those without positive family history of metabolic and/or cardiovascular disease (RR = 1.74). Also the risk in postmenopausal women is 2.6 higher than in premenopausal women (RR = 2.63). 3. Metabolic syndrome risk is 1.7 times higher in patients that have a hyper-caloric diet and/or hyper-lipidic diet compared to those with healthy eating habits (RR = 1.69). 4. The risk of metabolic syndrome in patients without physical activity is 1.3 times higher than for those with physical activity (weekly or daily) (RR = 1.26). 5. The risk of metabolic syndrome is 26 times higher in obese than in normal weight individuals (RR = 26.09), and 2.6 times higher in obese compared to overweight individuals (RR = 2.61). 6. In regard to lipid profile there is a significant difference between patients with metabolic syndrome and those without metabolic syndrome (p < 0.001).

V-38
CLINICAL FEATURES AND PREDICTIVE RISK FACTORS FOR RECURRENT UPPER GASTROINTESTINAL BLEEDING IN AN EMERGENCY ROOM

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Objectives: To describe the clinical characteristics of patients with recurrent UGIB and the variables related to rebleeding risk in our population.

Material and method: Prospective observational case series. We studied consecutive patients attending to the emergency room (ER) of the Hospital Severo Ochoa, Leganés, Madrid, with a diagnosis of UGB during one year (from 1-april-2010 to 31-march-2011). In this report we present data on patients suffering recurrent UGIB. The investigators obtained written approval by the Institutional Ethics Committee prior to patient inclusion. Patients signed an informed consent before inclusion. Statistical analysis was performed with SPSS 15.0 for windows.

Results: During the observation period 206 patients were admitted in the ER with the diagnosis of UGIB; 66.5% were males. Mean age was 63.25 (SD ± 18.43). The prevalence of recurrent bleeding in this population was 6.8%, with a mean age of 64.4

(slightly older than non-rebleeders). Fifty percent or rebleeding episodes appeared in the first 48 hours. Rebleeders had more frequent history of digestive complaints; the most frequent were dyspepsia, gastrointestinal surgery and gastrointestinal neoplasia. The prevalence of gastrointestinal neoplasia in patients with rebleeding was statistically significant (OR = 2.5, p = 0.003); early rebleeding was frequent in this group. A clinical presentation as hematemesis was significantly associated with rebleeding risk (OR = 11; p = 0.005. Active bleeding (OR = 7 and p = 0.022) and recent hemorrhage through a nasogastric tube (0R = 5.3, p = 0.065 were also related with higher risk of recurrence. Forrest classification was available in 53.5% of all patients and in 32.6% of those with recurrent bleeding (the remainders were unclassifiable lesions). Rebleeders didn't have worse Forrest scores than non-rebleeders. Nevertheless, early rebleeders did have higher mean scores in the clinical risk scales (Rockall and Blatchford), this difference was not present in patients with later recurrences.

Discussion: An important goal in the management of upper gastrointestinal bleeding (UGIB) is defining a group with high risk of recurrent bleeding, to provide adequate diagnostic and therapeutic measures. We provide guidance on some clinical parameters that could impact on the risk of rebleeding. The basic tool was to establish the profile of rebleeders: sixth decade, often male and alcohol abuse. Early rebleeders tend to be older, have history of peptic ulcer, gastrointestinal malignancy or gastrointestinal surgery and the most common presentation is hematemesis. Late rebleeders are usually younger and often have liver disease with portal hypertension. Also, this study shows a relationship between the presence of cancer and the risk of rebleeding that is important for the adoption of special measures of care for these patients. Note that in this study, endoscopic Forrest classification, had little value, probably due to the low number of cases and also, because most illnesses were not classifiable by this scale. Limitations: low number of cases in our population so it is necessary to perform multicenter studies with sample size calculated based on the recurrence of rebleeding in UGIB.

Conclusions: 1) We found a 6.8% prevalence of rebleeding in UGIB. 2) Half of the recurrences were found in the first 48 hours. 3) Dyspepsia, gastrointestinal surgery or the presence of gastrointestinal neoplasia were the most frequent antecedents. 4) Rebleeding patients had more frequently neoplasia, especially early rebleeders (they had 2.5 probability of recurrent hemorrhage). 5) Presentation with hematemesis had 11 times more probability of rebleeding. 6) Active bleeding and recent bleeding upon nasogastric tube insertion were associated with increased risk of rebleeding. 7) Given the low frequency of rebleeding, for the proper assessment of the clinical characteristics of patients suffering recurrent UGIB, and accurate prediction of risk, more powerful studies are needed (with greater samples or multicentric recruitment).

V-41
CONSTITUTIONAL SYMPTOMS, STUDY OF A SERIES OF 100 PATIENTS

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Objectives: First, to determine the frequency of constitutional symptoms (unintentional weight loss, asthenia and anorexia in the last 6 months) as reason for referral to our unit; second, to know the spectrum of diseases responsible of the constitutional symptoms in our setting and third, to analyze the association between relative variables and the final diagnosis.

Material and method: Retrospective cohort study of 100 patients studied on the UCAI-MI (Unidad de Consulta y Atención Inmediata-Medicina Interna) from 2008 to 2012 in a tertiary-care level teaching hospital in Spain, including only those whose reason for referral to our unit was the triad of unintentional weight loss, asthenia and anorexia. A descriptive study was performed, analyzing epidemiological and analytical values, clinical characteristics as well as the number of studies needed and its association with final diagnosis, especially with cancer. Quantitative variables comparison was performed using the Student´s t test or the ANOVA test when more than two groups were compared. Qualitative variables comparison was performed by the χ^2 test, using Fisher's exact test when expected frequency was less than 5. SPSS statistical program version 18 was used.

Results: During the study period, 2,489 patients were derived to UCAI-MI (mainly from emergency department and primary care centres). Of these, 230 patients had constitutionals symptoms, but only 100 met the 3 symptoms. Of these, 57% were males, the median age was 76 years-old (27-93). The median days of study till diagnosis were 19 days (1-150). The average number of tests needed to reach the diagnosis was 3.57 (SD = 1.58). The most frequent diagnostic groups were cancer (37%), not-cancer digestive disease (13%), autoimmune diseases (8%), infectious diseases (7%), dementia (3%), and other diseases (23%). Remarkably, only 3% of mood disorders were diagnosed. The most common aetiologies of cancer were colorectal (9 cases), gastric (6), lung (5) and pancreas (5). A comparative study based on age was performed, no patients under the age of forty-five years had cancer, 32% of patients between forty-six and seventy-five years old had cancer, and 50% of patients over 76 years old had cancer, this difference is statistically significant ($p < 0.05$). The most relevant variables related with cancer were age over 75 years old ($p = 0.008$), symptoms such as bone pain, dyspnoea, abdominal pain ($p = 0.01$), analytical values including anaemia, high CRP, high ESR ($p < 0.005$). The single serum tumour marker statistically associated with the presence of oncologic disease was Cyfra 21.1 ($p = 0.049$).

Discussion: Over 10% of patients seen in our unit refer constitutional symptoms, which represents a significant healthcare burden. We found differences with other studies in the prevalence of most common diseases related with constitutional symptoms, probably due to the different patient profile attending our unit (exclusively outpatients). Age of patients, analytical variables (CRP, ESR, haemoglobin), and specific symptoms are better predictors of cancer disease than tumour markers at initial diagnosis.

Conclusions: The presence of constitutional symptoms is a matter of concern for physicians who are at the door of the health system. These patients are referred quickly to rule out serious disease like cancer. In this context, as expected, the risk of cancer increases with age, occurring in half of patients over 75 years. Patients with a higher CRP, ESR or anaemia as well as those who have specific symptoms are more likely to have cancer. Notably, even in the presence of constitutional symptoms, there was no oncologic disease in patients younger than 45-years, so other causes should be sought in this subgroup.

V-57
BIOMARKERS IN FABRY DISEASE (FD)

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Objectives: Cystatin C (CsC) is a useful biomarker in early renal and cardiac damage. NT-proBNP has a negative predictive value in

heart failure. We have studied the relationship between these two biomarkers and Mainz Severity Score Index (MSSI) in FD.

Material and method: We performed a descriptive study including 89 FD patients, and a corresponding number of matched healthy controls. Statistical analysis was performed with SPSS 18.0.

Results: MSSI was calculated by gender (Table 1). In studies of correlation (Spearman rho) we found a statistically significant relationship ($p < 0.01$) between CsC and renal score, with a strong correlation (r 0.644, $p < 0.001$, 95%CI 0.497-0.776), and between NT-proBNP and cardiovascular score (r 0.656, $p < 0.001$, 95% 0.515-0.758). Stratified by gender Spearman rho was 0.601 in women ($p < 0.001$) and 0.642 in men ($p < 0.001$). As for the ratio of NT-proBNP and cardiovascular score is 0.457 in men ($p < 0.001$) and 0.747 women ($p < 0.001$). To assess organ involvement, we performed the correlation coefficient between CsC and GFR being 0.713 ($p < 0.001$) and stratified by gender was 0.685 in women ($p < 0.001$) and 0.409 in men ($p < 0.001$). Relating NT-proBNP and GFR, the coefficient was 0.557 ($p < 0.001$) (0.478 in women and 0.240 in men, both $p < 0.001$).

Discussion: In FD it's not available biomarkers to assess disease progression, needing of initiate ERT, or response to it. Our study found a strong correlation between CsC and renal failure, being higher in the case of women, in which the clinical presentation due to lyonization phenomenon is more variable. We have also found a strong correlation between NT-proBNP and cardiovascular impairment, much higher in women. This is a very interesting result, because in women, the variability in clinical presentation is greater, so it can be very useful CsC in early renal involvement, and NT-proBNP in early cardiovascular damage. There are many unknowns about when to start ERT or if it's being effective. The data obtained in our study have significant validity from the standpoint of clinical and prognosis and to speculate about the use of CsC and NT-proBNP as biomarkers in FD, with the MSSI, and they will bring to this one more dynamic in terms of patient assessment.

Conclusions: CsC is a good prognostic marker in early FD to determine the renal and/or heart failure. NT-proBNP is elevated in patients with FD and cardiac damage, so it's a good marker for the detection of suchinvolvement. CsC and NT-proBNP are good biomarkers in early renal and cardiovascular damage in women. CsC could be a good biomarker in the FD in the future, after further studies with serial measurements inpatients on ERT, thus underpinning earlier intervention in cases of poor outcome.

Table (V-57)

MSSI	Total	General	Neurological	Cardiovascular	Renal
Female	17.35	4.8	4.47	5.08	2.93
Male	28.13	6.19	6.02	10.64	5.11

V-64
SERUM VITAMIN A, E, B3, B6, B12, C AND FOLIC ACID LEVELS AND BRAIN ATROPHY AMONG ALCOHOLICS

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Objectives: Alcoholics are often malnourished, and deficiency in micronutrients are frequently observed among them. Some vitamins, such as vitamin E, B1, A, among others, may be involved in brain alterations suffered by these patients. We analysed the relation between serum vitamin A, E, B6, B3, D, B12, C and folic acid and brain atrophy, cognitive impairment, nutritional status, and liver function impairment among cirrhotics and non-cirrhotic alcoholics.

Material and method: 75 alcoholics (10 women) admitted to our unit due to withdrawal syndrome, subjected to brain computed tomography (CT) scan, in which Evans, Huckmann, ventricular, and cella indices were quantitatively assessed, as well as frontal atrophy and cerebellar atrophy; liver function, minimental test, and nutritional status both by anthropometry (body mass index (BMI)), whole body densitometry (total fat mass and total lean mass), and subjective evaluation.

Results: Mean age was 51 ± 12 years. Marked differences were observed among cirrhotics and non-cirrhotics regarding Vitamin A and E (lower in cirrhotics, $t = 3.16$ and $t = 3.11$, respectively; $p < 0.003$) and B12 (higher in cirrhotics, $t = 2.74$; $p = 0.008$). Vitamin E showed a significant correlation with ventricular index (= 0.44; $p = 0.007$); vitamin B6 was significantly lower among those with cerebellar atrophy ($t = 2.33$; $p = 0.027$) and a trend was observed between cerebellar atrophy and vitamin E ($t = 1.90$; $p < 0.07$). In addition vitamin A, vitamin E and vitamin B6 levels were significantly related with liver function impairment (assessed by prothrombin, albumin, and bilirubin), and an inverse, significant trend (inverse correlations with albumin and prothrombin activity and direct one with bilirtubin) was observed for vitamin B12.

Conclusions: Among alcoholics, liver function impairment leads to altered serum vitamin levels, which are o related with brain alterations. No relation was observed with BMI, lean or fat mass, or subjective nutritional evaluation.

V-67
ANALYSIS OF THE EXPRESSION OF PEROXISOME PROLIFERATOR-ACTIVATED RECEPTORS GAMMA (PPAR GAMMA) IN OBESE PATIENTS

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Objectives: Chronic disorders, such as obesity, diabetes, inflammation, non-alcoholic fatty liver disease and atherosclerosis, are related to alterations in lipid and glucose metabolism, in which peroxisome proliferator-activated receptors (PPAR) alfa, PPARbeta/delta and PPARgamma are involved. Our objective was to analyze the expression of PPAR gamma in obese patients and lean controls.

Material and method: Prospective observational case-control study comparing obese adult patients (at least 18 years of age) with body mass index (BMI) greater than 35 who underwent elective bariatric surgery at the University Hospital of Salamanca between November 2010 and November 2011 versus healthy volunteer controls with BMI lower than twenty-five. Before surgery, fasting venous blood samples were collected. Serum was obtained after centrifugation and was stored at -80 ºC and human whole blood was collected in PAXgene Blood RNA Tubes and stored at -20 ºC until RNA was extracted. The expression of mRNA was examined by quantitative PCR analysis using a 7900 Fast Real-Time PCR machine. The relative mRNA expression was normalized by measurement of the amount of GAPDH mRNA. Statistical significance was calculated by using Student's t-test.

Results: A total of 28 subjects, 17 patients and 11 controls were included in this case–control study. Of these patients, 12 were female and 5 were male. The mean age was 45 years, the mean preoperative weight was 132.16 Kg, with a BMI of 49 kg/m^2. After RNA extraction and PCR analysis, we observed that obese patients had significantly decreased blood PPAR-gamma expression when compared with lean controls ($p < 0.05$).

Discussion: Obesity acts as a stress signal that induces multiple inflammatory responses in tissue, which play an important role in the pathogenesis of cardiovascular disease, metabolic syndrome, non-alcoholic fatty liver disease and hepatocellular carcinoma (HCC). The PPARgamma is a nuclear receptor that regulates adiposity differentiation, insulin sensitivity and lipid metabolism. Recent studies in mice have determined that PPARgamma overexpression might be a protective factor for the development of hepatic steatosis and HCC. In our study, obese patients had lower levels of PPARgamma in blood, so it is important to conduct further studies to determine its correlation with a possible increased risk of developing non-alcoholic fatty liver disease (NAFLD) and/or HCC.

Conclusions: There are differences in the expression of PPARgamma blood between obese patients and healthy controls, so more studies are needed to determine whether evidence of low levels of PPARgamma in obese patients correlates with increased development of NAFLD and/or HCC.

V-72
ULTRA-LONG-ACTING INSULIN DEGLUDEC HAS A FLAT AND STABLE GLUCOSE-LOWERING EFFECT

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Objectives: To evaluate the dose-response relationship of IDeg at steady state (SS) in people with type 2 diabetes.

Material and method: In this double-blind, two-period, crossover trial, the dose response relationship of three doses of IDeg (0.4, 0.6 and 0.8 U/kg) was evaluated at steady state. Participants were given IDeg once-daily for 6 days, with a washout period of 13–21 days between treatments (starting after the last dosing on Day 6). Following dosing on Day 6, subjects underwent a euglycaemic glucose clamp (Biostator; clamp blood glucose level: 5 mmol/L). Pharmacokinetic samples were taken up to 120 h after the last injection of IDeg.

Results: Forty nine insulin-treated people with type 2 diabetes without concomitant oral anti-diabetic agents were included (mean: age, 58.7 years; BMI, 29.6 kg/m^2; HbA1c, 7.6%; duration of diabetes, 14.1 years). For all dose levels, mean 24-h glucose infusion rate (GIR) profiles were flat and stable. Total glucose-lowering effect (AUCGIR, total, SS) increased linearly with increasing dose. Over 24 h, the glucose-lowering effect of IDeg was evenly distributed between the first and second 12 h for all 3 dose levels (AUCGIR,0–12h,SS/AUCGIR, total, SS = 0.5). The blood glucose levels of all participants stayed very close to the clamp level until the end of the experiment (mean blood glucose levels in the last 10 min of a 24-h dosing interval were 5.0–5.1 mmol/L for all IDeg doses). Total serum exposure of IDeg (AUCIDeg, total, SS) increased proportionally with increasing dose with an estimated log-dose slope of 0.93 [95%CI: 0.82; 1.03]. The terminal half-life estimated across the three dose levels after the last dose was 25.1 hours. IDeg was well tolerated and no safety concerns were identified.

Discussion: Insulin degludec (IDeg) is a new-generation, ultra-long-acting basal insulin that forms soluble multi-hexamers upon subcutaneous injection, resulting in a depot from which IDeg is continuously and slowly absorbed into the circulation. These pharmacological properties provide a stable blood glucose-lowering effect which lasts beyond 24 hours in people with type 2 diabetes.

Conclusions: IDeg has a flat and stable blood glucose-lowering effect, and a duration of action beyond 24 hours in people with type 2 diabetes.

V-86
INTRAVENOUS THROMBOLYSIS IN ACUTE ISCHEMIC STROKE. FACTORS INVOLVED

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Objectives: To evaluate medical practice and results of intravenous thrombolytic therapy (IVT) with rTPA in acute ischemic stroke and factors associated.

Material and method: Prospective cohort study. Data were obtained using UCI neurocritical patient database from 2002 to 2010, inclusive. We included all patients with acute ischemic stroke treated with IVT. Independent variables were defined as age and sex, time first symptoms-emergency admission (T1), emergency admission-CT (T2) and CT-IVT administration (T3), and CT findings, including the presence of ischemic penumbra. Quantification of initial neurological deficit was assessed by NIHSS at admission and 24 h of IVT, the degree of disability for daily activities at 3 months by the modified Rankin Scale (MRS). Symptomatic cerebral hemorrhage (SCH) and malignant infarction of middle cerebral artery were considered complications. Quantitative variables were expressed as mean ± SD and qualitative variables are expressed as percentages. We used the chi^2 test and t Student.

Results: We analyzed 166 patients, age = 65.7 ± 11.6 years, 57.8% males. The neurological deficit of 14.9 ± 5.6 points admission NIHSS decreased to 10.1 ± 7.1 ($p < 0.001$) 24 hours after IVT. The times were: T1: 91.5 ± 67.8 minutes, T2: 124.9 ± 68.9 minutes, and T3: 175.3 ± 83.8 minutes. The rate of SCH was 9.6%, and was correlated with higher admission NIHSS score 17.7 ± 4.6 vs 14.6 ± 5.7 ($p < 0.04$) and male sex, 57.8% vs 42.1 ($p < 0.05$) The rate of malignant infarction of the middle cerebral artery was 6.5% and was associated with a 62.5% mortality. The degree of freedom from dependence/disability at 3 months (MRS 1 and 2) correlated only with the admission NIHSS score, 16.4 ± 4.8 vs 13.3 ± 6.4 ($p < 0.005$) and female gender, 59 vs 41% ($p < 0.005$).

Conclusions: The IVT is secure and efficient treatment in ischemic stroke. This analysis allows us to identify the variables associated with complications and functional status of patients.

V-93
INSULIN DEGLUDEC IMPROVES LONG-TERM GLYCAEMIC CONTROL WITH A LOWER RATE OF HYPOGLYCAEMIA VS INSULIN GLARGINE IN TYPE 2 DIABETES

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Objectives: To compare the efficacy and safety of IDeg with insulin glargine (IGlar), both treatments administered once daily with mealtime insulin aspart ± metformin ± pioglitazone as part of a basal–bolus treatment regimen.

Material and method: This was a 1-yr, open-label, treat-to-target trial. Subjects with type 2 diabetes and HbA1c 7–10% after at least 3 months of any insulin regimen ± OAD(s) were randomised (3:1) to IDeg or IGlar. Basal and bolus insulin were titrated weekly

throughout the study using structured algorithms. The target glucose for basal insulin was a FPG < 5 mmol/L.

Results: A total of 992 subjects were included (mean: age 58.9 years, diabetes duration 13.5 years, HbA1c 8.3%, FPG 9.2 mmol/L) A similar proportion of subjects completed the trial with IDeg (83%) and IGlar (85%). After 1 year, 50% of the subjects in both groups achieved a target HbA1c < 7% (p = NS) and HbA1c levels decreased 1.2%-points and 1.3%-points for IDeg and IGlar, respectively (estimated treatment difference [ETD] IDeg-IGlar: 0.08%-points [95%CI: –0.05; 0.21]). FPG was reduced by 2.4 mmol/L with IDeg and by 2.1 mmol/L with IGlar (ETD: –0.3 mmol/L [95%CI: –0.65; 0.06], p = NS). The rate of confirmed hypoglycaemia (defined as either a PG < 3.1 mmol/L or a severe episode requiring assistance according to ADA definition) was significantly lower with IDeg than IGlar (11.1 vs 13.6 episodes/patient-year; estimated rate ratio [ERR] IDeg/IGlar: 0.82 [95%CI: 0.69; 0.99], p = 0.0359). The rate of nocturnal confirmed hypoglycaemia (confirmed hypoglycaemia occurring between 00:01–05:59) was 25% lower with IDeg compared to IGlar (1.4 vs 1.8 episodes/patient yr; ERR: 0.75 [95%CI: 0.58; 0.99]; p = 0.0399). Rates of severe hypoglycaemia were low for both IDeg and IGlar (0.06 and 0.05 episodes/patient yr, respectively). IDeg was well tolerated; the rates of adverse events were similar between IDeg and IGlar groups, with no treatment-specific effects. Total mean daily insulin doses were 1.46 U/kg and 1.42 U/kg at 1-yr in the IDeg and IGlar groups, with ~50:50 relative contributions of the basal and bolus components.

Discussion: The ultra-long action profile of insulin degludec (IDeg), a new basal insulin, is due to soluble multi-hexamer formation upon subcutaneous injection. This long-acting profile may provide similar effectiveness as other basal insulin, while reducing the risk of hypoglycaemia, as observed in this trial.

Conclusions: Insulin degludec, given as basal–bolus treatment with insulin aspart improves long-term glycaemic control with a significantly lower risk of overall and nocturnal hypoglycaemia compared with insulin glargine for patients with type 2 diabetes.

V-111
ADRENOCORTICAL CARCINOMA: LOW INCIDENCE HIGH MORTALITY

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Objectives: Adrenocortical carcinoma is a rare tumor originated in the adrenal cortex, with an incidence of 1-2 per million population annually with characterized by a 5-year survival of less than 50%. Early diagnosis is uncommon; when diagnosed, AC are usually on advanced stages of National Cancer Institute (NCI). Complete surgical resection is the only potentially curative treatment for patients on localized tumors. OBJECTIVES: To analyze all the cases of adrenocortical carcinoma (AC) diagnosed in POVISA Hospital during the period included from january 2000 to march 2012.

Material and method: Retrospective study designed to describe all the cases of adrenocortical carcinoma in the period previously described. All the patients with clinical symptoms and signs, tests with suggestive findings and confirmed pathological anatomy of adrenocortical carcinoma were included. We describe the main presentation, clinical findings, treatment received and evolution.

Results: There were diagnosed 6 patients (4 females, 2 males) with a mean age of 65 years.All of them were diagnosed on stage IV of National Cancer Institute (NCI). Personal history of hypertension (50%), smoking habit (17%), previous cancer (17%). Regarding to the symptoms we found Cushing syndrome (83%), steroid myopathy (67%), arterial hypertension (50%), hyperandrogenism (17%), abdominal symptoms (17%), general repercussion (17%). Imaging studies and blood tests showed elevated cortisol plasma level (100%), adrenocortical tumor > 6 cm in tomography (83%), hipokalemya (66%), hyperglucemia (66%), alteration in coagulation (66%), erythrocyte sedimentation rate (50%), hyperaldosteronism (33%). All of them received treatment: symptomatic with adrenolitic drugs (66%), adjuvant Mitotane treatment (50%), chemotherapy with different protocols (50%) and surgery with nefrectomy and supradrenalectomy (33%).With respect to evolution they had a survivor rate of 5,5 months after diagnose, 83% died and only 17% are alive.

Conclusions: Adrenocortical carcinoma is a rarely cancer but with a high mortality. Although it can be potentially cured on early stages, unfortunately is often diagnosed in advanced stages of NCI. Cushing syndrome and steroid myopathy are the most frequent symptoms and signs we found and regarding to imaging a blood studies elevated cortisol level, hipokalemya, hyperglucemia and supradrenal tumor > 6 cm. On the stage all our patients were diagnosed there was no possible curative treatment. We must suspect this pathology when we have this symptoms and signs in order to do an early diagnosis.

V-112
INFLUENCE OF OBESITY AND MALNUTRITION ON RESPIRATORY DISEASE ADMISSIONS

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Objectives: Obesity is a risk factor in other conditions, like high blood pressure, heart disease and type-2 diabetes. However, recent studies have shown that obese people with chronic diseases have a better chance of survival than normal-weight individuals do. This finding has been called the "obesity paradox". Malnutrition is a common problem in patients with chronic or serious diseases, there are a lot of studies that have repeatedly demonstrated how clinical malnutrition negatively affects the recovery from a disease, trauma or surgery, and it is generally associated with an increase in morbidity and mortality both in acute and chronic patients. Our aim is to analyze the influence of obesity and malnutrition on in-hospital mortality and re-admittance 30 days after discharge in patients admitted for respiratory disease.

Material and method: Data from the Minimum Basic Data Set (MBDS) from all patients discharge from all the Departments of Internal Medicine (IM) of the Spanish National Health hospitals between the years 2005-2009 were analyze. We analyzed those patients with a Major Diagnostic Category (MDC) equal to 4 –Respiratory Disease-. The Major Diagnostic Categories (MDC) are formed by dividing all possible principal diagnoses (from ICD-9-CM) into 25 mutually exclusive diagnosis areas. Patients with a diagnosis of obesity (ICD-9: 278.00-278.09) or malnutrition (ICD-9: 260-263.9) were also identified. The mortality indexes of obese and malnourished patients were compared against the subpopulation without theses diagnosis.

Results: 833,091 respiratory disease admittances were analyzed, with 65,099 (7.9%) diagnosis of obesity and 13217 (1.6%) of malnutrition. In-hospital global mortality reached 11%, 5.1% in obese patients and 11.5% in non-obese; p < 0.001. Obese patients showed a lower in-hospital mortality risk (OR 0.45 95%CI 0.43-0.46) than non-obese after adjusting for possible confusing factors (age,

sex, Charlson index, acute respiratory failure). Mortality in malnourished patients was 20.5%, vs 10.5% in non-malnourished; p < 0.001. Malnourished patients had a much higher risk of dying while in hospital (OR 1.93 95%CI 1.85-2.02) even after adjusting for possible confusing factors.

Discussion: Overweight or obese status is typically, although not always, seen with chronic bronchitis, whereas emphysema is typically associated with weight loss and muscle wasting. The effect of obesity on COPD has not been well-studied. Limited epidemiologic data suggest that overweight or obese status in men may protect them against the risk for developing COPD, as well as mortality from COPD. It should also be pointed out that there is no plausible reason why obesity should protect against mortality in COPD. This phenomenon, well-characterized in other chronic diseases, such as heart failure, is referred to as the "obesity paradox".

Conclusions: Obesity in patients hospitalized for respiratory disease substantially reduces in-hospital mortality risk. More research should be aimed at resolving the obesity paradox. On the other hand, malnutrition is associated with important increased in in-hospital mortality.

V-114
AMYLOIDOSIS IN OUR AREA

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Objectives: To review the cases of amiloidosis in our area and obtain data of clinical presentation, therapy, prognosis and cardiac involvement.

Material and method: Retrospective case series between 1st January 1994 to 1st March 2012, obtained from medical history of biopsy confirmed cases.

Results: We identified 99 patients with mean age at diagnosis 70 years (range 25-84 years), 43 women and 56 men. All patients had biopsy-proven amyloidosis. There were 50 secondary amyloidosis, 41 light-chain amyloidosis, and 8 localized amyloidosis. Inflammatory diseases were presented in 9, blood diseases in 17, solid neoplasia in 5 and infectious diseases in 10. The main clinical manifestations were dysregulation of intestinal habit, heart failure and syncope. The affected systems were: kydney 61 (27 nephrotic syndrome), heart 43, digestive 31, autonomic nervous system 29, skin 8 and lung 1. Troponin I was elevated in 15. ECG was abnormal in 43 (atrial fibrillation or flutter 16, auricular-ventricular block and bundle-branch block auricular 6, pseudoinfarct pattern 8, low voltages 8, repolarization changes 5, and ventricular hypertrophy signs 1). Echocardiographic characteristics: 35 had left ventricular diastolic dysfunction, and 4 systolic dysfunction, ventricular hypertrophy 28, pericardial effusion 14, byrrefingency 16, auricular enlargement 16, valvulopathies 8, and pulmonary hypertension 8. In AL amyloidosis 26 had monoclonal component, 18 IgG subtype, and 22 Lambda light chain. 13 had Bence-Jones proteinuria and 18 renal insufficiency. The preferred sites for biopsy were abdominal fat 45, rectum 14, kidney 17, skin 8, endomiocardial biopsy 2, bladder 2, liver 3, lung 1, bone marrow 7, tongue 1 and necropsy 4. The treatment was in 18 Prednisone and Melphalan, 4 Bortezomib-Dexametsone, 2 Lenalinomide, 1 polychemotherapy and 8 required hemodyalisis. 42 patients had more than 2-years overall survival.

Discussion: Amyloidosis is a protein misfolding disorder in which soluble proteins aggregate as insoluble amyloid fibrils, that cause functional and structural organ damage. The most common form of systemic amyloidosis are light-chain amyloidosis, but it's the reactive AA amyloidosis the mostly detected in our area. Cardiac involvement may occur with or without clinical manifestations, and is considered as a major prognostic factor. There was 50% cardiac involvement found in our patients. The most commonly used treatment was Prednisone-Melphalan.

Conclusions: Patients with unexplained heart failure, hepatomegaly, nephrotic syndrome or peripheral neuropathy, should be evaluated for primary systemic amiloidosis, seeking evidence of a clonal plasma cell disorder with serum and urine immunofixation studies. Diagnosis of amyloidosis should be sought by biopsy of the abdominal fat or an involved organ. Cardiac involvement worsens the prognosis and may influence treatment strategies; therefore, all patients with known amyloidosis should be screened for cardiac amyloidosis even if they have no cardiac symptoms.

V-118
MALIGNANT PLEURAL EFFUSION AS THE FIRST MANIFESTATION OF CANCER

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Objectives: To compare tumor origin, demographic characteristics and survival rate between patients in whom pleural effusions represent the first symptom of cancer (group A) and those with a known cancer who subsequently develop a malignant effusion (group B).

Material and method: Retrospective analysis of all consecutive patients who were diagnosed with MPE in a university hospital (Lleida, Spain) during the 2006-2012 time period.

Results: Of 223 patients included in the study, 149 (67%) belonged to group A, and the remaining 74 to group B (Table). The median age of patients from the respective groups were 73 and 66 years (p = 0.07). The most common tumor origin for group A was lung (50%), whereas breast led group B (39%). Pleural effusion first pointed to the diagnosis of cancer in all mesotheliomas, 90% of lung tumors and > 80% of ovary and unknown primaries. Conversely, in 76% and 60% of effusions associated with breast and gastrointestinal tumors, patients had a previous history of cancer. In group B, the median time from the diagnosis of cancer to MPE development was 6 years for breast and 2 years for gastrointestinal tumors. The median survival was 6 months in both groups.

Discussion: Knowledge of tumor types which manifest primarily as malignant effusions has clinical interest.

Conclusions: MPEs are frequently the first clinical presentation of lung cancer, whereas most breast cancer associated effusions develop after an established diagnosis of the primary tumor.

Table 1. (V-118)

Tumor origin	No. of patients	Group A No (%)	Group B No (5)
Lung	83	75 (90)	8 (10)
Breast	38	9 (24)	29 (76)
Unknown primary	21	17 (81)	4 (19)
Lymphoma	18	11 (61)	7 (39)
Gastrointestinal	15	6 (49)	9 (60)
Others	48	31 (65)	17 (35)
Total	223	149 (67)	74 (33)

V-171
FATTY ACID PROFILE IN ADULT PATIENTS WITH PHENYLKETONURIA: IS THERE A NEED FOR FATTY ACID SUPPLEMENTATION?

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Objectives: The treatment of phenylketonuria (PKU), an inborn error of amino acid metabolism, consists of a dietary phenylalanine restriction together with an amino acid, vitamin and trace-element supplementation. Lifelong exclusion of fish from the diet may lead to a deficiency of essential fatty acids (omega-3- and omega-6 fatty acids) with its negative clinical consequences.

Material and method: 43 adult patients with PKU and 58 controls were included in the study. The serum concentrations of 26 free fatty acids (a short term parameter) and red blood cell membrane lipids (a long term parameter) were analyzed using gas chromatography. 5-day food records were analysed using Freiburg Food Database Program (Nutri Science GmbH 2004). 18 out of 43 PKU patients were receiving a supplementation of unsaturated fatty acid with their phenylalanine-free amino acid formula.

Results: According to the food records the intake of fat and especially saturated fatty acids was significantly lower in PKU-patients in comparison to the control group. In the phenylketonuria group lower blood levels of saturated fatty acids and higher blood levels of monounsaturated fatty acids were found in comparison to the control group. Most importantly, the docosahexaenoic acid (DHA; C22:6n-3) levels were lower in the phenylketonuria patients, although no differences in total omega-3- of omega-6-fatty acids were found between the groups. There was no difference in red blood cell membrane lipid content between the groups. Similarly, no differences were found in the phenylketonuria patients with or without fatty acid supplementation.

Conclusions: The low serum levels of docosahexaenoic acid (DHA; C22:6n-3) suggests an insufficient supply of this fatty acid in phenylketonuria patients. However, this seems to be partially compensated by monounsaturated fatty acids intake. In our study, the additional fatty acid supplementation had no effect on the measured parameters.

V-179
FAMILIAL HYPERCHOLESTEROLEMIA IN A LIPIDS UNIT

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Objectives: To determine the principal characteristics found in patients diagnosed with familial hypercholesterolemia (FH) in the lipids unit.

Material and method: Descriptive study performed in the lipid unit of the University of Salamanca Clinic Hospital, we analyzed 56 patients with a mutation in the gen correspondent of familial hypercholesterolemia. The cases were diagnosed through genetic test called LIPOCHIP, and tested for a three year period.

Results: The most common type of mutation was the change of aminoacids (85.7%) and type of mutation most commonly found for the receptor gene LDL was the M049 (33.9%). The average age for diagnosis was 39 years old.

The distribution of the universe was female 69.6% male 30.4%. The 67.9% of the cases (38 patients) presented a MED PED score over 7. 62% of the patients had LDL levels > 200 mg/dl at the moment of the diagnosis.

Discussion: Familial hypercholesterolemia is an autosomal dominant disorder that causes severe elevations in total cholesterol and low-density lipoprotein cholesterol (LDLc). FH is a disorder of absent or grossly malfunctioning low-density lipoprotein (LDL) receptors. The LDL receptor gene is located on the short arm of chromosome 19; therefore, the inheritance pattern is the same for males and females.

Conclusions: The patients with a higher MED PED score have more probabilities to present a mutation for FH. The c LDL level is the best biochemistry diagnostic marker for familial hypercholesterolemia and has a direct relationship with causal defect. The most commonly affected gen is the gen of the LDL receptor and the most common mutation found was M049. We recommend the application of a lipids unit in the hospitals, this would lead to a premature diagnosis as well optimize the treatment, prevent and delay complications.

V-242
ASSOCIATION OF GENETICS POLYMORPHISMS WITHIN THE ENDOGENOUS OPIOID SYSTEM WITH ALCOHOL DEPENDENCE

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Objectives: Alcohol is the most commonly drug of abuse in Europe. Chronic alcohol consumption is associated with the development of ethanol dependence in some individuals, which is influenced by genetic and environmental factors. The aim of our study was to determine whether the presence of certain polymorphisms within genes encoding receptors of the endogenous opioid system, one of the main systems involved in the neurobiology of addiction, is associated with alcohol dependence.

Material and method: Our study population included 300 patients from the Alcoholism Unit of the Hospital of Salamanca, which consumed more than 120 g of ethanol per day, and 157 healthy volunteers. Among patients, 113 of them had alcohol abuse, and 187 had alcohol dependence by DSM-IV criteria. We obtained DNA from all patients and controls and performed real-time PCR analysis of 10 polymorphisms located in the OPRM1, OPRL1, OPRD1 and OPRK1 genes, which encode the opioid receptors μ1, like 1, δ and k1 respectively. Results were statistically analyzed using the χ^2 test.

Results: Significant differences in genotype distribution of the A118G polymorphism of OPRM1 gene were found between alcoholic patients and controls, and between alcoholics with dependence and controls ($p < 0.05$). Namely, alcoholic patients had a higher frequency of AA genotype when compared to controls. We did not find any significant differences in the other analyzed polymorphisms

Discussion: Endogenous opioid system plays a key role in alcohol addiction, mainly through the activation of the mesolimbic dopamine system, which is a part of the brain reward system and is primarily responsible for the reinforcing properties of drugs of abuse. Genetic variability in this system between individuals, such as the result found in our study, may contribute to increased susceptibility to development of alcohol dependence.

Conclusions: In our study we have found that AA genotype of A118G polymorphism of OPRM1 gene is overrepresented in alcoholic patients with alcohol dependence, which can contribute to the development of this disease.

V-272
CO-RELATION BETWEEN C-REACTIVE PROTEIN/ALBUMIN RATIO AND LENGTH OF STAY FOR ACUTE MEDICAL ADMISSIONS

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Objectives: This paper examines the correlation between the ratio of serum C-reactive protein (CRP) to Albumin (markers of acute and chronic disease) and the length of stay (LOS) in the setting of an adult acute medical admissions unit (MAU).

Material and method: Data was collected prospectively for 497 acute unselected admissions to the MAU of Kettering General Hospital, United Kingdom. Of these, 399 cases were included in the final analysis and 98 cases were omitted as complete data was unavailable. Data was collected over a two week period and the outcome data obtained for all the patients. Using a '10 day' LOS 'cut-off' period, probability density functions were plotted.

Results: The plot below shows the probability density functions of CRP:Albumin ratio for the groups of patients with LOS less than 10 days and also for the patients with length of stay greater than or equal to 10 days.

Conclusions: It is evident the from the plot that the distribution of CRP:Albumin ratio for the patients with longer length of stay shifted to the right compared to the other indicating that patients who stay longer have higher CRP:Albumin ratio. Since the distributions of CRP:Albumin ratio for these two groups are skewed as observed above, a one-sided Wilcoxon rank sum test (also known as Mann-Whitney U test) was performed and a p-value of 0.0000000054 was obtained. This suggests that CRP:Albumin Ratio for the patients with LOS more than/equal to 10 days is significantly greater than that for the patients with LOS less than 10 days.

Table 1 (V-272)

Summary statistics of CRP/Albumin ratio of two groups of patients with different LOS	LOS less than 10 days	LOS more than or equal to 10 days
Number of patients	322	77
Mean	0.97	2.06
Median	0.25	1.03
Standard Deviation	1.78	2.59
Inter-quartile range	0.87	2.66
Minimum	0.08	0.09
Maximum	12.1	11.5

V-275
TWENTY-FIVE YEARS OF IDIOPATHIC CALCIUM NEPHROLITHIASIS: HAS ANYTHING CHANGED?

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Objectives: To assess whether in the last 25 years lifestyle indicators of calcium stone formers in Italy have significantly changed and to establish a possible connection with the diffusion of Internet access in Italy.

Material and method: We examined the database of patients who underwent a complete clinical, dietary and urinary evaluation for new-onset ICN at the Stone Clinic of Parma University Hospital from 1986 to 2010. Patients were split into three groups on a chronological basis: group 1 (from 1986 to 1998, 561 males and 260 females), group 2 (from 1999 to 2004, 297 males and 169 females) and group 3 (from 2005 to 2010, 212 males and 237 females). For each patient, we recorded clinical and lifestyle data (blood pressure, age of onset of nephrolithiasis, number of episodes, physical activity, body weight, water intake) and the values of the basal urinary stone risk profile that had been performed at the time of the first evaluation. This urinary profile includes data on urinary 24-hour volume, sodium, potassium, chloride, calcium, phosphorus, uric acid, magnesium, oxalate, citrate, ammonium, urea, creatinine, pH. The supersaturation of calcium oxalate, calcium phosphate and uric acid was calculated through Equil software. We searched data about the diffusion of Internet connection among Italian families in the EUROSTAT-ISTAT reports.

Results: Over the time, we found a significant increase in water intake, both in males and females, (1.37 vs 1.78 litres in men and 1.21 vs 1.55 litres in women, Group 1 vs Group 3). There was a decrease in urinary sodium, calcium, phosphorus, chloride, magnesium and uric acid and an increase in urinary citrate and oxalate. Also the percentage of hyperoxaluria grew (27% to 34% in men, 10% to 17% in women). These changes were generally greater in females, particularly in urinary sodium (155 vs 140 mEq/day, Group 1 vs Group 3). We also found, both in males and females, a massive decrease in the supersaturation indexes for calcium oxalate (8.61 vs 6.36, Group 1 vs Group 3), calcium phosphate (1.58 vs 1,02, Group 1 vs Group 3) and uric acid (2.79 vs 1.75, Group 1 vs Group 3). The percentage of patients performing physical activity was significantly higher in Group 3 than in Group 1 (41% vs 8%), but mean body weight was substantially stable over time. We also found a significant decrease in mean blood pressure. Internet access among Italian families rose from 1998 (5.2%) to 2004 (31%) and 2010 (53%). At the same time, the seek for medical information on the web also rose (respectively 3%, 22%, 35%), especially among women.

Discussion: Idiopathic calcium nephrolithiasis (ICN) is a high prevalence disease. Its pathogenesis has not been fully understood, but it seems to be strongly related to lifestyle and dietary habits. In the last decades a change in the epidemiology of this disease in industrialized countries has been seen, with a rise of prevalence in women and a slight decrease in men. Our data show that lifestyle of patients with ICN at first episode in our country have changed becoming more adherent to an antilithogenic diet. This changes didn't follow a medical prescription but they were spontaneous: it is conceivable that they are due to a widespread diffusion of internet with related medical information, because a similar trend is detectable in these two phenomenons. Further studies are necessary to assess whether the lyfestile changes will lead to a decrease in stone recurrences.

Conclusions: The lifestyle of Italian idiopathic calcium stone formers have substantially changed over the last 25 years. In

particular, daily water intake significantly increased and salt consumption decreased, with a reduction in the risk for stone recurrence despite on urinary oxalate increase. These favourable habit changes could be in part related to the widespread diffusion of the Internet and to the spontaneous access to medical information that can be found in it.

V-277
INCIDENCE AND RISK PREDICTORS FOR ADVERSE EVENTS IN THE FOLLOW UP OF TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI) FOR THE TREATMENT OF DEGENERATIVE AORTIC VALVE STENOSIS

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Objectives: The main objective of this study is to analyze the incidence and adverse events predictors in our series of patients with severe aortic stenosis in which a transcatheter aortic valve implantation (TAVI) was performed.

Material and method: Patients admitted at our service with severe aortic valve stenosis whom underwent to TAVI with COREVALVE system from December 2007 to April 2012. Statistic analysis was performed with SPSS 19 program: percentages, chi square and Fisher exact test for discrete variables and mean, standard deviation (SD), median (minimum-maximum) for continuous variables.

Results: 116 patients were finally enrolled from December 2007 to April 2012. During the hospitalization period after TAVI, six patients died. Median of follow up was 393 (6-1562) days and mean 509 (SD 432) days. During the follow up period there were 16.6% new admissions for related cardiac causes (one half of them due to cardiac failure), 5,5% cerebrovascular events and 3,7% pacemaker implantations. The mortality rate was 10.9% during the follow up (42% cardiac related causes). Mortality is related to the following variables: previous coronary disease (18.2 vs 61%, p = 0,047), development of complications during the hospitalization period (17.7% vs 2.1%, p = 0.008), previous liver cirrhosis (66% vs 9.3%, p < 0.001), new admissions related to cardiac failure (37.5 vs 8%) and permanent pacemaker implantation (19.4 vs 6.8%, p = 0.05). New admissions because of cardiac failure are related with previous chronic renal failure (28.6 vs 5.3%, p = 0,015). Porcelain aorta was related to positive tendence of cerebrovascular events (25 vs 4%, p = 0,062. No predictors for the needing of permanent pacemaker implantation were found in the follow up.

Discussion: Degenerative aortic valve stenosis is the most frequent valvular heart disease in elderly patients. Transcatheter aortic valve implantation (TAVI) has became an effective and safety alternative option for the treatment of aortic stenosis in patients with high surgical risk. We think the follow up period is enough to support the results we have found. Concordant results with previous studies are shown and some significative determinants have been demonstrated. Low rate of mortality in this high risk sample of patients support the efficacy and security of TAVI.

V-281
REVISITING IN-HOSPITAL MORTALITY PREDICTION UTILITY OF INITIAL LABORATORY EVALUATIONS IN AN ECONOMICAL CONSTRAINED ERA

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Objectives: The Portuguese economic crisis has culminated in the need for external financial assistance from the European Union and the International Monetary Fund (IMF) and has created the necessity for structural reform in the healthcare system, with particular emphasis on the need for a more rational use of services and control of expenditures. In this scenario, doctors seem to be more aware of costs and request cheaper analytical panels. An analysis of current practice in our Hospital revealed that there was a group of laboratory tests that was more frequently requisitioned than others. We aimed to determine the usefulness of the first three sets of laboratory evaluations obtained after admission in predicting mortality in an internal medicine ward of a tertiary hospital in the Lisbon district.

Material and method: All patients admitted to our Department during the first trimester of 2012 and who had at least 3 laboratory evaluations were included in this study. The afore-mentioned set of laboratory tests were made up of: a complete blood count; sodium; potassium; chloride; plasma creatinine; urea and C-reactive protein values – all were used as variables, being categorized according the cut-offs of our hospital. Data was collected from the DRG database of our department and revision of case notes. SATA 11® version was used for the statistical analysis. Contingency tables with Pearson chi-squared (χ^2) tests and pairwise correlations were used to identify variables associated with mortality (yes/no). Pertinent variables with a significant χ^2 statistic were used to build a multivariable logistic regression model for predicting mortality. The final model was evaluated using the area under the ROC curve and the Hosmer and Lemeshow test of goodness-of-fit. Estimated prevalence of the variables and odds ratios (OR) are reported with corresponding 95% confidence intervals (95%CI).

Results: A total of 503 subjects were included, and the majority were male patients (56.5% versus 43.5%). A total of 79 in-hospital deaths (15.7%) were identified during this period. Mortality was significantly ($p < 0.05$) associated with leukocytosis and neutrophilia (1st, 2nd and 3rd evaluations); hypernatremia, hyperkalemia and hyperchloremia (3rd evaluation); urea (3rd evaluation) and C-reactive protein (3rd evaluation). The multivariable logistic regression model only kept leukocytosis, urea and C-reactive protein at the third evaluation. Leukocytosis showed the strongest association, with an adjusted OR of 6.4 (95%CI: 2.4-9.4), followed by elevated urea levels with an OR of 4.78 (95%CI: 1.7-8.4) and finally elevated C-reactive protein (> 3 mg/dl) with an OR of 4.6 (95%CI: 1.8-10.2).

Discussion: We found that mortality was strongly associated with leukocytosis, high urea levels (> 50 mg/dl) and a C-reactive protein higher than 3 mg/dl at the third laboratory evaluation. One possible limitation in our study was the fact that we were blind to the patient's admission diagnosis, socio-demographic characteristics and co-morbidities. However we believe that these factors could never be exhaustively studied and therefore it seems unpractical to build risk factor scales for each admission's diagnosis. C-reactive protein's role on mortality prediction has been clearly demonstrated, however we identified two other variables (leukocytosis and urea level) that might play an important role in the prediction of mortality.

Conclusions: With the financial constraints Portugal is subject to, clinicians need to find ways to treat patients in a clinically sound and cost-effective manner. Laboratory evaluation of inpatients can be costly, therefore cheaper methods for predicting in-hospital mortality are necessary. Our study describes the usefulness of a

cheap set of laboratory tests in predicting mortality in patients admitted to an internal medicine ward. Future studies confirming our findings are warranted.

V-287
UTILITY OF COMPLEMENTARY TESTING IN THE STUDY OF ANEMIA IN HOSPITALIZED PATIENTS

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Objectives: Anemia is a frequent complaint in internal medicine due to the high number of cases in the general population. It is often diagnosed by chance when the patient performs a blood test for another reason. When a patient has anemia various endoscopic and imaging studies are performed in order to obtain a diagnosis. Sometimes these studies routinely apply regardless of the clinical data. This paper analyzes the usefulness of various complementary tests in the study of anemia.

Material and method: Data were collected from all patients in whom anemia was one of the main reasons for joining the Internal Medicine Department in a period of 6 months, from November 1, 2011 to April 30, 2012. Diagnostic tests performed and their usefulness to reach the final diagnosis were evaluated.

Results: We analyzed a total of 96 patients, who underwent abdominal ultrasound in 51 (53.1%), being useful in 12 (23.5%). CT was performed in 28 patients (29.2%) being helpful in reaching a diagnosis in 22 (78.6%). Endoscopic studies (gastroscopy and colonoscopy) were performed in 61 (63.5%) and 49 (51%) being useful in 34 (55.7%) and 27 (55.1%) cases respectively.

Discussion: In our hospital were performed numerous complementary tests. Gastroscopy was the most frequently performed, followed by ultrasound. The most useful was computed tomography. Ultrasound is often one of the initial tests but only in a small percentage of cases it is helpful. Computed tomography was performed more selectively, based on clinical data or findings in other studies, thus being useful in a much larger percentage of cases. The realization of large number of tests increases hospital stay assuming a high health care costs, so that their request should not be done routinely, but supported by data from medical records.

Conclusions: In our hospital were performed numerous complementary tests. Gastroscopy was the most frequently performed, followed by ultrasound. The most useful was computed tomography. Ultrasound is often one of the initial tests but only in a small percentage of cases it is helpful. Computed tomography was performed more selectively, based on clinical data or findings in other studies, thus being useful in a much larger percentage of cases. The realization of large number of tests increases hospital stay assuming a high health care costs, so that their request should not be done routinely, but supported by data from medical records.

V-288
VALPROIC ACID AND MEROPENEM INTERACTION: A RETROSPECTIVE STUDY

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Objectives: Interaction between valproic acid (VPA) and meropenem, resulting in a 60-100% drop in the VPA serum concentration in the first 24-48h, has been described in some published data. However, few is known about this interaction and its clinical repercussion. In fact, there is no guidance towards the proper clinical attitude. The aim of this study is to analyze this interaction and its clinical repercussion in hospitalized patients. Primary end points were to determine the percentage of patients that had a significant drop of VPA levels, to analyze the significance of that drop and its clinical repercussion.

Material and method: In a retrospective study of the population admitted in a local hospital in a year period, the authors analyzed the patients who were treated concomitantly with VPA and meropenem, in a total of 40 patients with 47 episodes. The inclusion criterion was the existence of at least one determination of VPA serum concentration in the week before the meropenem prescription and another during the concomitant treatment. A total of 18 patients with 18 episodes met this criterion. All of the patients were previously medicated with VPA. The considered VPA serum concentration value during concomitant treatment was the lowest one. The authors performed a statistical analysis of the 18 episodes using the Wilcoxon test.

Results: The studied group included 88.8% males and the median age was 67 years. The authors found that VPA serum concentration decreased in 100% of the analyzed patients. Only in one patient, despite of decreasing, VPA serum concentration remained in the therapeutic range. The mean value of VPA serum concentration before the prescription of meropenem was 59.6 µg/mL and during the concomitant treatment was 9.9 µg/mL, which represent a significant decrease of 83.3% ($p < 0.001$). The lowest value of VPA serum concentration during the concomitant treatment was 0.3 µg/mL. Epileptic seizures were observed in some patients. There were 2 patients that despite having 2 VPA serum concentration levels accessed were not included in the statistical analysis. The first one had no VPA levels accessed during the concomitant treatment (25.2 µg/mL before and 5.5 µg/mL three days after stopping meropenem) and the second one had no previous value of VPA serum concentration (1.9 µg/mL during the concomitant treatment and 85,6 µg/mL twelve days after stopping meropenem).

Discussion: The authors found a statistically significant drop in VPA serum concentration, consistent with the literature. Unfortunately, only 38,3% of the 47 analyzed episodes had at least 2 VPA serum concentration determinations, conditioning the conclusions of the present study. In addition, the paucity of VPA levels accessed in the first 24-48 h and after stopping the meropenem prescription did not allow the authors to compare their results to what is found in the literature. Considering the 2 episodes that were not included in the statistical analysis the authors believe that they corroborate the presented results, as the decrease of VPA levels found in the first case represents a drop of 78% even after 3 days without meropenem administration, and in the second case represents a significant increase in VPA serum concentration after stopping meropenem.

Conclusions: According to our results and to the reviewed literature we consider that the concomitant use of both drugs should be avoided. Despite this known interaction, no guidelines are available for patients who were previously medicated with VPA and require treatment with meropenem. It is mandatory to sensitize the medical community for the danger of this interaction and that some guidance is supported to the clinicians in order to prevent clinical repercussions such as epileptic seizures.

V-289
FAMILIAR AMYLOID POLYNEUROPATHY (FAP): EVALUATION OF TREATMENT IN A SERIES OF 5 CASES

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Objectives: FAP is a systemic hereditary amyloidosis associated with mutation of transthyretin gene on chromosome 18 (Val30Met mutation), producing a mutant precursor protein which deposits itself on different tissues. This primarily affects the peripheral sensory, motor and autonomic nervous system. The only proven treatment is etiopathogenic (liver transplant). Our objective is to evaluate the evolution of the 5 patients according to the different treatment administered.

Material and method: Descriptive study of 5 patients diagnosed with FAP evaluating the treatment administered (etiopathogenic vs symptomatic) and the patients clinical outcome.

Results: Case 1. Male 73 yo, from Mallorca. Family History of FAP: 4 members (heterozygotic). Diagnosed in 2007 (heterozygote), the symptoms began 3 years earlier with paresthesias. Due to the patient's characteristics symptomatic treatment was decided. Last check up: increased paresthesias, severe muscular atrophy, weight loss, chronic diarrhea, orthostatic hypotension. Blood tests revealed hypoproteinemia and hypercholesterolemia. Echocardiogram (ECHO) revealed severe left ventricle (LV) hypertrophy with preserved ventricular function. Case 3. Male 40 yo, from Mallorca. FH: 2 members affected. Diagnosed in 2005 (heterozygote), the symptoms began 2 years earlier with diarrhea, erectile dysfunction and paresthesias. EMG findings compatible with FAP. ECHO: mitral and tricuspid insufficiency. No proteinurea. The patient received a liver transplant and prophylactic implantation of a pacemaker in 2006. Last check up: Glaucoma in left eye, remission of diarrheas, slight improvement of paresthesias, severe muscular atrophy and persistence of weakness of lower extremities and erectile dysfunction. Blood tests revealed normal blood protein, albumin and cholesterol levels. Objective and subjective clinical improvement. Case 4. Male 28 yo, from Mallorca. FH: 2 members. Diagnosed in 2008 (heterozygote), the symptoms began 2 years earlier with paresthesias in lower limbs, weight loss, erectile dysfunction and alternating diarrhea and constipation. EMG findings were compatible with FAP. ECHO: no anomalies. No proteinuria. The patient received a liver transplant and prophylactic pacemaker in 2009. Last check up: foot ulcer, persistence of paresthesias, persistence of diarrheas and erectile dysfunction. Orthostatic hypotension. No improvement after treatment. Case 5. Male 65 yo, from Mallorca. FH: 2 members (heterozygote). Diagnosed in 2006 (heterozygote), the symptoms began 18 months earlier with hypoesthesias, weight loss, severe muscular atrophy, difficulty to walk ECHO: LV hypertrophy and aortic insufficiency. No proteinuria. Not eligible for transplant; symptomatic treatment modality was indicated. Clinical evolution: difficulty to walk, weight loss, chronic diarrhea, depressive syndrome with autolytic intent. The patient died in 2009 due to FAP.

Discussion: FAP is a progressive and irreversible whose only current known treatment is etiopathogenic. Diagnosis is usually late. In our series 3 of the patients were not eligible for transplant and treated symptomatically. All showed disease progression; one of the patients died due to FAP. Two patients received liver transplants, one of them showed mild improvement; the other has shown progression of the disease without improvement.

Conclusions: FAP is a rare disease. Epidemiologically, Mallorca is the fifth in the world. The only effective treatment known at the moment is etiopathogenic, if possible performed within the first year of diagnosis. In those cases where etiopathogenic treatment is not possible, symptomatic treatment should be given.

V-292
ARE THE NEW SCALES OF RISK STRATIFICATION REALLY USEFUL FOR PREVENTION OF STROKE OR HAEMORRAGIC COMPLICATIONS IN ATRIAL FIBRILATION?

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Objectives: The aim of the study was to evaluate the impact of risk stratification and oral anticoagulant treatment according to the new recommendations of the ESC in the development of both, thromboembolic and bleeding events in patients with atrial fibrillation during one year follow-up.

Material and method: We performed a prospective observational study. The subjects were all patients diagnosed of atrial fibrillation (AF) who were discharged of the emergency room of the Clinic University Hospital of Zaragoza, between 01-03-2010 and 01-01-2011. All patients with a previous diagnosis of paroxysmal, persistent or permanent AF or those who developed new onset, were enrolled. We recorded clinical, demographic characteristics, oral anticoagulant therapy and the CHA2DS2vasc and HASBLED risk scores were performed. During one year follow-up the thromboembolic (TIA or Stroke) and haemorragic events registered in medical record were documented. The major bleeding was defined by Gusto's criteria or haemorragic stroke. The INR at the moment of the event was recorded too. Data were recorded in an SPSS 15.0 database. Comparisons were carried out by means, a chi square test and Fischer´s exact test when appropriate. Logistic regression was performed to determine independent predictor of tromboembolic and haemorragic events. For all tests, a P value < 0.05 was considered statistically significant.

Results: We included 364 patients, 54.7% women (199) and 45.3% men (165). 15 patients (4.1%) were < 45 years old, 55 (15.1%) 45-60 years old, 123 (33.8%) 60-75 years old and 171(47%) > 75 years old. 69.2% (252 patients) had a CHA2DS2Vasc score ≥ 2,28.3% (103 patients) had a score of 0, while the 2.5% (9 patients) had a score of 1. On the other hand, 50 patients (13.7%) had a high haemorragic risk by HASBLED score, while 314 (86.3%) had low haemorragic risk. 99 patients (27.2%) had a low risk for both, 206 patients (56.6%) had high thromboembolic risk and low haemorragic risk and 46 patients (12.6%) had a high risk for both. Thromboembolic complications occurred in 4.4% (16 patients), while haemorragic were observed in 2.2% (8 patients) In the group of high thromboembolic risk the 60.3% were discharged with OAC, whit an incidence of stroke/TIA in 9% (9 patients) in the group who were not anticoagulated, compared to 2% (3 patients) who received OAC, this being a statistically significant difference (p = 0.014). Notably, none of the 3 patients that received OAC were in therapeutic range. In the high thromboembolic risk group and low haemorragic risk, 8 cases (3.8%) a thromboembolic complications were found, all cases outside range of INR. With regard to haemorragic risk stratification, we observed that all patients who had a haemorragic event were classified as low risk (HASBLED score). The incidence of haemorragic complications in the OAC group was 3.1% vs 1.2% in the non OAC group, but this difference did not reach statistical significance (p = 0.59). We performed logistic regression for isquemic events, and the only factor that made up the CHA2DS2VASc score that reached statistical signification, was a history of stroke, perhaps due to the small size sample.

Conclusions: Most of they were stratificated into high thromboembolic risk group, by CHA2DS2Vasc score who must receive OAC according to the new ESC guidelines. All the isquemic events that were found during follow-up were presented in the non anticoagulation group or those with INR outside the therapeutic

range. We consider that the OAC in the therapeutic range is one of the major factors for the prevention of stroke/TIA in AF. The stratification of haemorragic risk through the HASBLED score was not able to distinguish which patients had bleeding complications, probably due to the small size of sample.

V-294
POISONING AND DRUG OVERDOSE IN A INTERNAL MEDICINE DEPARTMENT

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Objectives: Accidental and intentional poisonings or drug overdoses constitute a significant source of aggregate morbidity, mortality, and health care expenditure. Although the true incidence is unknown due to underdiagnosis and underreporting. A brief initial screening examination should be performed on all patients to identify immediate measures required to stabilize and prevent deterioration of the patient. Our purpose was studied the epidemiological and clinical variables in patients with poisoning or drug overdose admitted in general hospital.

Material and method: Prospective study of 35 patients with poisoning or drug overdose admitted of Torrecárdenas Hospital from January 2010 until December 2011. We analyzed: age, sex, days in hospital, intensive care unit (ICU) stay and comorbidity. The data were analyzed by using SPSS 18.0 statistical package.

Results: The following variables were studied: age 45 ± 13 years, sex 13 males (37.15%)/22 females (68.85%). The average hospital stay was 8 days. 6 patients required ICU admission (17.14%). 6 patients had a history of psychiatric illness (17.14%) and 25 patients had multiple comorbidities (71.42%). 0 patients died. We analyzed the source of: Overdose drug type: digitalis intoxication in 22 patients (62.85%), methadone in 1 patient, valproic acid intoxication in 1 patient, carbamazepine toxicity 1 patients, paracetamol 2 patients, lithium 2 patients and tricyclic antidepressant 1 patients--poisoning cases: organophosphate 1 patients, cocaine 2 patients and boric acid 1 patients. Analyzing therapeutic families at hospital discharge: > 5 drug in 27 patients (77.14%) and < 5 drug in 8 patients (22.86%).

Conclusions: Accidental and intentional poisonings or drug overdoses are unusual diseases but very serious. In our study we found that patients were young and high comorbility.

V-296
NONINVASIVE EVALUATION OF PULMONARY HEMODINAMICS IN PATIENTS WITH CIRRHOSIS AND PULMONARY HYPERTENSION

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Objectives: We thought to test whether we can do a noninvasive assessment of pulmonary hemodynamics in patients with chronic liver disease and pulmonary hypertension (PHT).

Material and method: From 347 patients with cirrhosis we selected 116 patients with cirrhosis and portal hypertension; we evaluated these patients by clinical examination, laboratory tests, abdominal ultrasound and echocardiography. We assessed pulmonary pressure by Doppler echocardiography, measuring pulmonary artery systolic pressure (PASP) and acceleration time (AT). We considered PHT when PASP > 35 mmHg and/or AT < 100 ms. Then we tried to evaluate the high flow state and pulmonary vascular resistance (PVR) by duplex echocardiography (2D and Doppler). The right atrial volume (RAV) index, cardiac index (CI) and assessment of inferior vena cava (IVC) and right atrial pressure (RAP) were used to define the high flow states, and ratio of peak tricuspid regurgitant velocity (TRV) to right ventricular outflow tract velocity time integral (VTIRVOT) to detect increased PVR (TRV/ VTIRVOT > 0.2). We evaluated pulmonary capilary wedge pressure (PCWP) indirectly, by left atrial diameter divided at body surface (left atrial diameter index – LAd index). There was also a control group for establish cut-off values for RAV index (32 ml/m^2), CI (2.3 L/min/m^2) and LAd index (2 cm/m^2).

Results: 27 patients (23%) had PHT. Most of them had a high flow state (19 pts, 70%), mostly by increased venous return with elevated RAP (16 pts, 84%); 1 patient had increased PVR, probably portopulmonary hypertension; 2 patients had elevated PCWP (LAd index > 2 cm/m^2). The results were missing at 2 patients because of bad image quality. There were 3 patients who had suboptimal Doppler tricuspid regurgitation signals. Echocardiography failed to characterize pulmonary hemodinamics in 5 patients with PHT (18.5%).

Discussion: Approximately 20% of cirrhotic patients develop pulmonary hypertension (PHT). In most cases the cause is hyperdinamic state which accompaniates portal hypertension; it is characterized by an increased venous return and high cardiac output. PHT in the setting of excess central volume is reflected by increased PCWP. Portopulmonary hypertension, which has as hemodinamic marker a high PVR, is a very rare condition with a negative prognostic impact and an important predictor of hemodynamic instability after orthotopic liver transplantation. The characterisation of pulmonary hemodinamics and the diagnosis of portopulmonary hypertension are made invasively by right heart catheterisation. But there were some studies which demonstrated a good correlation between invasive PVR measurement and TRV/ VTIRVOT ratio measured by Doppler echocardiography. Practically, all parameters which define pulmonary hemodinamics in these patients can be assessed directly or indirectly by echocardiography.

Conclusions: Pulmonary hemodinamics can be evaluated in majority of patients with PHT by echocardiography (81,5%). Most cases of PHT in patients with cirrhosis and portal hypertension is caused by hyperdinamic circulation, which is best evaluated by assessment of inferior vena cava. We can improve echocardiographic performance by using agitated saline to increase suboptimal Doppler tricuspid regurgitation signals and/or improving the image quality.

V-297
TAKAYASU'S ARTERITIS IN A THIRD LEVEL HOSPITAL

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Objectives: Takayasu's arteritis is a granulomatous vasculitis of a unknown etiology that affects the aorta, its major branches and the pulmonary arteries. The aim of our study is to analyze cases of Takayasu's arteritis diagnosed in our hospital and compare our patients with those of the literature.

Material and method: We reviewed all cases of Takayasu's arteritis diagnosed in a third level hospital in Spain from 1995 on. All patients fullfiled at least three out of the six criteria of the American College of Reumatology (ACR) for Takayasu's arteritis established in 1990. We analyzed age at diagnosis, nationality, symptoms at diagnosis, physical findings, laboratory and imaging studies, medical treatment, revascularization need and afterwards evolution, and compared all these data with those of the literature.

Results: Eleven patients were identified of which five were men and six women. The mean age at presentation was thirty-five years old (range from 18 to 54 years old). All of them were Caucasian. Only one patient had general syndrome at diagnosis. Hypertension was the most common presentation (82%) and was consequence of renal artery stenosis. Cerebrovascular symptoms were recorded in 27% and visual disorders in 36.6%. Most of the patients presented abdominal bruit (63%). Abdominal aorta and its branches were compromised in 82%. Elevated erythrocyte sedimentation rate (ESR) was reported in 6 patients. Stenotic affection was noted in six patients. Sixty-four percent required steroids at diagnosis, two of them required mycophenolate mofetil and metotrexate sequentially. In their evolution seven patients required percutaneous angioplasty. Stent implantation was performed in four cases. Two patients needed a surgical procedure. It was recorded one death attributed to tumoral disease.

Discussion: The mean age at diagnosis of our patients was similar to the previously published, not the sex, which showed a ratio (6:5) for females. As the sample was limited to European population our results could not reflect the higher incidence in Asians. General Syndrome led to diagnosis in 50% of the cases reported in literature, not in our series, in wich the main manifestations focused on cardiovascular and neurological affectation. Sixty per cent had abdominal bruit and claudication in limbs with ESR elevation similar to published. The most common treatment was steroids in the early stages of disease activity, 18% of them needed to add other drugs such as immunosuppressants to slow down the progression. Interventional procedures were followed in 63.3% of the patients. Eighteen per cent of the patients required bypass.

Conclusions: The natural history and prognosis of Takayasu's arteritis still remain poorly defined. Most cohorts are limited to Asian populations. Larger series with Caucasian patients are needed to define the course and evolution of the disease in those cases.

V-298
ACUTE CORONARY SYNDROMES: BLEEDING COMPLICATIONS, PREDICTORS AND LONG-TERM PROGNOSIS

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Objectives: The most aggressive treatments have improved the prognosis of Patients (P) with acute coronary syndrome (ACS), but these treatments can also increase bleeding risk and reduce all the benefit. Our aim is to evaluate which factors can predict an increase of bleeding risk in patients with ACS and percutaneous coronary intervention (PCI).

Material and method: Prospective study of P with ASC who were treated with PCI and followed for a year. We study their basal characteristics, pharmacological treatment, technical characteristic of the PCI and the appearance of major adverse cardiac events (MACE). It is defined like death, myocardial infarction (MI), stroke, stent thrombosis or need to urgent revascularization. Bleeding complications were defined with ACUITY and GUSTO definitions.

Results: 351 P with a mean age of 65 ± 12 years (83.3% male). There were raised prevalence of cardiovascular risk's markers (31% diabetes mellitus) and treated with PCI (58% urgent). 97% of the P were treated with aspirin and clopidogrel, 18% with enoxaparin and 3% with tirofiban previously to PCI. During the PCI we used unfractionated heparin in 87%, abciximab in 29% and bivalirudin in 26%. Transradial access was used in the most interventions (87%). 6.2% MACE, 15% minor ACUITY hemorrhagic, 15% major ACUITY hemorrhagic, 0.9% minor GUSTO hemorrhagic and 1% major GUSTO hemorrhagic were registered. The age > 75 years old (25.3% vs 10.9%, p = 0.001), femoral access (30.2% vs 13.2%, p = 0.04) and weight < 65 Kg (30.3% vs 13.8%, p = 0.01) associated significantly with major ACUITY bleeding. The previous predictors and the use of abciximab (3.4% vs 0.4%, p = 0.02) associated significantly with GUSTO bleeding. There were no association between MACE and bleeding.

Conclusions: In our cohort with important use of transradial access and early pharmacological and invasive strategy is associated to good evolution in spite of high incidence of bleeding. The elderly and femoral access are bleeding predictors and we need to be more careful with that P.

V-304
CAUSES OF ADMISSION IN INTERNAL MEDICINE AT MOSTLY ELDERLY PATIENTS. A COOPERATIVE MULTICENTER STUDY

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Objectives: Knowing the most common diseases suffered by patients admitted in internal medicine from Spanish hospitals.

Material and method: It is a part of a transversal multicenter cooperative study case-control of the GTO-SEMI, in which the cases are patients admitted for hip fracture and controls, patients of the same age, admitted to internal medicine without hip fracture. In this study involving 16 Spanish hospitals. It is a descriptive analysis of the causes of admission in internal medicine mostly elderly patients, a group comparable in age and sex with the group of patients with hip fracture.

Results: 381 patients took part into this study, 287 were women (75.4%) and 94 men (24.6%), with a median age of 82 years [IR: 77-87]. There was a predominance of cardiovascular diseases, 125 patients (32.8%) within this etiology most patients corresponded to episodes of decompensated heart failure (93), followed by episodes of ischemic heart disease (15), cardiac arrhythmias (14) and other cardiovascular diseases (3). The second group are the respiratory diseases, found in 113 patients (29.65%), with a predominance of respiratory infections (56), followed by episodes of respiratory failure (36), COPD (13), bronchial asthma (5) and finally other respiratory diseases (3). The third group refers to the infectious diseases not included in other etiologic groups, occurring in 61 patients (16.01%) within this group includes urinary tract infections (36), followed by acute gastroenteritis and fever syndromes not filiated with 8 episodes each one, infected ulcers (4), cellulitis (3) and endocarditis (2). Disorders of the gastrointestinal system are the following etiologic group with a total of 47 patients (12.33%), in which the largest number corresponds to gastrointestinal bleeding (13), followed by diseases related to bile duct (9), pancreatitis (5), decompensated cirrhotic (5), jaundice to study (4), ischemic colitis (3), episodes of partial bowel obstruction (3) and other gastrointestinal diseases (5). The neurological etiology is the fifth group, occurring in 23 patients

(6.03%), with a predominance of cerebral strokes (15 ischemic and 1 hemorrhagic), seizures (2) and other neurological diseases (5). Haematological abnormalities are due the following entry, which occurs in 21 patients (5.51%), the main one is the anemia study (19). In 14 patients (3.67%) the cause of admission was a deterioration of renal function. Other causes of admission were constitutional syndrome in 10 patients (2.62%), delirium in 7 cases (1.83%), electrolyte disturbances in 6 patients –hyponatremia, 5, and hyperkalemia, 1- (1.57%) and hyperglycemia and thromboembolic diseases in 4 cases (1.04%). The presence of nonspecific pain and skin lesions occurred in 3 patients (0.78%). Systemic disease, syncope and drug toxicity occurred in 2 patients in each group (0.52%). Finally there were a number of other diseases that occurred in 9 patients (2.36%).

Conclusions: Once ended our study we have noticed that there is a predominance of women over men with a 3:1 ratio. The main cause of hospitalization of patients in internal medicine is the cardiovascular disease, predominantly episodes of decompensated heart failure. In second place are respiratory problems and infections. Draws attention to the small number of thromboembolic events, taking into account the epidemiological characteristics of our patients.

V-305
PERCUTANEOUS CORONARY INTERVENTION FOR UNPROTECTED LEFT MAIN CORONARY ARTERY DISEASE: A COMPARISON BETWEEN IN-HOSPITAL MORTALITY PREDICTED USING LOGISTIC EUROSCORE AND OBSERVED

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Objectives: Left Main Coronary Artery (LMCA) is a unique clinical condition and the predictive value of the risk scores in such patients is not necessarily as good as in more general population of cardiac patients. Our aim was to compare risk predicted using logistic EUROSCORE and actual outcomes in patients with left main coronary artery disease undergoing percutaneous coronary intervention with stent implantation (PCI).

Material and method: From 2005 to 2011, we studied prospectively 69 patients with severe unprotected LMCA disease that were not considered to be candidates for coronary artery bypass grafting (CABG) due to high surgical risk, poor distal beds or need for urgent revascularization who were undergoing PCI. We established two levels of surgical risk according to logistic EuroSCORE (≥ 15 (high risk) or < 15) and we studied the clinical and angiographic characteristics of the patients. We compared in-hospital mortality in each group using Chi-square test.

Results: We performed PCI in 69 patients (72.5% male) with a mean age of 72 years (38-88) and a mean logistic EuroSCORE 14.40 (2-50). Among baseline characteristics, 76.8% had hypertension, 39% diabetes mellitus and 7% showed at least moderate renal insufficiency (two patients on hemodialysis). The mean left ventricular ejection fraction of the group was 48% (20-70%) and in 69.6% of the patients the predominant location of the injury was the distal portion affecting the bifurcation while the rest were ostial or body lesions. Drug-eluting stents were implanted in 66 cases (95.7%) and we used support with intra-aortic balloon counter-pulsation in 15 cases (21.7%). 27 cases (39.1%) were urgent revascularizations. The procedure was successful in 66 (95.7%). We registered 6 in-hospital deaths (8.7%). 5 deaths occurred among patients undergoing urgent PCI compared with 1 death in patients in which PCI was elective (18.5% vs 2.4%; p = 0.033). In 28 cases (40.5%) logistic EuroSCORE was ≥ 15 and in 41 patients (59.5%) was < 15. The mean score of the first group was 25.36 (95%CI, 21.57 to 29.14) while in the second group it was 7.27 (95%CI, 6.17 to 8.36). The first group had 5 events (18.5%) while the second group had only 1 (2.4%) and this difference was statistically significant (p = 0.037). The mean score among patients who died was 31.17 ± 14.6 while the mean score among survivors was 13.03 ± 9.5 (p = 0.028).

Conclusions: The logistic EuroSCORE calculated in patients with LMCA disease is associated with in-hospital mortality after PCI. In our study, a logistic EuroSCORE ≥ 15 predicts significantly high mortality. On the other hand, in our series the real mortality of PCI is lower than estimated surgical mortality using logistic EuroSCORE.

V-306
TRANSRADIAL CARDIAC CATHETERIZATION IN PATIENTS CHRONICALLY ANTICOAGULATED: A NEW SAFE AND EFFECTIVE INTERVENTION

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Objectives: Cardiac catheterization in chronically anticoagulated patients is performed after the anticoagulation has been withdrawn at least 48 to 72 hours before and in some selected patients, heparin is added to the treatment. The efficacy and safety of cardiac catheterization without removal of anticoagulation is not well known. Our aim was to asses this controversy.

Material and method: Prospective study of a population of 199 patients (P) undergoing elective transradial cardiac catheterization in which 30 P were chronically anticoagulated (Group A) and were compared with another contemporary group of 169 patients without anticoagulation therapy (Group B). The protocol of bandaging and time of compression was similar in both groups (hemostatic band for elastic compression during 2 hours). We assessed the development of complications after the removal of bandage while patients were still in laboratory and in the first 24 hours. Radial permeability was assessed by plethysmography and hematomas were defined in two categories: mild (5-10 cm) or severe (> 10 cm).

Results: Patients in Group A were older than those in Group B (72 ± 8 vs 65 ± 11 years old; p = 0.01). The most common cause of anticoagulation was atrial fibrillation (60%) and the mean International normalized ratio (INR) at the time of the procedure was 2.28 ± 0.4 (3.6% INR > 3.5). There was no difference in duration of procedure between both groups. All procedures were performed by transradial access without crossover to femoral access. When the bandages were removed, there was bleeding in 1.8% of Group B who required new compression compared with 0% in Group A (p > 0.05). There was no occlusion of the artery used in any group. In Group A we registered 10% of mild hematomas compared with 7.1% in Group B, without a significantly statistic difference. In the first 24 hours, no patient developed radial occlusion or bleeding and only 2.4% of patients of Group B developed a new hematoma compared with any hematoma in Group A (p > 0.05). None of the early or late hematomas call for any additional attitude or had clinical significance.

Conclusions: A quick radial compression protocol without removal of the oral chronic anticoagulation is safe in patients chronically anticoagulated avoiding the potential complications that may arise after the withdrawal of this medication.

V-309
ANALYSIS OF EARLY READMISSIONS AFTER DISCHARGE FROM AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To analyze the population of patients readmitted to an Internal Medicine Service (IMS) and identify the predictors for readmission. In a first phase of our study, the results of which we present, we studied the characteristics of patients readmitted within the first 30 days following discharge from the service in 2011.

Material and method: We analyzed data obtained by the Admissions Service, from the CMBD database, including dates of admission and discharge from the hospital both in the first admission and in the readmission, principal diagnosis, agreement between both diagnosis, length of stay, mean time to readmission, mortality and comorbidity using the Charlson index adjusted for age.

Results: We analyzed 487 episodes of readmission after discharge from the IMS during 2011. In the study period, 4292 patients were discharged, 16.1% of whom were readmitted within the next 30 days. The median age of patients was 78.3 years with a median of 82 years, 47.8% were males, 82% were over 70 years and 60% were over 80 years. Most patients were readmitted to the S. Internal Medicine (409 patients, 83.9%), 54 patients (11%) were admitted to other medical services and 23 patients (4.7%) to various surgical departments. The mortality of patients readmitted was 20.1% (98 patients), well above the overall mortality of patients admitted to IMS during the same period (12.1%). The main diagnoses at discharge were: pneumonia (30.3%), heart failure (21.5%), urinary tract infection (UTI)) (6%), cirrhosis and its complications (3%)), exacerbation of COPD (2.26%) and acute renal failure (1.4%). Similarly for the readmission the principal diagnoses were: pneumonia (33.6), heart failure (18.4%), UTI (4.1%), cirrhosis and its complications (3.2%), exacerbation of COPD (3, 2%), acute coronary syndrome (2.05%) and pseudomembranous colitis (1.2%). The diagnosis was coincident in 272 patients (56%). No significant differences in mortality were found between the groups of patients with or without the same diagnosis at each admission. There were no differences in length of stay in both groups (average 8.85 and 9, respectively), and it was also similar to the average hospital stay of patients admitted to the SMI during 2011 (8.37). The average time to readmission was 13.5 days. 51 patients (10.4%) were readmitted within 3 days and 120 (24.6% within 7 days. We did not find differences in main diagnosis or mortality. Our patients had an average comorbidity, measured by the Charlson index of 3.31 and 6.75 when it was adjusted for age. A high comorbidity (Charlson index equal or greater than 3) was found in 306 patients (62.8%).

Discussion: Unscheduled readmissions to the hospital are regarded with increasing interest as an indicator of quality of medical care. Furthermore, its reduction could lead to a significant decrease in health spending, however we do not know what percentage of these readmissions are avoidable and which factors can predict readmission. At this first stage in which we describe the population of readmissions, it is remarkable both the high concordance between the primary diagnoses in both admissions (initial and readmission) as the increased mortality of patients readmitted.

Conclusions: 16.1% of patients discharged from our Department of Internal Medicine were readmitted during the following 30 days. The median age and comorbidity (62.8% with a Charlson index of 3 or greater) in our readmitted patients is high. We found coincidence in the principal diagnoses in up to 56% of patients. Readmission appears to confer a higher risk of mortality.

V-310
USE INAPPROPIATE URINARY CATHETER INPATIENT OF INTERNAL MEDICINE DEPARTMENT

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Objectives: Describe the indications urinary catheter use inpatient of Internal Medicine Department (IMD) in the Costa del Sol Hospital, Marbella, Spain.

Material and method: A prospective analysis of patient admission in the (IMD) with urinary catheter between 1st april and 30th april of 2012 with a daily monitoring. We study comorbilities of these patients, use appropriate or not urinary catheter.

Results: 98 patients were analyzed. Mean age was 76 years and 56.1% was women. The average stay was 13.86 days and the mortality was 21.4%. Comorbilities were: 44.9% diabetes mellitus, 29.6% kidney failure (27.6% between 3 and 4 stages) and 10.2% immunosuppression. The mean Barthel index was 33 points (25% of patients had a total dependence). Main diagnoses at discharge were: 26.5% heart failure, 13.2% pneumoniae, 10.2% stroke and 10.2% sepsis. Indications use of urinary catheters were: 63% control of diuresis in patients with unstable, 8.2% neurogenic bladder, 7.1% urinary retention, 7.1 urinary incontinence in patients with sacral ulcers by pressure. 10% indicated no use of catheterization. Placement of the catheter was 78.6% of cases in the Emergency. The most frequent complication was urinary retention with 5% and need for re-catheterization and 13.3% of patients required catheterization at discharge.

Discussion: The urinary catheter is a technique not without complications. The catheter associated urinary tract infection is the most common problem is one of the leading causes of nosocomial infection in hospitals. Several studies promote the proper use of this technique to prevent these complications.

Conclusions: 1. Patients admitted to internal medicine requiring urinary catheter have a longer hospital stay, with a greater dependence and increased mortality. 2. The most frequent indication in the use of catheterization was the control of diuresis in the unstable patient. 3. In a high percentage of bladder catheterization was not indicated. 4. The most common complication was urinary retention requiring re-catheterization in a high number of patients at discharge.

V-312
OBESITY PARADOX IN ALCOHOLISM

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Objectives: Alcoholism leads to malnutrition and is related to impaired survival. Recently, it has been observed that obesity, in aged and chronic patients is related to a better survival. This is named obesity paradox. Obesity paradox has been scarcely studied in alcoholism and liver cirrhosis. The objective of our study is to analyze if overweight (BMI 25-30 kg/m^2) and obesity (BMI > 30 kg/m^2) or fat excess is associated to a better survival in alcoholics with and without liver cirrhosis.

Material and method: We included 342 male alcoholic patients, all of them drinkers of 80 or more g ethanol/day, mean age of 51

± 0.7 years, admitted to the internal medicine unit of the Hospital Universitario de Canarias. We assessed the nutritional status by BMI, mid arm anthropometry (mid arm circumference (MAC), mid arm muscle area (MAMA) and triceps skinfold (TSF)), total body dual energy X-ray absorptiometry (DEXA) assessing lean and fat mass, subjective assessment and hand grip. We separated alcoholics without liver cirrhosis, 63%, from cirrhotic ones, 37%. Survival was analyzed according to in hospital mortality, 22%.

Results: Hospital mortality was related to a bad nutritional status. An impaired subjective assessment was associated to a mortality of 36% (p = 0.009). Alcoholics with impaired feeding habits show a mortality of 34% versus 13% in those with normal nutritional habits (p = 0.012); alcoholics with a BMI < 20 kg/m^2 show a mortality of 24% whereas in those with a BMI > 30 kg/m^2 was 14% (p = 0.049). Alcoholics with a MAMA under the 10th normal percentile show a mortality of 33.3% (p = 0.002) and with a lean arm mass (DEXA) under the 10th percentile show a mortality of 28% (p = 0.01), whereas a low fat mass assessed by DEXA or by mid arm anthropometry was not related to mortality. Overweight and obesity were not only related with lower mortality, but also with a better nutritional status: better feeding habits, lesser weight loss, and higher lean mass with better hand grip.

Discussion: Our results shown a lower mortality in patients with overweight and obesity. Moreover, overweight and obesity were related not only with high fat mass but also with a better nutritional status with higher lean mass and better muscle function assessed by hand grip.

Conclusions: These results support the obesity paradox hypothesis with better survival in overweight and obese patients.

V-319
INFLUENCE OF ACUTE PORPHYRIA'S ACTIVITY ON SUBCLINICAL RENAL DISFUNCTION

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Objectives: The porphyrias are metabolic disorders, each resulting from the deficiency of a specific enzyme in the heme biosynthetic pathway. These enzyme deficiencies are inherited as autosomal dominant in acute porphyrias. Although there is small evidence, the long-term risk of chronic renal disease is increased in these diseases. The objective of this study was to describe in a cohort of patients with acute porphyrias the prevalence of renal disfunction and of several cardiovascular risk factors, and to analyze the association between renal disfunction and the activity of the disease.

Material and method: We conducted a transversal analysis of a cohort of 30 patients with acute porphyrias: acute intermittent porphyria (AIP), hereditary coproporphyria (HCP) and variegate porphyria (VP) in an Internal Medicine Department of the Virgen del Rocío Hospital in Spain. We analyzed several epidemiological, clinical and biological variables to value the activity of the disease, like ALA and PBG urinary levels, the number of acute attacks suffered, the need of treatment with hematin, as well as the evaluation of renal function (calculating the glomerular filtration rate using a Modification of Diet in Renal Disease formula: MDRD) and arterial pressure, glycemia and plasmatic cholesterol as cardiovascular risk factors. Quantitative variables were expressed as mean ± standard deviation (SD) and qualitative variables as absolute value and percentage. Between the studied variables a statistical analysis was performed using SPSS Statistics Software 15.0.

Results: 30 patients were studied with a mean age of 38.32 ± 12.7 years old. Proportion men/women was 30.3% and 69.7% respectively. The proportion of AIP was: 63.6%, of VP 9.1% and of HCP 63.6%. We established three groups according to the number of acute attacks suffered: 75.8% of patients belonged to group 1 (none or 1 acute attack) 12.1 to group 2 (from 2 to 5 acute attacks) and 12.1% to group 3 (more than five acute attacks). The percentage of patients who had received treatment with hematin at least once was 37.1%. The mean of glomerular filtration rate was 89.98 ± 32.16. PBG urinary levels were 7.73 ± 11 mg/24h and ALA urinary levels: 5.9 ± 5.4 mg/24h. The mean glycemia was 85.9 ± 9.7 g/dl and mean total cholesterol was 203.37 ± 48.5 mg/dl. Patients with persistently high PBG and ALA urinary levels had lower glomerular filtration rate (GFR), higher glycemia and higher total cholesterol levels. Previous treatment with hematin was associated with lower GFR and higher glycemia levels.

Conclusions: We describe a cohort of patients with acute porphyrias where the most common was AIP. In patients with a more active disease (measured by PBG and ALA urinary levels and by the necessity of treatment with hematin) chronic kidney disease was more prevalent, together with other cardiovascular risk factors.

V-320
ASSOCIATION OF THE PPARΓ GENE POLYMORPHISM PRO12ALA WITH TYPE 2 DIABETES MELLITUS

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Objectives: The nuclear receptor PPARγ is implicated in the mechanisms of adipocyte differentiation as well as in glucose and lipid metabolism. A common polymorphism in the gene encoding PPARγ which is known as Pro12Ala has been associated with decreased risk for type 2 diabetes mellitus, as well as with various effects in weight, insulin resistance and blood pressure and many other clinical and biochemical traits. The aim of our study was the investigation of frequency of polymorphism of Pro12Ala in diabetic patients in the Northern Greek population.

Material and method: We studied 72 adult patients, 30 men and 42 women, with type 2 diabetes mellitus. The duration of illness, the type of anti-diabetic treatment and cardiovascular complications were recorded. DNA sample was collected and blood pressure, BMI, serum levels of lipids, fasting glucose, HbA1C were measured in all patients and were compared with data obtained from 25 control subjects.

Results: The Ala variant was found statistically significant lower in the group of diabetic patients (3.5% versus 10%, p < 0.01) as well as in that of diabetic patients treated with a thiazolidinedione (1.9% versus 10%, p < 0.01). Also, among diabetic persons, Ala variant was associated significant with higher body mass index (p < 0.05), lower fasting serum glucose levels (p = 0.05) and higher systolic blood pressure (p < 0.01). In the group of diabetic persons treated with a thiazolidinedione, Ala variant was associated with later onset of diabetes if adjustment for sex was taken into account (p < 0.05).

Discussion: The frequency of Ala variant in diabetic patients is generally low. Thiazolidinediones are PPARγ agonists with antidiabetic actions. PPARγ activation by thiazolidinediones is reduced when Ala variant is present. Pro12Ala polymorphism correlated with higher BMI, lower fasting glucose level and higher systolic blood pressure in diabetic patients.

Conclusions: The results obtained suggest that the Pro12Ala polymorphism protects against type 2 diabetes mellitus in the study population and affects some clinical traits in diabetic people.

V-324
ADEQUACY OF THE TREATMENT OF SPINAL METASTASES TO VALIDATED PROGNOSTIC SCALE: TOKUHASHI SCORE

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Objectives: To analyze if, after applying the prognostic scale of Tokuhashi to patients diagnosed with spinal metastases at our hospital, the therapeutic indication permitted is recommended in the literature, and assess adherence to the scale and prognostic consistency.

Material and method: A retrospective study of patients diagnosed with spinal metastases between 2006 and 2010 in our hospital (with a minimum of one year follow up after diagnosis). The study variables were: mean age, sex, Karnofsky performance status, number of vertebral metastases, number of extraspinal bone metastases, number of metastases in internal organs, metastases to major organs (brain, lung, liver, kidney), type of primary tumor, presence of neurological damage at the time of diagnosis, presence of pathologic fracture, type of treatment, survival from diagnosis, and in the case of patients who received surgery or radiotherapy, improvement or no pain and the index Karnofsky after them. Was applied to all patients Tokuhashi scale for spinal metastases and found adhesion and forecast consistency (certainty of the survival indicated by scale) of the scale. We excluded those cases in which clinical data were incomplete for analysis or in which follow-up was lost.

Results: 279 cases were analyzed. The mean age was 65 years (SD ± 13), being 60% (n = 168) males. Median survival was 12.8 months, with less than 6 months in 53% of patients. In 64.8% of total cases, the criteria Tokuhashi scale for therapeutic decision making, with a 71.6% consistency overall prognosis. 62% accounted for a score as Tokuhashi scale from 0 to 8 points, corresponding to a life expectancy less than 6 months according to this scale. Of these, 95.4% had adherence to the scale, rejected for surgery and received conservative treatment, and prognostic consistency of 68.7%, with a median survival of 6.15 months. Of those who had not reported adherence to the scale, the median survival was 9 months (being less than 6 months in 33% of them). They were treated by surgery (3 cases and 3 cases excisional laminectomy). Cases with scores between 9 and 11 points, corresponding to a survival depending on the scale between 6 and 12 months were 26.6% of cases, of which 13.4% had adherence to the scale proceeding to palliative surgery. The prognostic consistency was 42.8%, with a median survival of 22.7 months. In all other cases, adding that despite this score is not involved, received conservative treatment, with a median survival of 19.5 months. 11.3% of cases had a score between 12 and 15 points, so that upon the recommendation of the scale would intervene with curative surgery. Of these 22.7% were operated with each other for healing, presenting a prognostic consistency of 80% and a median survival of 30.8 months. The remaining cases, which showed no adherence to the scale were treated, in 1 patient with palliative surgery and the rest with conservative treatment. Median survival in these cases was 28.9 months.

Conclusions: In our study we have observed that despite the lack of adherence to Tokuhashi outcome scale, this does not translate into a decreased survival significantly. In addition, there has been a greater adherence to the scale when the recommendation that the score is conservative, and less adherent when the recommendation is the surgical approach (either palliative or curative).

V-326
CLINICAL FEATURES AND LONG-TERM RENAL OUTCOME IN ICELANDIC PATIENTS WITH APRT DEFICIENCY AND 2,8- DIHYDROXYADENINURIA

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Objectives: Adenine phosphoribosyltransferase (APRT) deficiency is an autosomal recessive disorder of purine metabolism that leads to excessive urinary excretion of the poorly soluble 2.8-dihydroxyadenine (DHA). Radiolucent kidney stones and chronic kidney disease (CKD) are common manifestations. The aim of this study was to assess the clinical features and long-term renal outcome in Icelandic patients with this disorder.

Material and method: The medical records of all 32 Icelandic patients listed in the APRT Deficiency Registry of the Rare Kidney Stone Consortium were reviewed for clinical features, including kidney stones, significant unilateral kidney damage, reduced kidney function and progression to end-stage kidney failure (ESKF). Data are presented as median and range.

Results: Of the 32 patients in the Registry, 18 (56.2%) were females. Median age at diagnosis was 27.3 (0.6-62.8) years and 15 (47%) presented in childhood. Clinical features included kidney stones in 17 patients (53%), CKD in 8 patients (25%) and reddish-brown diaper stain in 4 infants (12.5%). Nine patients (28%) were asymptomatic at the time of diagnosis. A delay in diagnosis of 7.6 (0.4-39.2) years occurred in 22 patients. The causes of this delay included confusion of DHA calculi with uric acid stones and of renal histopathological findings with other forms of crystalline nephropathy. Twenty-nine patients (90.6%) were successfully treated with allopurinol, while 1 patient experienced a severe hypersensitivity reaction to the drug and is currently being treated with febuxostat. Two patients (16%) progressed to ESKF at the age of 36 and 53 years. Seven additional patients (28%) had persistent CKD with estimated glomerular filtration rate < 60 ml/min/1.73 m2. Severe unilateral kidney damage was observed in 2 patients leading to unilateral nephrectomy in both cases.

Discussion: Nephrolithiasis and CKD are the most common manifestations of APRT deficiency. A significant diagnostic delay occurred in the majority of our cases and very likely contributed to kidney damage and impaired renal function.

Conclusions: Timely diagnosis and treatment of APRT deficiency are essential for successful outcome. It is important to increase awareness of this disorder among clinicians and pathologists.

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Infectious diseases

A-1
COGNITIVE IMPAIRMENT AS A FORM OF PRESENTATION OF ACUTE INFECTIOUS MENINGOENCEPHALITIS: REPORT OF TWO CASES

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Objectives: The acute infectious meningoencephalitis is a priority health problem in the area of emergencies. We present two patients diagnosed of acute infectious meningoencephalitis in the Emergency room. One of the cases was caused by HSV type 1 while the other one by Pneumococcus.

Material and method: Descriptive analysis of two cases of acute infectious meningoencephalitis reviewing medical record data.

Results: 1st patient: 55 year old female patient, consulting for 24 hours of evolution of acute confusional state and seizures of right upper extremity associated to fever 39 ºC. Kerning and Brudzinski signs were positive. Cranial scan was normal. Urgent lumbar puncture (LP) was realized (leukocytes 995/mm^3 with 92% lymphocytes and normal glucose and protein). Intravenous Phenytoin and Acyclovir therapy were initiated. MRI was compatible with meningoencephalitis. Polymerase chain reaction of Cerebrospinal liquid (CSL) was positive for HSV type 1. Satisfactory evolution. 2nd patient: 51 year old male patient, who was diagnosed of acute myelogenous leukemia M3 in 1999 that had required chemotherapy and subsequent bone marrow transplant in 2006 for recurrence and since then he is in complete remission. Is brought to the emergency room for 48 hours of evolution of headache and fever 38 ºC that associates in the last hours of decreased of the level of conscience and generalized seizure. Physical examination showed Glasgow 12 with stiff neck and signs of left external otitis. Intravenous Phenytoin and an empirical antimicrobial therapy (Cefotaxime/Ampiciline/Acyclovir) were initiated. Cranial scan showed supratentorial hydrocephalus. Urgent LP was realized (leukocytes 1,695/mm^3 with 95% polymorphonuclear as well as glucose 20 mg/dL and protein 2.5 g/L). Gram stain has proved to be positive for encapsulated diplococci. We added intravenous dexamethasone and continued with cefotaxime. He has been admitted to intensive care unit. CSL culture was positive for Pneumococcus. MRI (2nd and 3rd image) was compatible with meningitis complicated with focal cerebritis and ventriculitis of the left occipital horn. Poor evolution requiring endotracheal intubation as well as ventricular drainage placement that showed low pressure intracranial. For poor prognosis tracheotomy was realized persisted in a coma situation.

Discussion: Several studies (Van de Beek. N Eng J Med. 2004) have detected factors associated to a poor prognosis of acute meningoencephalitis (defunction or persistent neurological sequelae) such as age and level of consciousness with presence of seizures as well as duration of disease before hospital admission and pneumococcal etiology as seen in the 2nd case that we present.

Conclusions: The clinical suspicion, an adequate history and clinical examination and an appropriate therapy of the acute meningoencephalitis in adult Emergency room are essential and become pillars for a correct approach and managing of this infection (time-dependent).

A-2
LOW BACK PAIN AS A FORM OF CLINICAL PRESENTATION OF INFECTIOUS SPONDYLODISKITIS (ISD): REPORT OF THREE CASES

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Objectives: We present three patients diagnosed of ISD. Two of the cases were elderly with multimorbidity while the other one was a young patient with AIDS.

Material and method: Descriptive analysis of three cases of ISD reviewing medical record data.

Results: 1st patient: 78 year old male patient, history of high blood pressure and COPD, who consults for back pain for days earlier with fever 38 ºC in the last 24 hours. 3 weeks before he has diagnosed of urinary tract infection that was treated with amoxicillin and clavulanic acid. Blood test showed C reactive protein 5 mg/dL and ESR 107 mm. Two blood cultures and one urine culture were positive for Enterococcus faecalis. MRI (ISD L2L3). Transthoracic/transesophageal echocardiography were realized and showed mitral valve vegetation. Intravenous antibiotic therapy was initiated (ampicillin and gentamicin) for 4 weeks and then Fluoroquinolone oral to complete 8 weeks. Satisfactory evolution. 2nd patient: 83 year old female patient, history of Type 2 Diabetes Mellitus, who consults for back pain and fever of several days of duration. Blood test showed C reactive protein 16 mg/dL and ESR 129 mm. Two blood cultures were negative. MRI (ISD L4L5). Bone biopsy was realized with culture positive for Streptococcus bovis. Transthoracic echocardiography and colonoscopy were normal. Intravenous antibiotic therapy was initiated (cefotaxime) for 4 weeks and then oral to complete 6 months. Satisfactory evolution. 3rd patient: 45 year old male patient, previous intravenous drug user with methadone replacement therapy, HIV/HCV coinfection since 1987 treated with adherence, who consults for progressive back pain following a transit accident in August 2010, associated to intermittent fever 39 ºC in recent weeks. Blood test showed C reactive protein 6 mg/dL and ESR 140 mm. Two blood cultures were negative. MRI (ISD L4L5 and epidural abscess with compression of the roots of the cauda equina). Transthoracic echocardiography was normal. Abscess biopsy was realized with culture positive for Candida albicans. Intravenous antibiotic therapy was initiated (amphotericin B) that has been changed to intravenous fluconazole (for 4 weeks) for adverse drug reaction. Then oral treatment was maintained for 6 months. Satisfactory evolution.

Discussion: The ISD is a rare entity which incident has increased in the last years due to a major life expectation with chronic diseases that suppose conditions for immunocompromised and for the high prevalence of AIDS. The association between a prolonged axial pain with or without neurological involvement, or fever and an elevated ESR continues to be fundamental in the diagnosis as seen in our three cases. The diversity of etiologic agents (Gómez Sánchez et al. Ann Med Int, 2004), avoids any empirical treatment schemes and makes essential a microbiological and histological study by blood cultures and biopsy such as our three cases.

Conclusions: MRI is the method of choice for suspected spondylodiskitis with a sensitivity of 100% in our three cases.

A-4
MALIGNANCY RELATED CAUSE OF DEATH AMONG HIV-INFECTED PATIENTS DURING THE HAART ERA. HOSPITAL UNIVERSITARIO LA PRINCESA, MADRID-SPAIN, 2006-2011

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Objectives: To describe the clinical, immunological and epidemiological features of Cancer patients living with HIV. To determine the incidence and prevalence of AIDS defining or non defining malignancies in HIV-infected patients during the HAART era. To determine the malignancies - associated morbidity and mortality in patients living with HIV in Highly Active Antiretroviral Treatment era.

Material and method: Descriptive, retrospective, cohort study. In 1,000 adult patients with HIV infection, in follow-up at the "Hospital Universitario de la Princesa" in Madrid – Spain between 2006 and 2011 period. We analized the Database generated by "Nostradamus Software" belonging to the hospital. All HIV-infected subjects with a diagnosis of malignancy were included in SPSS registry database and further processed.

Results: Sixty-eight HIV-infected subjects with malignancies were identified. The global prevalence was 6.8%. The annual incidence average was 11.3 malignancies in 1000 patients/year. 84.6% were male and the average age was 50.5 years old (25-81). 90% were Caucasian individuals. HIV spread was: 44.1% Intravenous Drug Users, 33.9% Men who have sex with Men (MSM), 15% Heterosexual. The HIV patients on HAART at the time of malignancy diagnosis were 77.9%. Individuals demonstrated a 339.9 cells per microliter (21-1044) CD4 count and the CD4 Nadïr rate was 147.9 cells per microliter (2-713). 56.9% had HIV-1 viral suppression (< 50 copies/ml). 20.9% were in virological failure at the time of malignancy diagnosis. The Antiretroviral combination frequently used was 2 NRTIs + 1 PI (47.1%). 83.9% reported active tobacco use or quit smoking at least 3 years ago (a pack of cigarettes/day). 37.9% had increased alcohol consumption. 43.8% and 20.6% were HBV and HCV coinfected respectively. The average time between malignancy diagnosis and HIV was 121 months (0-324). 28% (49/68) were AIDS-defining malignancies (ADM), 13% (9/68) Kaposi´s Sarcoma (KS), 13% (9/68) Intermediate and high-grade non-Hodgkin´s lymphoma (NHL) and 1.5% (1/68) invasive cervical cancer (ICC). The global prevalence of ADM in this cohort was 1.9% and the annual incidence rate was 3.2 by 1,000 patients/year. 72% (49/68) were Non-AIDS-defining malignancies (non-ADM), from which 25% (17/68) were lung cancer, 9% (6/68) hepatocellular carcinoma, 9% (6/68) anal cancer, 6% (4/68) Hodgkin's lymphoma (HL), 6% (4/68) skin cancer and the percentage left other malignancies. The global prevalence of non-ADM in this cohort was 4.9% and the annual incidence rate was 8.2 by 1,000 patients/year. The global mortality was 60.3%. 45% ADM patients died, meanwhile, from 66.7% non-ADM patients deceased.

Discussion: Nowadays, there are a lot of differences in causes of death in HIV patients, however malignancies are still one of the three first causes of death in some studies (CoRIS). The non-ADM were the most frequent underlying morbidity and mortality in the preHAART era, reaching about 90% of the malignancies in database in our hospital. This retrospective cohort, demonstrate that the incidence has been decreased at 28% and the mortality too, even less than non-ADM.

Conclusions: In the HAART era, the incidence of non-ADM is markedly superior than ADM. The most frequent malignancy in the cohort is lung cancer. The global mortality is high and even more in non-ADM.

A-5
INFLAMMATORY BOWEL DISEASE- ULTRASOUND ASSESSMENT OF THE ENTHESOPATY

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Objectives: Enthesitis indicate the place of the tendons, ligaments, aponeuroses, or join to bone and one of the most common and specific manifestations of spondyloarthropathy. The objectives of the study were to determine the prevalence of subclinical entheseas involvement in inflammatory bowel disease (Crohn's disease and ulcerative colitis) patients in lower limbs.

Material and method: The study was included 40 patients diagnosed with inflammatory bowel disease aged between 35 and 42 years without known history of enthesal involvement. Besides, 40 healthy sex- and age- matched controls were included. Between patients with inflammatory bowel disease, 24 patient (M/F = 11/13, mean age 38.33 years) were affected by Crohn's disease and 16 patients (M/F = 9/7, mean age 32.23 years) of ulcerative colitis. Clinical examination and ultrasound were consecutively performed at each of the entheses to detect signs indicative of enthesopathy.

Results: A total of 160 enthesis in patient with inflammatory bowel disease were evaluated by ultrasonography. Enthesitis it was significantly more frequent in patient with inflammatory bowel disease than the control group (22.6% vs 4.36%). Between patients with this pathology, enthesitis was more common in patient with Chron's disease than ulcerative colitis patients (76.5%vs 23.5%). All patients had involvement enthesitis a longer duration of disease.

Conclusions: Our results indicate that enthesitis a characteristic clinical manifestation of spondyloartropathy, is an important clinical manifestation of inflammatory bowel disease, occurring frequently in patients with Crohn's disease with joint involvement. Additional studies are needed on the prognostic value of ultrasound findings to estimate clinical onset of enthesal involvement.

A-6
VORICONAZOL: FROM THE PRODUCT MONOGRAPH TO THE CLINICAL PRACTICE. EXPERIENCE IN A SECOND LEVEL HOSPITAL IN MADRID DURING 2011

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Objectives: Voriconazole is a wide spectrum triazole antifungal drug. The aim of this study is to analyze the indications for prescription of voriconazole, as well as the patient's characteristics and outcome, in 2011 at the Universitary Hospital of Mostoles.

Material and method: Retrospective study analyzing the clinical records and microbiological reports of patients treated with voriconazole in 2011. Definitive and probable invasive aspergillosis were defined according to the Invasive Fungal Infections Group.

Results: A total of 13 patients were treated with voriconazole during the time period analyzed. The clinical indications for which voriconazole was prescribed were: 1) definite invasive aspergillosis: 4 cases (30.8%), 2) invasive aspergillosis suspected: 4 cases (30.8%), 3) likely: 2 cases (15.4%), 4) Candida krusei fungemia resistant to fluconazole: 1 case (7.7%), and 5) Suspicion of systemic fungal disease with an alternative final diagnosis: 2 cases (15.4%). Baseline characteristics of the individual patients were as follows: mean age of 68.38 years (range 45-81 years). Nine patients (69.23%) had respiratory disease (chronic obstructive lung disease in 8 cases and idiopathic pulmonary fibrosis in one). Five patients had malignant diseases (3 patients with hematologic neoplasia, 1 patient with classic Kaposi sarcoma and 1 patient with non-small cell lung cancer). Eight patients (61.5%) had received antibiotic treatment during the previous month. Three patients had received chemotherapy recently, a patient had received a hematopoietic stem cell transplant in the last year and 8 patients were receiving glucocorticoid treatment. One case had no background immunosuppression and developed candidemia due to Candida krusei in a postoperative setting with a central line and on total parenteral nutrition. Average duration of voriconazole treatment was 30.8 days (range 2-47 days). All of the 5 patients (38.46%) with invasive fungal disease and microbiological confirmation presented complete clinical and microbiological response. Of the 8 cases (61.5%) in which voriconazole was administered empirically, 3 patients had clinical response, 3 patients died and 2 patients had no response and were finally diagnosed of some other pathology.

Discussion: Despite all efforts, voriconazole was prescribed without microbiological confirmation in 61.54% of cases. These patients received voriconazole because of a high clinical suspicion of invasive fungal disease based on clinical and radiological findings. It is noteworthy the differences in clinical outcomes between patients receiving voriconazole based on microbiological identification vs patients treated with variconazole empirically based on clinical data (cure rates 100% vs 37.55% respectively). This difference might be partially explained by the fact that some patients without microbiological confirmation probably did not have a fungal disease.

Conclusions: The main clinical indication for prescribing voriconazole was invasive aspergillosis (microbiologically confirmed or clinically suspected). Voriconazole has high cure rates among patients with microbiological confirmation of invasive fungal disease.

A-7
PROSTHETIC JOINT INFECTIONS: PROSPECTIVE OVERVIEW OF A COHORT OF PATIENTS IN THE LAST FIVE YEARS

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Objectives: To analyze clinical and epidemiological data as well as medical and surgical management of patients with diagnose of prosthetic joint infection (PJI) of the knee and the hip in our hospital during the last five years.

Material and method: Prospective observational cohort study of adult patients with PJI diagnosed from January 1, 2007 to December 31, 2011 in our hospital, after implementation of a cooperation protocol between Internal Medicine and Orthopedic Surgery. The PJI were classified according to the classification of Tsukayama et al modified into 4 types: 1) early postsurgical infection or type I (< 1 month after the intervention); 2) late postsurgical infection or type II (> 1 month and < 1 year); 3) hematogenous infection or type III (> 1 year after surgery without symptoms); and 4) positive culture without previous suspicion of infection or type IV. The diagnosis was made by different samples: intraoperative cultures, pus macroscopic with negative cultures or presence of one or more sinus tract communicating with the joint. Analysis peformed using SPSS version 19.0.

Results: Sixty one patients were included, with a median age of 69 (IQR 39-91) years. Seventy two percent were women. Thirty-three cases (54.1%) were knee prosthesis, with an infection rate of 4.35%; 28 cases (45.9%) were due to infectious complications of hip replacement, with an infection rate of 2, 78%, 77.7% of which were total and 22.2% partial prosthesis. The reason for prosthetic replacement was: a) arthrosis (68.9%), b) closed fractures (19.7%)

and c) avascular necrosis of bone (5%). Seventy-four percent of patients had comorbidities, the most common were: diabetes (27.9%), heart diseases (24.6%) and obesity (23%). Half of patients had surgical risk factors related for infection: superficial surgical site infection (18.3%), bleeding (16.7%) and hematoma (15%). Independently, 44.9% had postsurgical risk primarily related to invasive procedures (23.7%) and direct trauma to the prosthesis (21.1%). Isolated microorganisms were coagulase-negative Staphylococcus in 53% (77.5% methicillin-resistant), Staphylococcus aureus in 13.8% (37.5% methicillin-resistant), and gram-negative bacilli in 7% of cases. The most common type of infection was chronic (60.3%), followed by hematogenous via (22.4%) and early (15.5%). Most of chronic infections (78.7%) were treated with two-stages refill supplemented with antibiotic treatment for 6 weeks according to the antibiogram. Early and hematogenous infections were treated with surgical debridement and retention of the prosthesis in the 63.1%. We have the follow-up to the year of 34 patients: 62.5% were asymptomatic, with decline in the acute phase reactants and maintaining of a good functional capacity (76.6%); 3 patients died, one of them by direct cause of infection.

Conclusions: In our cohort, there is a predominance of patients with co-morbidity due to an arising ageing population. At least, half of the patients had peri and post-surgical complications. Taking into account these two situations, we should try to identify the population at high risk of infection to perform a better prevention in them and avoid as far as possible new cases of infection, even indicating whether or not the surgical procedure. The most common etiology was similar as described in the literature, showing a slight increase of Staphylococcus spp. resistant to methicillin. Empirical antibiotic therapy should cover these microorganisms.

A-8
OUTPATIENT PARENTERAL ANTIMICROBIAL THERAPY: EFFICACY AND SAFETY IN INFECTIOUS PATHOLOGY PROCEEDING FROM THE EMERGENCY DEPARTMENT

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Objectives: To evaluate efficacy and safety of Outpatient Parenteral Antimicrobial Therapy (OPAT) in patients with an infectious disease proceeding from the Emergency Department (ED) and treated in a Home Health Care Unit (HHCU).

Material and method: Prospective evaluation of all patients admitted with infection to our HHCU for OPAT from 2008 to 2011. We compare two groups: patients coming from the ED were included in the study group while the rest of patients coming from other Departments were the control group. OPAT was self-administered by caregivers and/or patients with elastomeric infusion devices.

Results: We recorded 492 consecutive OPAT episodes, 92 coming from the ED and 400 coming from other hospital departments. Patients who came from the ED were olders (69.4 years vs 63.3, p = 0.005) with greater functional impairment (Barthel Index 77.2 vs 86.5, p = 0.05), a shorter hospital stay (11.1 days vs 21.3, p < 0.001), less use of central venous access (19.5% vs 61.5%, p < 0.001), higher proportion of urinary infections (42.4% vs 8.3%, p < 0.001), lower proportion of bone and joint infections (2.2% vs 12%, p = 0.005) and also lower proportion of intraabdominal infections (3.3% vs 17%, p = 0.001). The study group also presented a greater proportion of Enterobacteriaceae Extended-Spectrum Beta-Lactamase (ESBL) infections (13% vs 28.8%, p = 0.01) and a lower proportion of P. aeruginosa infections (7.6% vs 25.8%, p < 0.001). Cases proceeding from the ED were associated with a higher use of ceftriaxone (38% vs 16.3%, p = 0.001), lower use of anti-pseudomonal antibiotics (13% vs 28.8%, p = 0.002), a lower use of aminoglycoside (4.3% vs 16.5%, p = 0.003) and a lower use of simultaneous endovenous antimicrobial combinations (3.3% vs 19.3%, p < 0.001). Patients proceeding from the ED were neither associated with a higher risk of hospital readmission (p = NS), nor at 30 days after hospital discharge (p = NS) or at 90 days after hospital discharge (p = NS), nor a worse evolution of the infection (2.2% vs 2%, p = NS), nor an increased number of healthcare associated infections (3.3% vs 1.5%, p = NS). Similar results were observed when we analyzed the subgroups of patients admitted to the HHCU with respiratory infection or urinary infection. There was a greater number of complications in vascular access in patients proceeding from the ED but without statistical significance (33% vs 25%, p = 0.09). In the logistic regression analysis, the complications of venous access were related to the use of peripheral venous acess and with the duration of the endovenous treatment, but not with proceeding from the ED. The complications from venous access were mild in all cases and were solved in 93% of cases by nursing staff at patients' homes.

Discussion: Our work shows a high number of respiratory infections and a proportion of urinary, bone and joint and intraabdominal infections. These differences were due to the uptake of patients in surgical services and the protocolization of uncomplicated pyelonephritis between the HHCU and the ED in order to avoid hospital admission. The antibiotic administration was by elastomeric infusion devices manipulated almost exclusively by the caregiver or the patient. These results suggest that manipulation of the venous access by a trained caregiver or patient is safe. Finally we did not observe a higher number of hospital readmission.

Conclusions: Self-administered OPAT is effective and safe in patients proceeding from the ED. This modality treatment in the context of a HHCU does not lead to a worse evolution of the infectious process or a increase in rates of hospital readmission. HHCU is a good alternative to a conventional hospitalization.

A-9
HIV PATIENTS IN THE INTENSIVE CARE UNIT

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Objectives: A descriptive study of HIV patients admitted to the intensive care unit of our hospital over the past 6 years.

Material and method: A retrospective study which reviewed all cases of HIV patients admitted to the ICU of the Hospital Clinico Universitario Lozano Blesa in Zaragoza from 1 January 2006 to December 2011. The sample included a total of 82 patients which were collected epidemiological data, medical history, circumstances in relation to HIV infection, toxic habits, HBV coinfection and/or HCV diagnoses in relation to their admission to the ICU, clinical course and mortality.

Results: The average age of HIV patients admitted to the ICU was 53 years. There is a predominance of men (88%) compared to women (12%). 95% of patients were Spanish, 4% African and 1% from Romania. The reason for ICU admission was prompted by events in a 69% AIDS cases, while the remaining 31% is made up of non-AIDS events, that is increasing in the last years. With regard to AIDS events, the CD4 count is distributed with 94% of patients admitted for an AIDS event were less than 200 per mm3 and 6% had figures between 200 and 500/mm^3. Following AIDS events, no patient had undetectable viral load, with less than 10 000 copies of the virus by 80% and over 10,000 copies 20% of patients. 15% of patients were

infected with HBV and HCV, only 5% coinfected with HCV and 80% of them were free of co-infection. 20% of patients wore it at the time of ICU admission and yet the remaining 80% had no treatment. Among the highlights diagnoses mainly Pneumocystis jiroveci pneumonia followed by tuberculosis and cytomegalovirus. Almost 50% of these patients have a poor outcome and die during their ICU stay. With respect to non-AIDS events, patients with CD4 less than 200 per mm^3 is lower, 45%, 30% thereof with entry numbers of CD4 above 500 per mm^3. 60% of patients have an undetectable viral load, with only 15% of patients with more than 10 000 copies. 40% of patients are coinfected with HCV and 10% with HCV and HBV. 75% of cases had antiretroviral therapy and with respect to the pathologies of cardiovascular highlights, such as myocardial infarction present in up to 20% of cases, followed by problems of hepatic origin, postsurgical patients, drug overdose, pneumonia, cerebrovascular disorders, and multiple trauma.

Discussion: The age of HIV patients admitted to ICU is low. Most of our HIV patients are Spanish, followed by Africans. It remains most common cause of admission to the ICU the pathology associated with AIDS compared with non-AIDS disease, but this percentage is falling, this is due to improvements in treatment, implying increased survival of these patients and therefore, appearance of age-related pathologies. Patients admitted with AIDS events had lower numbers of CD4 and viral load higher than patients admitted with non-AIDS events such as heart disease. Highlights include heart disease as occurs in the general population.

Conclusions: 1. In patients not HIV-AIDS events are the main reason for ICU admission. 2. The non-AIDS events continue to give rise to income in the ICU significantly, especially in patients with antiviral treatment. 3. The set of cardiovascular disease is the main reason for ICU admission of non-AIDS events. 4. The increase in life expectancy in HIV patients after the advent of highly active antiretroviral therapy (HAART) are more frequent pathologies such as cardiovascular and chronic liver disease in these patients, which motivates more complications and increased ICU admissions of these patients.

A-10
COMPLICATIONS OF INTRAVESICAL BCG IMMUNOTHERAPY: TWO CLINICAL CASES

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Objectives: Description of two cases of severe complications of intravesical BCG immunotherapy and their response to treatment.

Material and method: Revision of Hospital's computerized medical records.

Results: 1st clinic case: A 73 years old man with a history of superficial bladder tumour (1999), underwent several TUR. There was a High-grade superficial recurrence in Feb/11. He was treated with BCG monthly for a year. Occasionally he presented with urinary symptoms and fever after BCG instillation, requiring empirical antibiotic treatment. In March 2012 he attended the ER because of 24 hours of high fever and chills, a few hours after the last instillation of BCG. There was respiratory distress and haemodynamic shock. Blood cultures, sputum cultures, Gram and ZN were negative. CXR showed bilateral alveolar infiltrates and diffuse interstitial pattern. Chest CT: extensive bilateral pulmonary parenchymal involvement, with ground-glass infiltrates, patchy areas of consolidation with a tendency to coalesce predominantly in the posterior areas, and multiple micronodular opacities randomly distributed in both lungs. Bilateral pleural effusion. Tuberculosis (TB) treatment (RHE) was started, resulting in improved clinical, respiratory and biological parameters. Control thorax CT 3 months later: significant reduction of miliary pattern whith less micronodular oppacities. 3.5 months after the beginning of the symptoms, the patient had no other respiratory complications. 2nd clinic case: A 78 year old man, with history of high grade bladder cancer, diagnosed in early 2011. In 07/2011 he started weekly doses of BCG. 6 doses were completed without incident. Afterwich bladder cytology was negative. Another 6 weekly doses began on 02/03/2012. A few hours after the first instillation he had fever and chills. On 05/03/2012 he went to the ER with dyspnoea. Sat.O_2 92%. CXR: interstitial infiltrate predominantly in RLL. He was admitted with suspected lower respiratory tract infection and began treatment with Levofloxacin. After a rapid worsening of respiratory symptoms, on 06/03/2012 a chest CT reported: extensive areas of diffuse ground glass infiltrates and bilateral patchy areas of consolidation predominantly in posterior segments, associated with bilateral pleural effusion. Treatment started with high doses corticosteroids and specific tuberculosis treatment (RHE), alongside Levofloxacin. Clinical and biological parameters improved during the first 24 hours. On the second day of admission he had progressive dyspnoea and scattered wheeze in both lung fields, which did not improve with bronchodilators. ABG (FiO_2 100%): pH 7.04, PCO_2 110, PO_2 78, HCO_3-29.70; BEB -3.50, SO_2 88%. Blood cultures, sputum cultures, Gram and ZN were negative. Severe respiratory distress led to the patient's death two weeks after admission to ICU.

Discussion: We present one case with UTI, sepsis and pneumonitis and one with severe pneumonitis which occurred immediately after BCG bladder instilation. BCG is a live, attenuated strain of M. bovis, which is widely used as an adjuvant treatment in the management of non-muscle invasive urothelial bladder cancer. A localized BCG cystitis is the most common complication observed. Although serious complications following intravesical BCG are rare, infections like sepsis (0.4%) and pneumonitis (0.7%) have been reported. This risk may be increased if BCG is instilled too early following surgery or after traumatic catheterization. We have checked that all our protocols were strictly according to the international ones.

Conclusions: Complications of intravesical BCG for bladder malignancy are rare, appearing within hours after the procedure. They are very serious, and sometimes fatal, and can respond to steroid treatment and adequate anti-TB treatment.

A-11
TREATMENT OF PATIENTS WITH BACTEREMIA IN HOSPITAL AT HOME

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Objectives: Analyze the efficacy and safety of treating patients with bacteremia in a Hospital at Home (HaH) Unit.

Material and method: Prospective study including all patients admitted to HaH Unit in 2011 diagnosed with bacteremia. Patient characteristics, number of previous days in hospital, microbiology, treatment and clinical outcomes were analyzed.

Results: 28 patients with bacteremia were included. 52% were male. Mean age was 64 years (27-92). 21.4% of patients had neoplasia, 7% diabetes mellitus. 7% of patients had thrombocytopenia and 17.8% leukocytosis on admission to HaH Bacteremia was caused by gram negative bacilli in 53.5% of patients and by gram positive cocci in 46.5%. The most frequently isolated bacteria were E. coli and S. epidermidis. Mean stay in Hospital before admission to HaH was 2.2 days (1-7). Patients were referred from: Emergency department (42%), internal medicine (21%), urology (14%), oncology (10%) and surgery (10%). The most commonly used antibiotics were ceftriaxone and daptomycin. Switching from IV to oral therapy was possible in 39.2% of patients. All patients had a good outcome. None of patients was transferred to Hospital.

Discussion: Patients with bacteremia stay in Hospital to receive intravenous antibiotic even though the clinical condition is stable. Treatment and control of clinical evolution can be carried out at home.

Conclusions: Treatment of patients diagnosed with bacteremia in HaH is safe and effective alter a short period of hospitalization.

A-13
PROGNOSIS FACTORS IN BACTEREMIA CAUSED BY MULTIRESISTANT PATHOGENS

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Objectives: Determine the prognosis factors or predictors of poor outcome of multiresistant bacteremia caused by multirresistant bacteria.

Material and method: 89 patients diagnosed with bacteremia because of multiresistant bacteria (resistance to three or more families of antibiotics) were included in our study. Patients diagnosed in Hospital of Denia (Alicante), between February 2009 and April 2012. The studied variables were age, gender, length of stay, death, infection risk factors, medical history, service of admission, isolated germ, and treatment given. Statistical analysis was performed using SPSS 18.0.

Results: There were 72 isolates. The isolates were: E. coli ESBL + 44.4%, MRSA 29.2%, K. pneumoniae ESBL + 12.5%, S. marcescens 9.7%, and P. aeruginosa carbapenem-R 4.2%. The overall mortality was 22.1%. 29.4% of dead patients requiring OTI. Seed mortality was: K. pneumoniae 50%, 35% MRSA, P. aeruginosa 33.3%, E. coli 10.3%, and S. marcescens 0%. 70% of patients had predisposing factors: DM (21.9%), neoplasm (21.9%), hypertension (14.1%), COPD (7.4%), and CRF (6.3%). 10.8% of patients came from social and health institutions, and among these the mortality was 42.9%. 52.2% had a hospitalization in the previous 6 months, and among these patients the mortality was 28.1%. Mortality by gender was 44.4% in women, and 14.3% in men. For age, younger than 65 years was 14.7%, and over 65 years of 31.3%. In relation to the service of admission, mortality was 50% in the ICU, 28.6% in Internal M, 7.1% in the ER, and 0% in other services. A higher mortality in patients with clinical history of COPD (40%), alcoholism (33.3%), CRF (33.3%), DM (21.4%) and neoplasia (23.1%). On the end-point mortality, we found a relationship with the source of bacteremia ($p < 0.05$), OTI in the case of Klebsiella ($p < 0.05$), and previous surgery for MRSA ($p < 0.05$). In relation to all other factors studied, including nutritional status, presence of fever, leukocyte count, there were no statistically significant differences.

Discussion: The most common bacteria isolated was E. coli ESBL +, which corresponds to a high percentage of urinary bacteremia or sepsis. Mortality was higher in the case of patients requiring IOT, associated with higher mortality of K. pneumoniae, probably because of the co-morbidity experienced by patients who needed OTI. We have also found a relationship between poor prognosis and patients with MRSA bacteremia who had undergone previous surgery. Unlike other studies, in our case we have found not a worse prognosis in cases of malnutrition or other predisposing factors involving immunosuppression or comorbidities.

Conclusions: The germ more frecuently isolated was E. coli ESBL +, in conjunction with a high proportion of bacteremia of urinary origin. The germ with increased mortality was K. pneumoniae associated with need for OTI, which is a poor prognostic factor. Previous surgery, is a poor prognostic factor in the case of MRSA bacteremia.

A-14
ROTHIA MUCILAGINOSA: AN INOFFENSIVE HOST?

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Objectives: To know the clinical impact of Rothia mucilaginosa (Rm) isolation in patients from an hematology department.

Material and method: We reviewed retrospectively positive Rm cultures isolated between 2002-2012 in the Hematology Department of Son Llàtzer Hospital in Palma. Blood and good quality sputum (no epithelial cells and at least 50 leukocites per field) specimens were Gram stained and inoculated on blood agar on chocolate plates incubated aerobically and anaerobically. We reviewed literature by using Pubmed, searching results for: "Rothia mucilaginosa", "Stomatococcus mucilaginosus", "Staphylococcus salivarus" and "Micrococcus mucilaginosus".

Results: We found 9 cases in which Rm was isolated (Table 1). Two cases were primary bacteremia and 7 were respiratory tract infections (1 pneumonia and 6 severe acute bronchitis). At the moment of infection patients had a median of 2,700 neutrophils (range 0-17,400). Both patients with primary Rm bacteremia had severe aplasia (0 neutrophils). Four patients (44.4%) had either respiratory or otolaryngologic chronic disease. In three cases (33.3%) co-flora was isolated. Quinolone susceptibility was tested in 7 cases, and in 6 of them (85.7%) Rm was resistant. In all 6 patients levofloxacin had been previously used. Penicillin resistance was found in 5 cases (55.5%) and erythromicyn resistance in 2 (22.2%). All strains were fully susceptible to carbapenems, third generation cephalosporins and aminoglycosides. The only registered death was not related with Rm infection.

Discussion: Although Rm is part of normal oropharyngeal flora, it has also been described as a pathogen, specially in immunosupressed patients. There is a wide spectrum of infections reported, mainly primary bacteremia, central nervous system infections, endocarditis and respiratory tract infections. As Rm is a Gram-positive, coagulase-negative, encapsulated coccus, presented in clusters, tetrads or pairs, it can easily be morphologically confused with other genera as Enterococcus and Staphylococcus. That is why Rm infections could be under-reported. Neutropenia is the most frequent risk factor for Rm bacteremia and was present in our two cases. To our knowledge only 11 cases of Rm pneumonia have been previously reported. We describe a new case of Rm pneumonia in which several risk factors were present. As previously noted Rm is present in normal oropharyngeal flora, and a positive result in sputum samples can lead to confusion. However, we think that in our cases Rm was a real pathogen because of the good quality specimens and the positive outcome of the patients under guided treatment. Quinolone resistance is common, specially in immunosupressed patients and in those previously treated with this drugs. Almost all of our strains showed quinolone resistance. Susceptibility to beta-lactams, macrolides and aminoglycosides varies. In our strains penicillin resistance was also frequent. We observed intact susceptibility to carbapenems and third generation cephalosporins.

Conclusions: Rm is an emerging opportunistic pathogen in immunosupressed patients, especially in those with previous quinolone treatment. We report one new case of Rm pneumonia,

Table 1 (A-14). Rothia mucilaginosa infections

Case	Age/ gender	Previous quinolone treatment	Specimen	Clinical presentation	Co-flora	Treatment	Predisposing condition	Neutrophils	Outcome	Q/P resistance
1	66/M	Yes	2 Blood cultures	Primary bacteremia	S epidermidis	Meropenem and teicoplanin	AML. XII cranial nerve paralysis	0	Death	Yes/No
2	90/F	No	1 Sputum	Acute bronchitis	Mixed flora	Erythromicyn	MM	600	Full recovery	Yes/Yes
3	58/F	Yes	3 Sputum	Acute bronchitis	No	Cefditoren	NHL. Asthma. Mucositis	2.100	Full recovery	Yes/Yes
4	73/M	No	3 Sputum	Acute bronchitis	No	Cefuroxime	Myelofibrosis. COPD	6.500	Full recovery	No/Yes
5	69/F	Yes	3 Sputum	Acute bronchitis	Corynebacterium species	Meropenem	NHL	2.700	Full recovery	Yes/Yes
6	32/M	Yes	2 Sputum	Acute bronchitis	No	Imipenem	HD	3.700	Full recovery	Yes/No
7	58/M	No	3 Sputum	Pneumonia	No	Ceftazidime	MM. COPD	4.400	Full recovery	Not tested/No
8	67/M	Yes	1 Sputum	Acute bronchitis	No	Azithromycin	MM	17.400	Ful recovery	Not tested/Yes
9	18/M	Yes	2 Blood cultures	Primary bacteremia	No	Meropenem and teicoplanin	ALL	0	Full recovery	Yes/No

Q: Quinolone. P: Penicillin. M: Male. F: Female. AML: Acute myeloid leukemia. MM: Multiple myeloma, NHL: Non Hodgkin lymphoma. COPD: Chronic obstructive pulmonary disease. HD: Hodgkin disease. ALL: Acute lymphoid leukaemia.

which is rarely reported. Quinolone and penicillin resistance is common, so its use as empiric treatment is not recommended. Although vancomycin is considered as the first choice for Rm infection, empirical use of carbapenems or third generation cephalosporins seems to be a good and safe option.

A-15
INFECTIOUS SPONDYLODISCITIS: CLINICAL FEATURES OF 36 PATIENTS IN A HOSPITAL

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Objectives: To describe the clinical characteristics of patients with spondylodiscitis at the Hospital San Pedro from2007-2011. To analyze the outcome of the C-reactive protein (CRP) and the erythrocyte sedimentation rate (ESR) as a marker of response to antibiotic treatment.

Material and method: We conducted a retrospective descriptive study of all patients diagnosed with spondylodiscitis in our hospital in the period 2007-2011. We identified the patients with symptoms and signs characteristic of this disease, magnetic resonance imaging (MRI) or computed tomography (CT) compatible. Data analysis was carried out using the SPSS software.

Results: Were identified 36 patients with spondylodiscitis. Mean age was 61 years old and the average hospital stay was 24 days. 61% of patients were male. One or more comorbid diseases were present in 66% of patients, being diabetes mellitus the most frequent one (22%). The most common symptoms were pain (94%) and fever (63%), while neurological symptoms were only present in 19% of cases. The most common location was the lumbar spine (55%) and the thoracic spine (36%). The MRI was performed in 95% of patients. Among microbiology findings, gram-positive bacteria were identified in 33% of patients, Mycobacterium tuberculosis in 19%, gram-negative bacteria 14% and no organism was identified in 33%. Gram-negative bacteria were isolated in patients with diabetes mellitus mainly, as well as in patients with renal failure and aged over 80 years old. The identification of the microorganism was performed by biopsy in 36% of cases, while blood cultures were positive in 30% of patients. Among patients with elevated CRP at diagnosis, 65% returned to normality after 2 weeks of treatment, while ESR remained elevated in 66%. Surgical treatment was performed in 25% of the patients; the most frequent indications were drainage of abscesses and spinal cord compression. After treatment, 61% had fully recovered, while 33% of cases had recovered with residual symptoms, pain mainly. Only one patient died (2%), because of sepsis by gram-negative microorganisms and concurrent infectious endocarditis.

Discussion: Spondylodiscitis is an infection that affects two vertebral bodies and their intervertebral disc. Incidence is low (estimated around 1-4/100,000 persons/year), but has steadily increased in recent years because of the frequent use of invasive procedures (intravenous and genitourinary access) as well as the use of intravenous drugs and increasing age of the population. The MRI is the most sensitive radiologic technique to detect spondylodiscitis. Mortality is low (< 5%) but early diagnosis and optimal treatment are very important for a favorable outcome.

Conclusions: Spondylodiscitis is primarily an adult disease. -Male patients are affected predominantly. One or more comorbid diseases were present in our study, mainly diabetes mellitus. Predominant causative organisms were Gram-positive bacteria. CRP

levels return to normality more rapidly than ESR after antibiotic treatment. Early antimicrobial therapy and timely surgical intervention are essential for an optimal outcome.

A-17
MORTALITY IN PATIENTS WITH INFECTIOUS DISEASES

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Objectives: To analyse the mortality in the Hospital de Tomelloso (HdT) in the inpatients with infectious diseases.

Material and method: Retrospective study with case search by CMBD (Basic Minimum Data Set) from April 2007 until July 2008. Review of the medical history. Analysis with SPSS version 15.0.

Results: There were 555 inpatients with infections in that period with the diagnosis of respiratory infection (205), pneumonia (186), urinary infection (66), sepsis (60), skin and soft-tissues infection (27), meningitis (5), peritonitis for intestinal ischemia (4) and endocarditis (2). There were included 45 patients who deceased, with males 60% (27), median age 82.7 years-old (range 68-97), and median stay of 3 days (range 1-55 days). The quarter of the patients had been admitted at least once in the previous year, 56% of cases had cognitive impairment and 20% had oncologic disease. Some clinical findings and laboratory tests are summarized in Table 1. When we compared them according to the kind of infections using an ANOVA test, we obtained a statistically significant difference for systolic blood pressure in peritonitis with intestinal ischemia ($p = 0.012$). Cultures were requested in 26 patients (58%), with 12 blood cultures (with 4 positive results), 17 urine cultures (3 were positives and 3 were contaminated) and other cultures in 8 cases (with 6 positive results). The isolated bacteria included Staphylococcus aureus (in 4 patients being methicillin-resistant in 3 cases), Staphylococcus epidermidis (3), Pseudomonas aeruginosa (1), Escherichia coli (1), enterococci (2) and Candida (2). The fever had not influence in the request of cultures in contrast with the type of infection (with no statistically significant differences).

Discussion: The infections with mortality above 10% of the inpatients were peritonitis for intestinal ischemia (100%), sepsis (18%) and skin and soft-tissues infection (12%). The absence of Intensive Care Unit and surgeon on guard duty in HdT is a deciding factor in the type of inpatients and the time of admission. The surgery was refused in all the patients with intestinal ischemia and it explains the high mortality. The presence of fever is not a factor for requesting cultures.

Conclusions: The type of hospital and the absence of several services are the main factors in the selection of the inpatients.

A-18
ACTINOBACULUM SPP INFECTION: A REPORT OF 12 CASES

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Objectives: The aim of this paper is to describe a series of 12 patients with urinary tract infections or bacteremia caused by different species of this genus, especially A. schaalii.

Material and method: Setting: 600-bed university tertiary care hospital in Barcelona, Spain. From July 2007 until December 2011 the presence of Actinobaculum genus was routinely investigated in urine cultures and blood cultures.

Results: Bacteriology: during the study period, 2007-2011, 13 isolates of Actinobaculum spp. were obtained. Gram stain of urine samples showed gram-positive rods in the presence of many leukocytes. Actinobaculum schaalii in ApiCoryne gallery showed positive: α-glucosidase, pyrrolidonyl-arylamidase, hippurate hydrolysis, fermentation of ribose and maltose. Three patients had positive blood culture, in case number 2, the growth was in two anaerobic culture of the set of the two blood cultures. In case number 5, it grew in three bottles and in case number 7 in one aerobic bottle. Patients: Most of them had underlying diseases, being neoplasms (25%) and diabetes (16, 67%) the most frequent. Patient number 12 was treated with fosfomycin. All patients had a favourable outcome, with no deaths related to the infection. No recurrences were recorded.

Discussion: Our interest in finding species belonging to the genus Actinobaculum in our laboratory is due to our first patient observed in July 2007. Actinobaculum genus gives negative results to reductions nitrate, so nitrite urine dipstick screening tests are always negative. Similarly as in previous reports, all strains were susceptible to betalactamic antibiotics and resistant to ciprofloxacin. Microbiologists should be able to spread the role of these species belonging to Actinobaculum genus among the clinicians, in order to be aware of their pathogenic potential, especially A. schaalii. Unless microscopy of Gram's stains or wet smear will be used to screen urinary samples, specimens will often not be cultured in an atmosphere supporting growth of Actinobaculum genus. One useful possible clinical algorithm for detecting these infections in patients with clinical UTI, could be the presence of piuria with negative nitrites in the dip-stick conditions. Moreover, if the patient does not respond to empirical quinolones of cotrimoxazole the suspicion index should be higher.

Conclusions: Actinobaculum genus among the clinicians, in order to be aware of their pathogenic potential. One useful possible clinical algorithm for detecting these infections in patients with clinical UTI, could be the presence of piuria with negative nitrites in the dip-stick conditions. The majority of articles about these microorganisms have been published in North European countries.

Table 1 (A-17)

Hemoglobin	Leukocites	Neutrophils	Creatinine	Urea	C reactive protein	Temperature	Systolic blood pressure
3.9-16.4 g/dl Median (M): 11.65	900-47,100 M: 15,200	550-44,600 M: 13,100	0.3-12.9 mg/dL M: 1.81	23-220 mg/dL M: 91	0-42 mg/dL M: 13.46	35-39.0 oC M: 36.6	60-220 mmHg M: 120

A-19
LIVER STIFFNESS IN INACTIVE HBV CARRIERS MEASURED BY TRANSIENT ELASTOGRAPHY. FACTORS ASSOCIATED WITH SEVERE FIBROSIS

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Objectives: Liver stiffness measurement (LSM) by transient elastography is an accurate method for liver fibrosis assessment. The aim of this study is to determine LSM in a cohort of inactive HBV carriers and analyze the effect of different factors on liver fibrosis.

Material and method: Observational study with patients classified as inactive HBV carriers with EASL criteria (non-treated patients with negative HBeAg, normal ALT and HBV-DNA < 2,000 IU/mL, persistently) followed at a reference clinic in Spain. Diabetic, statin-taking and > 60 gr/day alcohol drinker patients were excluded. All with ≥ 1 valid LSM (> 10 right shots, ratio > 60% and IQR/LSM < 20%) and clinical and laboratory assessment at the same time. HOMA-index, and body mass index (BMI) were calculated. LSM > 7.5 kPa was considered severe fibrosis. Factors associated with severe fibrosis were explored using unadjusted and multivariate anjusted logistic regression analyses, with SPSS 18.0.

Results: 78 patients were included: aged 44 ± 12 years, male 69%, Caucasian 81%, BMI 25.7 ± 4.2 Kg/m^2, waist circumference 84 ± 14 cm, LSM 5.9 ± 2.6 kPa, HOMA 2.41 ± 0.17, ALT 31 ± 13 IU/L, undetectable HBV-DNA 17%. LSM correlates significantly only with HOMA (0.501, p = 0.001), triglycerides (0.461, p = 0.002), HDL-c (-0.536, p = 0.002) and waist circumference (0.449, p = 0.004). Of them, 17 (22%) had severe fibrosis. In the multivariate analysis (OR [95%CI], p), male sex (12 [2-28], < 0.001), HOMA > 2.8 (5 [2-20], 0.01), triglycerides > 150 mg/dl (8 [3-46], 0.01), HDL < 50 mg/dl (12 [4-34], 0.006) and elevated waist circumference (women > 80 cm, men > 94 cm) (3 [1-62], 0.05) remained as independent predictors of severe fibrosis; without statistical significance in LDL, BMI, age, transaminases, platelets count and HBV-DNA.

Conclusions: In inactive carriers, more than 20% have high LSM, despite the low ALT and HBV-DNA levels. -In them, parameters related with metabolic syndrome (low HDL, high triglycerides and HOMA and abdominal obesity) appear to be the main determinants of severe fibrosis and must be an important focus of attention. The follow-up of this cohort continue in order to evaluate the progression of fibrosis and the impact of interventions to reduce metabolic disturbances.

A-20
TUBERCULOSIS: DIFFERENT TYPES OF PULMONARY INVOLVEMENT

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Objectives: The lungs are the most common site of involvement by Mycobacterium tuberculosis infection. Pulmonary manifestations of tuberculosis include primary, reactivation, endobronchial and lower lung field infection. Complications of tuberculosis frequently result from lung involvement and include: hemoptysis, pneumothorax, pleural effusion, bronchiectasis and, in some cases, extensive pulmonary destruction (cavities). The current presentation has the purpose of, using the authors daily clinical experience, reflect about the pulmonary involvement by tuberculosis infection and its possible complications in order to review some specificities related to the diagnosis, management and treatment of this disease.

Material and method: Revision of five clinical cases and literature review were performed. A 18 year-old Caucasian female, with no prior pathologic history, was transferred from another health institution to our Emergency Department after performing a chest X-ray that demonstrated the existence of a large volume hydropneumothorax. She presented with a clinical scenario, with one month of evolution, of asthenia, anorexia and weight loss, accompanied by productive cough and night sweating. 24 hours prior to the admission she developed, suddenly, a chest pleuritic pain and noticed the existence of fever. A 52 year-old Caucasian male was referenced by his Family Physician because he presented complaints of productive cough and pleurisy with one month of evolution. On admission he described resting dyspnoea, asthenia, anorexia and weight loss, night sweating and vespertine chills, ignoring the existence of fever. A 36 year-old Caucasian male observed in the Emergency Department after a sudden onset of haemoptysis. He also referred a two weeks prodrome of productive cough. A 54 year-old Caucasian male presenting with a clinic of fever, nonproductive cough and pleuritic chest pain in the left hemithorax base in the previous two weeks. He also described asthenia, anorexia and weight loss, as well as a notion of night sweating. A 51 year-old Caucasian male with an insidious evolution of dyspnoea, dry cough of vespertine predominance, chest pleuritic pain and night sweating with two months of evolution. He reported also the existence of constitutional signs and symptoms (asthenia, anorexia and weight loss).

Results: In the first case, a thoracic CT scan was made and confirmed the existence of a pleural effusion. The analysis of the last one demonstrated an empyema with ADA levels of 101.8 U/L (normal value < 40 U/L) and allowed the identification of Mycobacterium tuberculosis (also identified in sputum samples). The second and the third cases were diagnosed through the identification of the aforementioned microorganism in sputum samples (microscopy and culture examination). In the fourth case, all the cultural results were negative and the diagnosis was possible through the microscopic identification of Mycobacterium tuberculosis in the pleural biopsy fragment. In the last case, the identification of Mycobacterium tuberculosis was made in samples of bronchoalveolar lavage and urine; cervical, axillary and inguinal ultrasound confirmed the existence of ganglionar enlargement, interpreted as being secondary. All the patients were HIV negative.

Discussion: The clinical cases presented show the wide variety of possible pulmonary manifestations of tuberculosis infection and subsequent complications, as well as the complexity of its diagnosis and therapeutic management. The miliary tuberculosis case demonstrates the tuberculosis as a possible cause of multisystemic severe infection.

Conclusions: Tuberculosis remains an important cause of pulmonary infection. The World Health Organization estimates that more than two billion individuals are infected with this disease worldwide. The infection is associated with an enormous variety of clinical presentations, requiring from the clinician a high grade of suspicion and knowledge in order to promptly consider its diagnosis and initiate the proper investigation and therapeutic management.

A-21
EPIDEMIOLOGICAL ANALYSIS OF BACTERAEMIA IN A COHORT OF PATIENTS WITH BACTERAEMIA AT A SECOND LEVEL HOSPITAL

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Objectives: Bacteraemia (B) accounts for a considerable proportion of all infections and it is associated to mortality and increased hospital costs. The aim of this study is to describe a cohort of patients with B at a second level hospital, to analyze the epidemiological factors of B.

Material and method: Observational study of a cohort of non-paediatric patients with B admitted at a second level hospital. Data collection from clinical records has been done according to a standard protocol. We analysed epidemiological, clinical, microbiological and laboratory data during 2010. Patients with B were identified by review of results of blood cultures from the hospital microbiology laboratory. Bacterial isolation, identification and sensitivity test (Vitek-2; Biomerieux, France) were performed by standard criteria. Mortality was assessed all through hospital stay.

Results: A total of 148 patients with true B were considered (44.6% gram positive bacteria; 48.4% gram negative bacteria and 6.9% C*andida* sp.) The multiresistant bacterias isolated was < 5%. The B distribution was: 55.4% community acquired, 15.5% health care associated and 28.5% nosocomial acquired. The 95.9% of the patients with B come from home and were diagnosed in the emergency service. The incidence of B was 0.85 cases per 1,000 person/year and 31.15 cases per 1,000 hospital admission/year. The sex distribution was 1.4 M/1 W with an age rate of 69.64 ± 14.7 years old. Regarding the comorbility, a 36.6% of the patients with B had an IMC > 30 and a 88.5% had a Mc Cabe-Jackson Index III. The range of hospitalization days was 19.9 ± 17.6 days. The most frequent sepsis focus infection was urinary, and *Escherichia coli* was found to be the most frequent bacteria isolate in blood cultures. The most frequent cause of hospital admission was the septic syndrome (29.8%). The 44% of the patients with B had a Piit punctuation of ≥ 3 points, and a 52% had an APACHE II score ≥ 15 points on their arrival at the emergency area. A 30.4% had a systolic blood pressure of < 100 mmHg, and a 29.05% had a diastolic blood pressure of < 60 mmHg. The most important predisposing factor was found to be central venous system as reached the highest percentage (30.4%). The most frequent complication was the respiratory distress (37.1%). Regarding to the laboratory results, the percentage of an hemoglobin rate < 12 g/dl was 62.8%, and the percentage of leukocitosis ≥ 12.000 cel/mm^3 was 54.7%. A total of 71.6% of patients received an adequate empirical antibiotic treatment and a total of 61.5% also received a correct treatment duration. Mean hospital stay was 20 days in which the mean internal medicine floor stay was 14 days. The Mortality rate was 24% (48.7% for nosocomial B, 29.4% for the B health care associated and 16.4% for the B community acquired). The mortality directly related with the B reached a 11.1%.

Discussion: In the Rafael Mendez University Hospital (RMUH), no differences were found between sex and age distribution of the hospital admission patients with B when comparing with other studies. The incidence in this hospital of B health care associated is lower, as well as the B community acquired, while the incidence observed in this hospital nosocomial B was higher than the incidence found by other authors. Moreover, the mortality rate associated to nosocomial B is remarkably high, probably due to an inadequate empiric antibiotic treatment, a wrong treatment duration or the fact that the patients had a Mc Cabe Jackson I. The incidence of multirresistant bacteria is low in this hospital, hence, this type of bacteria is not probably an important factor related with patients mortality.

Conclusions: In the RMUH, the incidence of B was found to be remarkably high. The gram-bacteria was the most frequent type of bacteria in the blood culture. The incidence of multirresistant bacteria was of low incidence. The high mortality observed for nosocomial B can be probably related with a wrong empiric or duration antibiotic treatment. Also, a Mc Cabe Jackson I or II can be considered an influence factor in the B mortality.

A-22
HCV-HIV CO-INFECTION: THE PROMETHEUS INDEX AS AN INDICATOR OF PATIENT FOR TREATMENT WITH BOCEPREVIR OR TELAPREVIR

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Objectives: Hepatitis C virus (HCV) infection is often present in patients with HIV. HCV is the main cause of end stage liver disease in these patients and it is also a prominent cause of death. Nowadays we have some new pharmacological treatments for this chronic infection, telaprevir and boceprevir. However, these drugs are very expensive and they have to be used only in patients with advanced liver disease. Our objective is to characterize (elastography, IL28b polymorphism and genotype and HCV viral load) our population to know how many people would qualify to use boceprevir or telaprevir drugs.

Material and method: This is a cross-sectional study. All patients seen at our HIV unit during the last two years and with at least a 1-year follow up were recruited for the study. Elastography, polymorphism of IL28b, genotype or HCV and viral load were studied (Prometheus index). Only those with genotype 1 and with grade 3 or 4 of Fibrosis in elastography were eligible to be treated with the new drugs.

Results: 179 patients with HIV infection were analyzed. 101 were HIV-HCV co-infected patients. Of them, 81% were men. The median age was 43 (IQR: 37-46). 88.8% of patients had a detectable HCV RNA. Genotype was done in 81.2% (62.2% presented genotype 1, 1.2% genotype 2, 15.9% genotype 3 and 20.7% genotype 4). The HCV viral load was greater than 800,000 IU/ml in 57%. 5.5% of patients also had HBsAg. IL28B polymorphism was characterized in 55 patients. 38.2% were CC, 58.2% were CT and 3.6% TT. Elastography was done in 67 patients (14.9% showed F0 fibrosis, 29.9% F1, 17.9% F2, 19.4% F3 and 17.9% F4). The Prometheus index median was 60.3% (IQR 32.2-85.7). 11 patients could be treated with the new antiviral therapies (9.9%). All of them have a Prometheus index under 50%.

Discussion: The probability of achieving sustained virological response with classic therapies can be reliably estimated prior to initiation of treatment using an index that includes 4 non invasive parameters, which are VL, genotype, liver stiffness and ILB28 polymorphism. HIV-HVC co-infected patients with a low probability of SVR to interferon plus ribavirin and those who have been already treated without an adequate response may benefit from the addition of direct-acting antiviral agents to their treatment regimen. In our country, these agents can be used for patients with a genotype 1 infection and an advanced liver disease. In our study, 11 patients qualified for this new therapy. Two of them had been already treated with interferon and ribavirin without any response. These new protease inhibitors may be used with a lead-in phase of

pegylated interferon and ribavirin. It is an advantage to assess the early response to therapy before commencing the direct acting antiviral agent. However, none of our patients should be included in a 4-week lead-in strategy, simply because none of them had a Prometheus index above 50%.

Conclusions: HCV remains a major problem in our setting. Prometheus index is a good tool to help the clinician to decide which patient should be treated with PEG-IFN plus RIB or to add direct acting antiviral agents. We have found that at least one out of ten patients should be treated with telaprevir or boceprevir drugs.

A-23
TUBERCULOSIS AND HIV CO-INFECTION: A LOCAL RETROSPECTIVE ANALYSIS TO ADDRESS A GLOBAL PROBLEM

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Objectives: Tuberculosis (TB) remains the second leading cause of death from infectious disease worldwide and people with HIV are 21-34 times more likely to develop active disease than people not infected with the virus. This work aimed to compare the subpopulation with TB/HIV co-infection to seronegative patients with TB, in Matosinhos, a city from Portugal, a medium-incidence TB country.

Material and method: Health records of patients diagnosed with TB between 2005 and 2010, treated in the Pulmonary Diagnosis Center of Matosinhos, were reviewed. Data collection was based on questionnaire application to each patient record, regarding demographical, clinical and treatment data. Differences between groups were considered statistically significant when $p \geq 0.05$ (two-sided).

Results: A total of 455 TB cases were included in the analysis (82% confirmed cases). All TB cases were screened for HIV coinfection. The prevalence of HIV coinfection among TB cases was 15.6%, with a median CD4+ cell count of 10^7/µL. Seropositive patients were more likely to have extrapulmonary involvement (40.8 versus 23% in seronegative patients; OR = 2.3; 95%CI: 1.4-4.0), and the most prevalent presentations were nodal (37.9%), milliary (20.7%) and meningeal (17.2%). Furthermore, the HIV coinfected patients showed more constitutional symptoms at diagnosis (fever, night sweats and fatigue) and confirmed cases were less likely to have positive acid-fast bacillus (AFB) smear (OR = 0.44; 95%CI: 0.24-0.80) and Mantoux test (≥ 5 mm) than seronegative patients. Cavitation in chest X-ray was also less likely in seropositive patients (21.3 versus 47.8% in seronegative patients; OR = 0.3; 95%CI: 0.14-0.62). Drug resistant TB rates were not influenced by HIV (11.5% in TB/HIV- versus 16.7% in TB/HIV+), and the overall rate of multidrug-resistant TB was 1.7%. However, seropositive patients were more likely to discontinue treatment than HIV-negative patients (10.9 vs 1.9%; OR = 6.39; 95%CI: 2.16-18.88).

Discussion: In our city from a medium-incidence TB country (Portugal) all TB cases had HIV serology, an important tool to allow a thorough approach to TB infection (overall, only 80% of TB European patients are routinely screened for HIV coinfection). However, TB/HIV coinfection prevalence in Matosinhos was 15.6%, a value superior to Europe overall prevalence of 6%. TB cases with HIV coinfection were more likely to have extrapulmonary involvement, constitutional symptoms on presentation, negative AFB smears and non-cavitating lung disease. Immunosuppression is probably one of the most important factors accounting for these findings. Furthermore, these patients showed greater treatment drop-out rates, stressing the need for development of effective strategies to adequately treat them. Notwithstanding, seropositive patients showed similar rates of drug resistant TB compared to seronegative cases.

Conclusions: Patients with TB/HIV coinfection are an increasing challenge to physicians. Besides clinical presentation, diagnosis and organ involvement are also different when we consider HIV serology of TB patients. Furthermore, these patients represent an excellent opportunity to overemphasize the need for treatment adhesion, in order to prevent the emergence of drug-resistant TB.

A-24
CLINICAL AND EPIDEMIOLOGICAL STUDY OF INFECTIONS IN ELDERLY PATIENTS ASSISTED IN INTERNAL MEDICINE WARDS IN SPAIN, FOCUSING IN RESPIRATORY TRACT, SKIN AND SOFT TISSUE AND ABDOMINAL INFECTIONS

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Objectives: Ageing is an important characteristic of patients in internal medicine wards (IMWs), and infection diseases are among the most prevalent reasons for their hospitalization. The objective of this work was to find out primary clinical and epidemiological characteristics, as well as outcomes of skin and soft tissue bacterial infections (SSTI), respiratory tract infections (RTI), and abdominal infections (AI) in patients over 65 years of age, as well as their rates related to the total number of patients admitted in IMWs.

Material and method: Multicenter, nationwide, prospective, and epidemiologic study. Clinical, functional (Barthel index), social status (Duke-UNc scale), past medical history, and other epidemiological characteristics of patients of 65 years of age or older, with community acquired SSTI, RTI, or AI were prospectively recorded in two one-month time periods (winter and summer) at each participant centre. The included patients were followed until hospital discharge or at least 60 days from hospital admittance. At each of these time periods, the first 5 patients meeting diagnostic criteria were included for follow-up at each participant centre. The study was approved by the Hospital de Mataró Ethics Committee, according to the International Guidelines for Ethical Review of Epidemiological Studies (Council for the International Organizations of Medical Sciences –CIOMS-, Geneva, 1991).

Results: 50 IMWs took part in the study. During the two study periods, 2689 patients fulfilled diagnostic criteria for infection, 79.2% of which were 65 years of age or older. Among these patients, 638 (30.3%) had a diagnosis of respiratory tract infection, 407 (19.4%) urinary tract infection, 128 (6.1%) SSTI, and 147 (7%) AI, while the rest of patients had been diagnosed with other types of infection. Two hundred and forty-two patients were prospectively followed, 163 of them with RTI (67%), 55 with SSTI (22%) and 35 (14.3%) with AI. Half of these patients were male, with a mean age of 80.7 years. Functional status was low in 40% of these patients, and 23% were at risk of social exclusion. The mean hospital stay was 14.9 days, (2-115); the mean Charlson index was 2.6 (CI: 2.35-2.84); 31.8% (N = 77) of patients had received antibiotic therapy within one month prior to hospitalization. The most frequently prescribed antibiotics in the outpatient setting were beta-lactams 53.4% (39), quinolones 39.7% (N = 29), and macrolides 9.6% (N = 7). Etiologic microorganisms were found in 59% of cases, with S. aureus (MRSA in 42.5% of cases), and P. aeruginosa as the most relevant. ESBL E. Coli was only isolated in 2 cases. Inpatient antibiotic treatment was based on beta-lactams and quinolones in 75.5% and 40.2% of cases,

respectively. Recovery was achieved in 50% of cases, and clinical improvement in 41%. The 30-day mortality rate was 13.5%, and 58% of these deaths were related to infection.

Discussion: Infection is a leading cause of admittance in IMWs. Elderly subjects have different presentations forms and outcomes that merit their study to improve prognosis and health-care resources adaptation.

Conclusions: Infection is a primary cause of IMWs admittance in elderly subjects, with RTIs and UTIs as the most prevalent types of infection. Patients' characteristics may differ depending on the functional, social, and comorbid conditions of each subject. The management of these patients represents an important challenge for IMWs.

This study was sponsorized by Pfizer.

A-25
INFLUENCE OF DESIGN OF DISINFECTABLE NEEDLE-FREE CONNECTORS (DNC) IN CATHETER HUB COLONIZATION RATES AND ITS IMPORTANCE IN THE PREVENTION OF CATHETER-RELATED BLOODSTREAM INFECTION

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Objectives: Our aim was to compare the rates of colonization of central venous and arterial catheters hubs fitted with two types of disinfectable connectors used in critically ill patients.

Material and method: The study included all central venous and arterial catheters maintained for 3 or more days in patients admitted to a polyvalent intensive care unit. Patients were randomized to receive one of two types of DNC: a neutral pressure connector (Microclave, ICU Medical, San Diego, CA) or positive pressure connector (SmartsitePlus, Carefusion, San Diego, CA). Connectors were replaced every 7 days. The main outcome measure was the percentage of positive cultures (> 15 cfu) obtained on swabbing of the catheter hub. Swabs were taken of the central venous catheter medial hub and the arterial hub on days 3 and 7 of use under strictly sterile conditions until catheter withdrawal.

Results: We monitored 146 catheters (81 central venous and 65 arterial) in 70 patients, with a total cumulative risk of 1250 days. There were no cases of catheter-related bloodstream infection. The colonization rates at day 3 of insertion were 13.3% for the neutral pressure device and 10.8% for the positive pressure one. On day 7 of insertion the rates had increased to 16.6% and 17.7% respectively, with no statistically significant differences.

Discussion: Safety in patients requiring DNC use has been a source of controversy. The need to disinfect the connectors before use requires healthcare worker training, a fact that has been interpreted as a limitation of these devices. The results obtained with DNCs have been good in experimental models in which disinfection is correct, and in some studies in which participating nurses have been specifically instructed in their use. Negative experiences following incorporation of these devices into health practice have also been reported, in some cases attributed to unfamiliarity with the device and improper handling. Another subject of discussion, mainly generated from observational cohort studies, focuses on the safety of different connector designs. Some authors have reported increases in catheter-related bloodstream infection rates when the type of device is changed (particularly to positive pressure connectors), after excluding other factors that could contribute to the increase. The results of experimental studies indicate that the connector design is a determinant factor in this regard. Nonetheless, very few prospective studies have analyzed the impact of connector type on the rate of infections as we propose with this study. The absence of differences between the two connector models used in this study can be attributed to close adherence to catheter management recommendations on the part of the health staff. In our ICU, connector disinfection is one of the major points covered in the guidelines for endovascular catheter management, in addition to the choice of the safest insertion site, the technique for sterile insertion, early catheter withdrawal, and feedback strategies.

Conclusions: In our experience, neither the use of positive pressure connectors nor connector replacement every 7 days resulted in significantly more frequent colonization of central venous or arterial connectors.

A-26
HOME INTRAVENOUS ANTIBIOTIC TREATMENT (HIAT) IN A LOCAL HOSPITAL HOME UNIT (HU): A LONG WAY TO GO?

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Objectives: The HIAT is a common practice in the HUs and it is seen as a therapy that provides great benefits to both patients and health care systems. We consider the analysis and spreading of the practice developed by the different UHs very interesting in order to discover additional benefits. This allows the expansion of the services portfolio to other usually non-considered pathologies, keeping an appropriate efficiency. Objectives: retrospective study of the HIAT carried out by a Local Hospital HU to establish its characteristics, compared to those set in the national and international context.

Material and method: Descriptive analysis of HIAT records (47 treatment courses and 40 patients) referred to the HU between August 2011 and April 2012. The bibliographic review for comparison purposes is mainly focused on 3 parameters: Site of infection/most frequent diagnosis. Antibiotics used Route and methods of administration.

Results: The type of infection recorded was very heterogeneous. The most outstanding were the respiratory infection (20%), osteomyelitis on diabetes foot (20%), urinary tract infection (12%) and surgical wounds; while in other national series urinary and respiratory infection constitute up to 75% of the cases. If we draw together all the pathologies coming from the general surgery service, it reaches a 19% in our UH. Ceftriaxone is the most widely used antibiotic in all studies including this one (19%). By contrast imipenem, ertapenem and daptomycin, which scarcely appear in other series, represent 13%, 11% and 6.4% respectively. Most cases, even the most complex ones, were successfully solved at home. The unit's nursing staff administrated all treatments. The national studies do not reflect this piece of information and it is common in other countries the use of other methods, such as self-administration, administration carried out by caregivers, external companies, etc. The administration was mainly through peripheral venous access (85%) in continuous mode –with electronic pump or elastomeric infuser- (36%) and non-continuous mode (65%). This important issue is not usually tackled by the reviewed studies.

Conclusions: Regarding the use of HIAT there are a great variability in national and international series. The observed differences in the details of the therapy are probably a consequence of the prevalence of the pathologies treated by each HU, which is

strongly related with the service providers. Infections from general surgery service and osteomyelitis on diabetes foot gain a relevant role in our HU. Ceftriaxone constitutes the most widely used antibiotic although other once daily drugs such as ertapenem or daptomycin gain a considerable importance. The administration of daptomycin on a daily dose basis allows it to stand as an antibiotic with a great future in HIAT. We would like to emphasize the absence in our area of the self-administration method, which is widely used in other countries such as the USA (60%) or Canada (46%); the need of optimizing resources with patients and caregivers training programs is considered in order to make the self-administration possible.

A-27
REASONS FOR ANTIRRETROVIRAL TREATMENT CHANGES IN SPANISH HIV 1 PATIENTS IN 2011. SWITCH AUDIT STUDY

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Objectives: Until the past decade, immune/viral failure was the main reason for antiretroviral treatment changes. After HAART generalization the management of antiretroviral treatment toxicities was the most prevalent reason for treatment modification. Today, with the advent of new more potent and less toxic drugs as well as more convenient combinations may have changed the situation. We aim to describe the main reasons that today leads to ART changes in HIV+ patients in Spain in the current clinical practice.

Material and method: Multicentre, national, cross-sectional epimiological study. Eligible patients had to be HIV+ > 18 years old and under current ART that was going to be changed by any reason. Patients did sign inform consent. The study consisted in a single visit (change of treatment) in which data on social and demographic characteristics, HIV disease and ARV treatment were collected.

Results: 349 patients were included; mean age: 43.7 + 8.9 y, 70.5% male y 89.1% Caucasian. Main transmission categories were IVDU (36.4%) and heterosexual (36.4%). Mean time from HIV diagnosis was 11.3 + 7.6 y. 59.5% were CDC C category. Median CD4 nadir was: 155 cells/mm^3 and median CD4 at the time of switching was 467 cells/mm^3. 64.1% had undetectable viral load (< 50 cop / ml); 40.1% had HCV or HBV coinfection. Main reasons for treatment change were simplification (40.2%), treatment toxicities (29.2%) and immune/viral failure (20.1%). No significant correlations were found between reason for changing treatment and age, gender, race, nationality and level of education. Simplification was significantly the main reason both in employed and unemployed patients ($p < 0.01$).

Conclusions: Currently, treatment simplification was the most prevalent reason for a change of treatment even in advanced lines of treatment. This is so probably because of the advent of ARV drugs that are more potent and effective, with less toxicity and more convenient. Treatment simplification was significantly the first cause of treatment change in those patients who are currently working or seeking for a job. This highlights the need for simpler regimens that can adapt to an active life.

A-29
HIV INFECTION AND VENOUS THROMBOEMBOLIC DISEASE

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Objectives: Human immunodeficiency virus (HIV) infection has become a worldwide chronic disease. High activity antiretroviral therapy (HAART) has improved life expectancy and long-term HIV-related complications in these patients. There have been recent reports suggesting HIV infection may increase the risk of venous thromboembolic disease (VTED) by mechanisms not thoroughly understood. The aim of this study is to characterize a population of HIV infected patients with a diagnosis of established VTED.

Material and method: This is a descriptive study comprising 14 HIV positive patients diagnosed of VTED at the Hospital Universitario de Fuenlabrada from 2004 through 2010. Congenital and acquired risk factors for VTED were analized, as well as the current immunological status at the time of thrombosis, precedent opportunistic infections, neoplastic disease and inherited prothrombotic conditions.

Results: The incidence of VTED in our HIV population was 3.5%. The patients with VTED were 12 males (85.7%) and 2 females (14.3%), with an average age of 47 ± SD 10 years. The most frequent presentation was PE (42.9%), followed by proximal deep venous thrombosis (28.6%) and distal deep venous thrombosis (14.3%). No risk factor for VTED was identified in 10 patients (71.4%). Immobilization was the precipitating factor in three cases, and use of oral contraceptives in one case. C3 was the most frequent immunological stage (35.7%) at the time of diagnosis, followed by C1 (21.4%). 35.7% of the patients presented a viral load < 40 copies/mL, and CD4 were < 200/mm^3 in half the patients. A prior opportunistic infection was present in 7 patients (50%), 4 with a disseminated cytomegalovirus infection and 3 cases of pulmonary tuberculosis. 2 neoplasms were identified, one Kaposi sarcoma and one extranodal high-grade lymphoma. 64.3% of the patients were on HAART, of whom 50% were on a protease inhibitor. Elevated serum levels of Factor VIII and antiphospholipid antibodies were found in 10 patients (71.4%). An abnormal thrombophilia study was present in 78.6% of patients, the most frequent finding being Protein C deficiency (28.6%), followed by prothrombin gene G20210A mutation (21.5%) and Protein S deficiency (14.3%).

Discussion: The incidence of VTED in our series of HIV patients was 3.5%, higher than that of the general population. In our study the majority of the patients did not have a known risk factor. Most of the thromboembolic events seem to occur in patients with < 200/mm^3 CD4 count levels, and are more frequent in patients suffering from opportunistic infections. An inverse relation between immunological status and thrombosis risk has already been reported in some series. We cannot confirm this relation, since in our study patients presenting with VTED had CD4 count cells over 200/mm^3 as likely as below 200/mm^3. On the other hand, we found a high incidence of thrombophilic conditions. It has been reported that in HIV patients the hypercoagulable state is in relation with a decrease in anticoagulant proteins (AT III, protein C and S), inactivated by the release of microparticles from lymphocyte apoptosis. In our series the thrombophilia study was normal in only 3 patients (21.5%), with a prevalence of protein C and S deficiency ten times higher than that of the general population. Several studies have shown a prevalence of antiphospholipid antibodies of 82-92% in HIV patients, as well as an increase in Factor VIII serum levels, which was also found in our series.

Conclusions: We found a high prevalence of VTED linked with a primary hypercoagulable state in our HIV patients. We believe more

clinical and epidemiological studies are needed to acquire a better knowledge of the mechanism responsible for the hemostasis alterations found in this group of patients, in order to establish appropriate thromboprophylaxis strategies for VTED.

A-30
CORYNEBACTERIUM STRIATUM PROSTHETIC JOINT INFECTION: AN EMERGENT PATHOGEN. THREE CASES SERIES

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Objectives: Corynebacterium striatum is a Gram-positive, aerobic and facultative anaerobic bacillus. It was considered a saprophytic microorganism of skin and mucous membranes, but recently has been implicated in respiratory infections, endocarditis, and less frequently, meningitis, arthritis, and other sites infections. In the last years, a growing number of prosthetic joint infections has been described. Our aim is to analyze this issue.

Material and method: Descriptive study of three consecutive cases of prosthetic knee infection by Corynebacterium striatum occurred in the last six months. The diagnosis was established by culturing samples joint (arthrocentesis and/or surgical specimens). The samples were cultured on blood agar and thioglycolate. The identification was carried out using the API Coryne system (bioMérieux). The sensitivity and resistance spectrum were determinated used the CLSI rules. Prosthetic joint infection was classified using Tsukayama et al modified scale, in: 1) type I or early postsurgical infection (< 1 month after surgery); 2) type II or late postsurgical infection (> 1 month and < 1 year after surgery); 3) type III or hematogenous infection (> 1 year after surgery without symptoms); and 4) type IV or positive culture without prior suspicion of infection.

Results: Case 1: 80-years old male who was undergone total knee arthroplasty replacement in November 2011. Three months later, appears swelling in the knee, performing the diagnosis of late postsurgical infection by arthrocentesis and surgical sampling (joint fluid, synovial, prosthesis, bone-prosthesis interface and bone), which grew Corynebacterium Striatum sensitive to vancomycin, linezolid and tetracycline. It was resistant to penicillin, aminoglycosides, quinolones, macrolides, rifampin and fosfomycin. Case 2: 74 years old woman with left total knee replacement in July 2010. Three months later, noted signs of inflammation in her knee. Empirical treatment was initiated with levofloxacin, and incomplete response was achieving. In December 2011, the diagnosis of late postsurgical infection was established. In the surgical samples, Corynebacterium striatum sensitive to vancomycin, macrolides and linezolid grew up. It was resistant to rifampicin, penicillin, aminoglycosides, quinolones, fosfomycin and tetracycline. Case 3: 55-years old woman who had been treated with left total knee replacement seven years earlier. She develops a hematogenous prosthetic joint infection secondary to cellulitis of the left leg. In surgical specimens grew Corynebacterium striatum sensitive to penicillin, vancomycin, linezolid and tetracycline. It was resistant to rifampicin, aminoglycosides, quinolones, fosfomycin and macrolides. In all three cases monotherapy with linezolid was used, proceeding to prosthetic replacement in two times technique.

Discussion: In the last six months, have been diagnosed three cases of prosthetic joint infection by *Corynebacterium striatum* in our health district. The acquisition was hematogenous mechanism (1) and surgery (2). In all cases, *Corynebacterium striatum* showed a complex sensitivity and resistance spectrum, with difficulty in selecting a suitable antibiotic: good joint penetration, oral presentation and tolerability in prolonged treatment. There are no recommendations in the literature about the most appropriate treatment in these processes; moreover, the usual resistance to rifampicin, macrolides, tetracyclines and fosfomycin leaves us in most cases to use monotherapy with linezolid as only therapeutic option.

Conclusions: It is necessary to deep in the acknowledgment of these infections and to optimize the type and duration of antibiotherapy.

A-31
IMPLANTATION OF AN INTERLEVEL PILOT PROGRAM (PRIMARY CARE/SPECIALIZED CARE) TO REDUCE THE RATE OF LATE DIAGNOSIS IN HIV

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Objectives: Evaluation of implantation of an interlevel pilot program (Primary Care/Specialized Care) to reduce the rate of late diagnosis in HIV in our health area.

Material and method: Study population: health area of Cadiz. Intervention measures: promotion of the realization of a HIV test in situations defined as risk indicators, and to promote their realization in the general population (Primary Care users). Itinerant sessions were performed in the health centres of our health area during January to March of 2011. The absolute number of requests for serology submitted from Primary Care and the characteristics of new HIV cases in 2011 were analyzed, comparing with data from the periods prior to the implantation of the program.

Results: The number of requests for HIV serology submitted from Primary Care was 2,138 in 2010 and 2,551 in 2011, with an increase of 20% after implantation of the program. The number of new HIV cases was 21 in 2009, 31 in 2010 and 18 in 2011. In 2011, 61% of new diagnoses were made in Primary Care, while in 2009 and 2010 this occurred in 50% of cases. The proportion of late diagnosis (< 350 CD4+) observed in the period previous to the implantation of the program was 38-48%, decreasing to 27% after implantation of the same. The proportion of cases with AIDS-defining criteria or < 200 CD4+ was also lower in the post-implantation period (11% in 2011, 29% in 2009 and 2010).

Discussion: In the recent years has seen a change in the profile of patients with a new diagnosis of HIV infection. Consequently, the proportion of patients with late diagnosis is high, which has important implications for disease control both individually and in the context of public health.

Conclusions: The implantation of a program to promote HIV screening in Primary Care could be a useful tool to decrease the rate of late diagnosis in HIV, and patients may benefit from treatment before the immune status becomes unfavourable.

A-32
PROSPECTIVE, OBSERVATIONAL STUDY TO DETERMINE THE IMPROVEMENT IN NEUROPSYCHIATRIC SYMPTOMS AFTER CHANGING THE RESPONSIBLE ANTIRETROVIRAL DRUG TO NEVIRAPINE. THE RELAX STUDY

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Objectives: To evaluate the improvement in psychiatric symptoms attributable to changing the antiretroviral drug responsible for such

Table 1 (A-32)

	Baseline (n = 129)	1 month (n = 112)	3 months (n = 100)	p value	p value
PSQI > 5,significant alteration of sleep	96.9%	60.7%	44%	< 0.001	< 0.001
Anxiety and depression	86.8%	46.4%	32%	< 0.001	< 0.001
Mean score and% of normal somnolence	8.3 ± 4.7 (65.9%)	6 ± 4 (89.3%)	5.5 ± 3.6 (91%)	< 0.001	< 0.001
Compliant patients	65.9%	75.9%	81%	0.036	0.013
Good quality of life	57.5 ± 18.9%	69.8 ± 19.7%	73.6 ± 16.8%	< 0.001	< 0.001

symptoms to nevirapine (NVP), with evaluations at 1 and 3 months after the change. The tools used were a sleep test (Pittsburgh Sleep Quality Index [PSQI]) and Hospital Anxiety and Depression Scale (HADS).

Material and method: Prospective, national and observational study that included HIV-1 patients with: age over 18 years; change of antiretroviral treatment (ART) to nevirapine due to CNS side-effects; a PSQI score > 5; a HADS score ≥ 10 on the day of starting NVP treatment; and no psychoactive drug treatment initiated during the 6 weeks prior to starting treatment with NVP. Other data: clinical and demographic details and administration of the Epworth somnolence scale, the Medical Outcomes Study-short form 30 items (MOS-SF-30) quality of life scale and the Simplified Medication Adherence Questionnaire (SMAQ).

Results: 129 patients were included in the study. The drug changed was efavirenz in 89.9% of cases. Reason for the change: sleep disturbances in 75.2%, anxiety in 65.1%, other psychiatric disturbances in 38.7%, attention disturbances in 31%, and other reasons in 31%; a mean of 2.4 neuropsychiatric disturbances were detected in each patient. The CD4 lymphocyte count rose from 582 ± 261 to 619 ± 299 in the third month. 3 patients had developed an HIV viral load at the end of the study. The differences produced by the change are shown in Table 1. 29 patients withdrew from the study: nevirapine-related toxicity (9); loss to follow-up (7); voluntary withdrawal (4); other reasons (9).

Discussion: The majority of ART are of similar efficacy. The differences between them are largely due to their tolerance/toxicity profiles. In this context, adverse effects involving the central nervous system (CNS) are of particular importance in the NNRTI class and may occur with other antiretroviral drugs. However, nevirapine has only very rarely been associated with these effects.

Conclusions: The study shows that the change to nevirapine from a drug that is causing neuropsychiatric disturbances is effective in resolving those disturbances, with an improvement in all the parameters studied (quality of sleep, anxiety/depression scale, and somnolence). This leads to better adherence and a better quality of life of the patients, with no detriment to their immunological and virological control.

A-33
USEFULNESS OF BLOOD CULTURES IN COMMUNITY-ACQUIRED PNEUMONIA IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Primary objective of this study is to analyze the usefulness of blood cultures in patients hospitalized in an Internal Medicine Department with the diagnosis of community-acquired pneumonia. As secondary objectives, we analyzed the epidemiological features of these patients, the mortality rate and the most frequently isolated microorganisms. Also, we evaluated whether blood cultures were collected in patients with this pathology in our center.

Material and method: Medical records of all patients admitted to Internal Medicine Department with the diagnosis of community-acquired pneumonia (confirmed by X-Ray) during year 2011 were reviewed, and we registered the number of blood cultures collected, microorganisms isolated and the epidemiological features of this patients.

Results: Clinical records of 351 patients were revised. 154 patients (43.9%) were women, with a mean age of 69.14 years (SD 19.31). Blood cultures were collected in 193 (55%) of all patients, and were positive in 15 of them (7.77% of those patients who had blood cultures collected). The most frequently isolated microorganism was Streptococcus pneumoniae (60%). The mortality rate was 6%. The average stay was 8.32 days (SD 11.55).

Discussion: Community-acquired pneumonia is a very common disorder, with an overall rate of 5 to 6 cases per 1000 persons per year. It is associated with a high morbidity and mortality in hospitalized patients. In our study, we observed a low rate (7.77%) of positive blood cultures. Other studies situate this rate in 7 to 16%. Although within the range, this low rate could be due to technical problems in collection or early beginning of antibiotic treatment, considering that we did not take into account whether blood cultures where collected before or after the beginning of antibiotic treatment. Considering this results, the usefulness of blood cultures in hospitalized patients with community-acquired pneumonia is low. However, several studies support blood cultures collection, most of them based in the fact that when positive, they establish a definite diagnosis. Besides, it is a great source for tracking resistance patterns, and it has a widespread use with very few complications. An interesting fact is the number of blood cultures taken in our center. Although we are unable to compare these results with other series, we consider that blood cultures were avoided in a high number (45%) of patients.

Conclusions: The usefulness of blood cultures in community-acquired pneumonia in our center was low, but within the range observed in other studies. Besides, the most frequently isolated microorganism was Streptococcus pneumoniae. According to several studies, this should not be taken as a fact against blood cultures collection, but we should enhance other techniques to obtain microbiological affiliation (sputum, antigens, etc.). In our center, blood cultures were not collected in an elevated number of patients.

A-34
STUDY OF URETHRAL SWABS AT A TERTIARY HOSPITAL. A ONE-YEAR EXPERIENCE

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Objectives: To describe the prevalence of urethral swabs with a positive result and those clinical features more likely related with

them. We also studied the microbiological spectrum and resistance patterns of collected samples.

Material and method: Retrospective review of clinical and microbiological data from all urethral swabs received at our institution during the year 2011. Cases were obtained from the database of the Microbiology Department. Fisher's and T-Student tests were used for statistical analysis.

Results: A total of 535 urethral swabs were analyzed. Mean age of patients was 35.9 years (SD 12.3), 2.8% were diabetic, 9.3% were HIV-infected, and 4.9% and 1.9% had HBV and HCV infection respectively. Sample collection was made by primary care physicians in 279 cases (52%), at the Emergency Department in 129 (24%), by urologists in 61 (11%), and at the Internal Medicine Department in 30 (5.6%). 256 cases (47.85%) had a positive result; 213 of them were monomicrobial. In 105 cases (19.6%) a prior history of sexually transmitted disease (STD) was recorded. Mean ages of patients with positive and negative results were 33.9 and 37.8 years respectively ($p = 0.0002$). The probability of having a positive result was significantly higher among patients with HIV infection (59.5 vs 39.2%; $p = 0.028$), prior history of STD (54.9 vs 37.4%; $p = 0.024$), urethral discharge (49.6 vs 29.9%; $p = 0.004$), and dysuria (47.1 vs 31.5%; $p = 0.031$). The presence of fever, local ulceration or lymphadenopathies did not significantly raise this probability. The most-frequently-found microorganisms were: Chlamydia trachomatis (81 cases), Haemophilus parainfluenzae (65), Neisseria gonorrhoeae (55), Ureaplasma urealyticum (43), Streptococcus agalactiae (33), Staphylococcus aureus (7), Candida albicans (6), Mycoplasma hominis (5), Escherichia coli (3), Haemophilus influenzae (3), Streptococcus disgalactiae (3), Streptococcus pyogenes (2), Enterococcus (1), Neisseria meningitidis (1), and herpes simplex type 1 (1). Susceptibility to Ceftriaxone was found in all cases with both Neisseria gonorrhoeae and Haemophilus parainfluenzae growth and to Penicillin G in all cases with Sreptococcus agalactiae isolation. Regarding Neisseria gonorrhoeae, resistance was found in 67.3% of cases for Penicillin G, 49.1% for Ciprofloxacin, and 67.4% for Tetracycline. Isolation of Chlamydia trachomatis, Haemophilus parainfluenzae and Neisseria gonorrhoeae was found in patients with younger age (mean age 30.1, 33.8, and 32.04 years respectively; $p < 0.005$).

Discussion: There is a significant amount of patients in which a urethral swab is obtained, and about half of them in our series yields a positive result. False-negative cases could also be considered in patients with a previous antibiotic therapy or due to technical errors in sample collection. Organisms like Chlamydia or Neisseria are clearly associated with urethritis, whereas a pathogenic role cannot be so well established in others, such as Streptococcus agalactiae, although they may use this portal of entry for systemic infections.

Conclusions: Urethritis remains as a major clinical and epidemiological problem, with a large number of suspected cases in our area annually. The diagnostic yield of urethral swabs approaches half of cases in our experience. Positive results are more likely to occur in HIV-infected patients, in those with previous STD and in the presence of urethral discharge or dysuria. Patients with a positive result were significantly younger. According to resistance patterns encountered in our series, currently recommended initial antibiotic therapy should still be effective.

A-35
PRESENTATION OF 3 PATIENTS WITH ALVEOLAR HEMORRHAGE AND ARDS INDUCED BY WEIL'S DISEASE

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Objectives: Weil's disease is the icteric form of leptospirosis representing about 10% of the patients infected by leptospira. Weil's disease is characterized by multisystem dysfunction. Over the last decade the incidence of pulmonary involvement has increased up to 70% of the patients. We present three cases of Weil's disease that were complicated with pulmonary hemorrhage and Acute Respiratory Distress Syndrome (ARDS). Different outcome was recorded in these patients.

Material and method: Three patients were admitted to our department within a two-month summer period and diagnosed with Weil's disease. Demographic characteristics, clinical signs and symptoms, laboratory tests, radiologic imaging, treatment and outcome were recorded.

Results: The first patient was a 70 year-old farmer who presented with fever, severe jaundice, thrombocytopenia and ensuing epistaxis. His renal and hepatic laboratory markers were normal. On day 4 the patient established hemoptysis and acute respiratory failure type I due to ARDS. A CT scan of the chest revealed diffuse alveolar hemorrhage and bilateral ground-glass opacities. He required endotracheal intubation and intensive care management. He was treated with iv ceftriaxone. Diagnosis of leptospirosis was suggested by a positive ELISA IgM test. He was discharged the Intensive Care Unit (ICU) 4 days later. 1 -, 3- and 5- month follow-up identified the development of mild restrictive pulmonary disease. The severity of pulmonary involvement contrasted with the absence of renal dysfunction. The second patient, a 60-year-old man who dealt with agricultural works, was admitted to our department because of fever, myalgias and fatigue. His lab tests showed acute renal injury, hepatic impairment and severe jaundice (total bilirubin = 50 mg/dl). On admission day he was transported to ICU due to acute respiratory failure and septic shock. Mechanical ventilatory support was instituted for 16 days. The patient received ceftriaxone and ciprofloxacin. Leptospirosis was confirmed by positive IgM and IgG ELISA test. The CT scan of the chest demonstrated diffuse alveolar infiltrates. The patient fully recovered without any remaining pulmonary lesions. The third patient was a 30-year-old farmer who visited the hospital 10 days after the onset of symptoms. He presented with high fever, dyspnea and jaundice. The lab tests revealed anemia, thrombocytopenia, renal and hepatic impairment. The CT scan of the thorax showed bilateral interstitial infiltrations, ground-glass appearance and pleural effusion. On the second day, the patient developed severe respiratory acidosis. He was admitted to ICU and required respiratory, hemodynamic and renal assistance (hemodialysis). He received ceftriaxone and polymyxin. Leptospirosis was certified by positive ELISA IgM and IgG tests. Death occurred within 7 days of admission due to multiorgan failure.

Discussion: Pulmonary manifestations of Weil's disease may range from mild respiratory symptoms to the presence of ARDS. Alveolar hemorrhage in leptospirosis is secondary to vasculitis with endothelial damage and uncorrelated with inflammation. Our patients exhibited ARDS and respiratory failure, but had different outcome that was possibly related to other disease manifestations. Renal injury, thrombocytopenia and delayed diagnosis are associated with increased morbidity. Although there is some evidence that high doses of corticosteroids may be beneficial in the late phase of ARDS due to leptospirosis, our patients did not receive such therapy, but were treated with appropriate antimicrobial therapy at presentation.

Conclusions: Leptospirosis may be presented as or lead to severe alveolar haemorrhage and ARDS even in the absence of hepatic dysfunction or renal failure. Clinicians should be aware of these manifestations of leptospirosis, especially in endemic areas.

A-36
ACUTE PYELONEPHRITIS IN HOSPITALIZED PATIENTS: USEFULNESS OF BLOOD AND URINE CULTURES IN OUR ENVIRONMENT

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Objectives: Primary objectives of this study are to analyze the collection of blood and urine cultures and to examine which microorganisms are the most frequently isolated in patients diagnosed of acute pyelonephritis in an Internal Medicine Department during a whole year. Secondary objectives were to analyze the epidemiological features of patients diagnosed with pyelonephritis, mortality rate and isolation of extended-spectrum beta-lactamase (ESBL) producing bacteria.

Material and method: Medical records of all patients with the diagnosis of acute pyelonephritis hospitalized in an internal medicine department during year 2011 were reviewed. There were also registered the number of blood and urine cultures collected, its results, and the microorganisms isolated. We analyzed these data with SPSS 18.0.

Results: 176 patients were included in our study. 126 patients (71.6%) were women, with a mean age of 45.61 (SD 19.63). Urine cultures were collected in 160 (90.9%) of all patients, and were positive in 112 (70.0%) of them. Blood cultures were collected in 143 (81.3%) of all patients, and were positive in 36 of them (25.2% of those patients who had blood cultures collected). The most frequently microorganism isolated was Escherichia coli, as well in blood as in urine cultures (75% and 88.4% respectively). Other microorganisms isolated were Klebsiella pneumoniae (4.5%), Enterococcus faecalis and Proteus mirabilis (2.7% each of them), and Staphylococcus saprophyticus (1.8%). 4.5% of isolated microorganisms were ESBL producing bacteria. The average stay was 4.15 days (SD 2.81). None of the patients died during their hospital stay.

Discussion: Acute pyelonephritis is a complicated variant of urinary tract infection, which is one of the most common infectious diseases at all ages, both in men and women, but clearly more frequently in women. Urine culture and antimicrobial susceptibility testing of uropathogens should be performed in all patients with acute pyelonephritis in order to adjust antimicrobial treatment. 30% of our patients did not get any microbial isolation, although most of them had urine cultures collected. These results may come from previously started antibiotic treatment. In our department, 18.7% of patients admitted had no blood cultures collected, while the collection of three blood cultures is recommended in every admitted patient with pyelonephritis. The microbial spectrum of pyelonephritis consists mainly of Escherichia coli (75 to 95 percent depending on the studies), with occasional other species of Enterobacteriaceae, such as Proteus mirabilis and Klebsiella pneumoniae, and Staphylococcus saprophyticus. The rate of ESBL bacteria is increasing with the abuse of antibiotical treatment, but in our sample it still remains quite low.

Conclusions: The percentage of positive cultures in our environment is similar to that in other studies. We should be aware of the importance of blood cultures, as well as urine cultures, for the adjustment of antimicrobial treatment. The isolation of microorganisms helps us in order to avoid broad spectrum antibiotics in sensitive bacteria, so that we can keep ESBL to a minimum. Escherichia coli remains the most commonly isolated microorganism in pyelonephritis.

A-37
ULTRASOUND FINDINGS IN ACUTE PYELONEPHRITIS

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Objectives: Primary objective of this investigation was to analyze the most frequent findings in ultrasound in patients hospitalized in an Internal Medicine Department with diagnosis of acute pyelonephritis, and whether these findings are related with the disorder. As secondary objectives, we registered how often ultrasound test was performed in these patients in our center. We also analyzed the epidemiological features of patients diagnosed with pyelonephritis and mortality rate.

Material and method: We revised medical records of all patients hospitalized in an Internal Medicine Department during year 2011 with diagnosis of acute pyelonephritis and collected ultrasound findings. These data were analyzed using SPSS V.18.

Results: Clinical records of 176 patients were revised. 126 patients (71.6%) were women, with a mean age of 45.61 (SD 19.63). Ultrasound was performed in 111 (63.7%) patients, but 48 of them (42.9%) had a non pathological result. Amongst the other results, lithiases were the most frequent result (21.7%), followed by urinary tract dilation (17.2%), prostate enlargement (14.1%) and pyelonephritis data (10.9%). Only two of the admitted patients wore indwelling urinary catheter. The average stay was 4.15 days (SD 2.81). None of the patients died during their hospital stay.

Discussion: Pyelonephritis is a complicated variant of urinary tract infection, which is one of the most common infectious diseases at all ages, both in men and women, but clearly more frequently in women. Among the diagnostic tests used to study pyelonephritits one of the most useful is ultrasonography. It is of help to evaluate the presence of an underlying anatomic abnormality, to detect a process that may delay response to therapy, or to diagnose a complication of infection. Although there are no clear recommendations for the indication to perform an ultrasonography in pyelonephritis, patients with symptoms beyond 48 to 72 hours after appropriate antibiotic therapy should be explored for complications.

Conclusions: Most patients with pyelonephritis undergo radiologic evaluation of the upper urinary tract withultrasonography. Many abnormalities can be found but, by far, lithiasis is the most common.

A-38
THE VALUE OF NAPROXEN TEST AS A DIAGNOSTIC METHOD TO DIFFERENTIATE CAUSE OF FEVER

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Objectives: Fever of unknown origin is still remains a perplexing problem to both clinicians and investigators. Lysis of fever upon administration of the antipyretics favors a presumptive diagnosis of neoplastic fever. On the contrary, failure of lysis usually points to an infectious etiology. The naproxen test was first described by Chang and Gross in 1984 as a reliable diagnostic method test for differentiation of neoplastic fever from non-neoplastic fever. In addition, several studies in febrile cancer patients have suggested that nonsteroidal anti-inflammatory drugs (NSAIDs) abolish tumor-related fever, as opposed to fever caused by infections. Several authors have advocated using the naproxen test to differentiate neoplastic from non-neoplastic fever in patients presenting with fever of unknown origin. In this study we aimed to determine the

diagnostic value of the naproxen test in patients with a prolonged febrile illness.

Material and method: This study was performed retrospectively on consecutive hospitalized patients due to fever at infectious diseases department. Twenty patients with fever at least for seven days at least 38 ºC, suspected or confirmed infectious, neoplastic and connective tissue disorders were included to study. There should have been no antimicrobial intake for at least 48 hours. Before management of fever, naproxen sodium were administrated 250 mg every 12 hours per orally for two days to all patients.

Results: Median age 38 years, 16 and 4 of them were male and female respectively. Infectious diseases etiology was detected at 15 patients. 12 and 3 of them responded to naproxen test at the first and second days respectively. Although 2 and 1 of the patients with non-infectious etiology responded to naproxen test at first and second days respectively. Two of non-infectious etiology patients remained unanswered.

Discussion: Based on several studies involving febrile cancer patients, naproxen has been proposed as an aid in the differential diagnosis of cause of fever because its antipyretic effect has been presumed to be specific for neoplastic fever. We assessed the value of the naproxen test in an unselected group of patients with a prolonged febrile illness of unknown etiology. It has been reported that antipyretic effect of naproxen on fever in cancer patients was better than patients with infectious etiology.

Conclusions: In this small number, uncontrolled retrospective study we concluded that the naproxen test, does not has diagnostic value in differential diagnosis of fever etiology. Further randomize control, large studies are needed to validate these finding.

A-39
CYTOMEGALOVIRUS REACTIVATION IN ULCERATIVE COLITIS PATIENTS

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Objectives: The spectrum of human illness caused by cytomegalovirus (CMV) is diverse and mostly dependent on the host. Infection in the immunocompetent host is generally asymptomatic. Nevertheless, severe organ specific complications have been reported. Gastrointestinal involvement with CMV can occur in the setting of primary infection, the presence of abnormal mucosal surfaces prior increases the risk. Evidence of gastrointestinal CMV in patients with pre-existing inflammatory bowel disease has been described. Objective: to know the profile of the patients with ulcerative colitis (UC) and CMV in our health area.

Material and method: Descriptive retrospective observational study has been performed in the Hospital Ntra. Sra. del Prado, Talavera de la Reina, Toledo. Data were collected from UC symptomatic patients affected by CMV mucosal infection simultaneously in an endoscopic study. Diagnosis was defined by polymerase chain reaction (PCR) and/or immunohistochemistry (IHC) in biopsy specimens from January 2010 to December 2011.

Results: We took a total of 8 patients at an average age of 48 years old (23-78), 65.5% were male. The time period evolution of the UC was 6 years (0-12). 50% of the cases affected procto-sigmoid colon and the other 50% left hemicolon. In 87.5% (7) the evolution of the UC had been torpid with numerous outbreaks and multiple treatments: 5-ASA 100%, steroids 87.5%, immunomodulators 87.5%, biological therapies 75% and antibiotics 100%. The diagnoses were made by taking colon biopsies. PCR was carried out detecting CMV in 87% and IHC was positive in 37.5%. The CMV IgM serology was negative in 100% of the performed cases. All patients received treatment with oral valganciclovir and clinical improvement was achieved in 87%. However, there was a steroid-naïve patient who was simultaneously diagnosed with UC and CMV who evolved adversely, showing pancolitis and toxic megacolon that leaded him to death. An endoscopic review was done in 4 patients; PCR was maintained positive for CMV however IHC was found negative in all cases.

Discussion: In agreement with other published studies, the factors that seem to favor the reactivation of CMV are the evolution time period and immunosuppressant treatments. However, there might be other factors responsible for reactivating the CMV in naïve patients. Probably these factors, still unknown today, are capable of causing a more aggressive course of the disease. The steroid-naïve patient in our report was a 78 years old (the oldest in our study) and, in contrast to the others patients, he also had an important atherosclerotic involvement. On the other hand, the persistence of the positive PCR and negative IHC in the revised patients seems to indicate that the CMV, like other herpes viruses, could be latent in the tissues after treatment and future reactivations would not be improbable. Non quantitative PCR would not be useful to know if we are dealing with an active infection, IHC would.

Conclusions: 1. Both the evolution time and the immunosuppressive therapies favor the reactivation of CMV. 2. There might be other factors that reactivate the CMV in naïve patients such as the old age and atherosclerosis. 3. The treatment with valganciclovir has been shown to improve the acute infection. Nevertheless, CMV remains latent in gastrointestinal tissues, as it has been demonstrated by post-treatment PCR studies. However it would be necessary to quantify CMV copies. 4. To diagnose the acute disease the IHC analysis would be the most appropriate technique. 5. Further research could identify if a secondary prophylactic treatment should be carried out in this group of patients.

A-40
SPONDYLODISCITIS CAUSED BY ESCHERICHIA COLI

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Objectives: To review patients with spondylodiscitis caused by Escherichia coli.

Material and method: To describe those patients with the diagnosis of spondylodiscitis caused by Escherichia coli, on admission in the Internal Medicine Department, General University Hospital of Ciudad Real, during one year. We analize clinical, microbiological, diagnostic and therapeutic features.

Results: Case 1: 83 year-old male who had been hospitalized and received treatment with iv amoxicillin-clavulanic acid due to a bacteremia caused by E. coli the previous month. This time, the patient was admitted because of a bilateral low back pain, worse with the efforts, with no irradiation and fever up to 39 ºC. Hemocultures were positive to Escherichia coli, nalidixic acid resistant. Uroculture were also positive to E. coli. A CT-scan showed disc space narrowing at T11-T12, with a soft tissue mass associated, suggesting spondylodiscitis. The MRI confirmed the diagnosis. A treatment with ceftriaxone was iniciated. Case 2: 78 year-old male. The patient was admitted in our department because of fever and chills. Three days later the patient complains about low back pain. In the hemoculture grew E. coli multisensitive to antibiotics. Because of persistent low back pain, MRI was done, and showed cortical lysis at the lower face of L2 and the upper face of L3. There

was also a small subligamentary abscess L2-L3. Levofloxacin was the antibiotic used.

Discussion: Osteomyelitis is an inflammatory process that affects the vertebra and the intervertebral disc. It is accompanied by bone destruction and it is caused by an infecting microorganism. Its incidence increases with the age, being more frequent over 50 years old. The most important infecting organism is Staphylococcus aureus, followed by Mycobacterium tuberculosis (Pott's disease). Less common, but also important pathogens include Brucella (in Mediterranean countries), and Candida. E. coli is not a typical microorganism and is responsible of this entity in only a 0.7-6.6% of the cases according to the literature. Pathogens can reach the bones of the spine by three basic routes: hematogenous spread, direct inoculation (surgery or trauma) or contiguous spread. The main clinical manifestation is back pain, accompanied or not by fever (up to 50% of the cases), subacute course. The diagnosis is suspected on the basis of clinical features and abnormal imaging tests. When microbiologic tests are negative, it is mandatory to confirm the diagnosis by aspiration of the infected intervertebral disc space or vertebral bone. The most serious complication of vertebral osteomyelitis is neurologic impairment. Most, but not all, patients have gradual improvement in back pain after therapy is begun, and the pain typically disappears. The best way to reduce the morbidity and mortality associated with vertebral osteomyelitis is to limit the time between the onset of symptoms and the initiation of appropriate therapy. The treatment consists on antibiotics as soon as the diagnosis is suspected, given during 8 weeks. Surgery is required in the cases of cord compression, drenage of big abscesses or progression of disease despite adequate treatment.

Conclusions: Spondylodiscitis caused by E. coli is not common. It is most frequently described in patients over 50 years old because of hematogenous spread (tipically: urinary tract infection). Antibiotic treatment must be given early. Surgery is chosen in cases of cord compression, drenage of big abscesses or progression of disease despite adequate treatment.

A-41
SPONDYLODISCITIS, AN UNCOMMON BUT IMPORTANT CLINICAL PROBLEM

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Objectives: To describe a series of spondylodiscitis attended in the Infectious Diseases Unit of an University Tertiary Hospital.

Material and method: This is a retrospective study of 66 patients who were diagnosed of spondylodiscitis in a period of 19 years (1993-2012). We analyzed the epidemiology, etiological diagnosis, clinical presentation, radiological diagnostic tests, and evolution.

Results: The age at admission was 63 ± 15 years, and 65.2% were male. Sixty per cent came from rural area. Nine patients were immunocompromised, other nine had spinal surgery in the previous 6 months and twenty-two had a documented infection in the previous two months. Regarding microbiological studies, blood cultures were positive in 29/59 cases (50%) and the exudates analysis was diagnostic in 14/37 cases (28%). In 68% of patients different microorganisms were isolated: twenty-five GPC (S. aureus/20% S. coagulase negative/13%, E. faecalis/7.7%, Streptococcus spp/ 4.6%), seven GNB (E. coli 6%), seven M. tuberculosis/9%, two Brucella spp/3%, one C. burnetti/1.5% and one C. albicans/1.5%. Clinical data: The mean duration of symptoms was 90.2 days. The most frequent were: pain (92.3%), fever (54.5%) and neurological deficit (32.3%). There were significant differences in mean duration of symptoms according to the microbiological aetiologies: M. tuberculosis (275 days), Candida spp. (270 days), unknown-aetiology (89 days), Gram-positive cocci (GPC) (62 days), Coxiella burnetii (45 days), Gram negative bacilli (GNB) (26 days), and Brucella spp. (15 days). Complications occurred in forty-one patients: paravertebral abscess (35%), psoas abscess (25%), extradural-epidural abscess (17.5%) and valvular endocarditis (12.5%). Radiological diagnosis: The images tests most frequently used were plain radiography (100%), MRI (82%), and scintigraphy (48%). Evolution: Forty seven per cent of patients required surgery, and 9% were admitted to the intensive care unit. Only one patient died.

Discussion: Our experience is quite similar to the reported in the literature. There are a male predominance and a mean age of 60-70 years. The clinical presentation is usually subacute (mean duration of symptoms of 90.2 days). Because the symptomathology is nonspecific, it is very important to suspect it to get an early and correct diagnosis. In our series, the most common aetiology was S. aureus, although tuberculosis continues to have a significant impact. By other hand, a significant number of cases remained undiagnosed. Regarding microbiological diagnosis, blood cultures has higher performance than the exudates culture. In our opinion, is very important to obtain blood cultures before the beginning of an empirical treatment. As a rule, we think that in patients with heart disease, bacteraemia or infection with gram-positive bacteria is very recommendable to discard endocarditis. Complications are very frequent as local complications (epidural abscess, spinal cord compression and psoas abscess) or distance complications (valvular endocarditis). Near a half of the patients required surgical treatment. In general, the clinical evolution is favourable.

Conclusions: Spondylodiscitis is an uncommon disease but should be suspected in patients with risk factors such as immunodeficiency, previous spine surgery or bacteraemia. It is recommended to do blood cultures before starting empiric antibiotic treatment. This, plus radiological studies, will permit an early and appropriate diagnosis. Although local complications are very uncommon and a half of patients need surgical treatment, the final evolution is usually good.

A-42
REVIEW OF ADMISSIONS WITH SUSPICION OF TUBERCULOSIS IN THE LAST YEAR

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Objectives: To evaluate the admissions with suspected tuberculosis to an Internal Medicine unit with respiratory isolation beds over the past year.

Material and method: Our unit depends on the Internal Medicine Department. For many years, the number of admissions of patients with tuberculosis infection has been high, due to the availability of respiratory isolation rooms with negative pressure, necessary for the diagnosis and treatment of this pathology. We retrospectively reviewed all admissions to our unit during the past year (from May 1st, 2011 until April 30th, 2012) who were derived with the request of "ruling out tuberculosis" or similar. The preliminary diagnostic was made in most cases upon admission of the patients to the Emergency Department. In few cases, patients were derived for study from other hospital services.

Results: We found a total of 27 cases with an initial suspicion of tuberculosis. Pulmonary tuberculosis was the most common in 85% of patients, although other locations such as lymph node tuberculosis, spondylodiscitis, peritoneal tuberculosis, or tuberculous meningitis were also identified. 60% were male, with a

mean age of 46 years; nine patients were immigrants, 7 from Central and South America, and 2 from Eastern Europe. The main symptom was haemoptysis, followed by fever of more than two weeks of evolution, with or without pathology lesions suggestive of pulmonary tuberculosis on chest X-ray, (test made on all patients upon admission). In patients having productive cough, sputum was collected for culture and staining for acid-fast bacilli, in a first determination in the Emergency Department, being positive in less than 25% (6). Once in our unit, we systematically proceeded to the completion of three daily serial cultures of urine samples (27) and sputum (in patients having productive cough, 21). If the suspicion was high and cultures were negative, a bronchoscope is carried out. Mantoux test was also performed in all patients, with positive results in 50% of cases. The main risk factor identified was alcohol (40% of the patients) being or not homeless; its place of origin (33% immigrants); HIV co-infection (20%); previous contact with tuberculosis, personal history or family member (10%); or history of malignancy disease (10%). We confirmed the diagnosis in 16 cases. The treatment of choice was with four drugs, according to current Spanish guidelines. We performed the study of resistances in all the obtained positive samples: resistance was found to a drug used in the treatment of choice in only two patients. Patients were referred to the outpatient clinic where they were reviewed, but only 22 patients attended the appointments. We used the directly observed treatment program in 2 patients who were required for different reasons.

Discussion: In our study the likelihood of success in the diagnosis is not very high because too much attention is paid to the most common symptoms (haemoptysis and prolonged fever) and risk factors, rather than to the diagnostic tests at admission time (sputum culture and chest radiography). We believe it is important to conduct systematic studies to rule out this disease: high number of samples, Mantoux, even invasive techniques such as bronchoscope or puncture-aspiration (PAAF) of the lesion. Likewise we highlight the significant number of immigrant patients who have been diagnosed with this pathology, but we found a low incidence of resistance to treatment.

Conclusions: The likelihood of success with an admission with suspected tuberculosis is intermediate. Risk factors associated with suspected tuberculosis are alcoholism, homelessness, immigration and HIV. The risk of resistant tuberculosis in our area is low (< 5%).

A-43
AMBULATORY BLOOD PRESSURE MONITORING: ARE VIH PATIENTS MORE HYPERTENSIVE THAN THE GENERAL POPULATION?

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Objectives: The goal of our survey was to determine the prevalence of hypertension in VIH-patients through clinic blood pressure measurement and ambulatory blood pressure monitoring.

Material and method: We designed a prospective survey with a group of VIH patients from Huelva Provincial Prison, formerly treated by the Infanta Elena Hospital Department of Infectious Diseases in the city of Huelva. Scope of the survey: Huelva Provincial Prison is located in the southwest of Andalusia, Spain. The Infectious Disease Department of the Infanta Elena Hospital in Huelva provides specialized care to VIH patients through the sanitary module located in the penitentiary and the hospital admission module in Infanta Elena Hospital. Patients: Ninety-eight adult VIH patients were gathered from the Provincial Prison of Huelva. Inclusion criteria: VIH-Infected patients over 18 who signed the informed consent to participate in the survey which was approved by the Research Committee Penitentiary Institutions. Exclusion criteria: Patients with secondary hypertension, chronic use of illegal drugs (cocaine or amphetamines), those ones who did not sign the informed consent, those ones with an arm circumference larger than 42 cm (16.53 inches), those ones with atrial fibrillation or those who simply refused to participate in the survey. Blood pressure measurements: According to the recommendations of the European of Cardiology and ESH. The first measurement was carried out after 5 minutes of complete rest. Three pressure measurements were taken every 2 minutes. For ambulatory blood pressure measurement we used a validated and calibrated monitor, Spacelab model 90207.

Results: 98 patients were included in our survey. Ambulatory blood pressure measurement was performed in 72 patients and 26 rejected the procedure. The prevalence of clinical hypertension after a single measurement was 15.3%. The prevalence of clinical hypertension after two measurements, taking the average of 1st and 2nd, was 11.1%. The prevalence of clinical hypertension after three measurements, taking the average 1st, 2nd and 3rd resulted 12.5%. The prevalence of hypertension, taking the average of 2nd and 3rd, the value was 11.1%. The prevalence of hypertension after ABPM was 11.1%. Considering the 1st measurement for the diagnosis of hypertension, there are 36.4% (4/11) of the patients with white coat hypertension and 1.6% (1/61) with masked hypertension. If we consider the average of 1st and 2nd, it decreases to 12.5% (1/8) with white coat hypertension and 1.5% (1/64) with masked hypertension. With the meaning of 1st, 2nd and 3rd white coat prevalence is 11.1% (1/9) and masked hypertension disappears. The patients' average age was 43 years old, 7.1% were women. 28.6% suffered from AIDS. The average level of CD4 was 437 cell/mm^3. 20,973.69 mean viral load. Hepatitis C virus infection was 85.7%.

Discussion: The prevalence of hypertension in VIH-patients is not clearly defined. There are surveys pro and against a higher prevalence of hypertension among these patients. The surveys range from 5.2% to 36%. The prevalence of hypertension in the general population is 30% higher than what we found in our survey.

Conclusions: The estimated prevalence of hypertension by ABPM in VIH patients is 11.1%. Measuring clinic blood pressure three consecutive times and taking the average of 2nd and 3rd measurements avoid masked hypertension and isolated clinical hypertension values.

A-44
HEPATITIS C VIRUS GENOTYPES IN THE HIV-INFECTED PATIENTS

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Objectives: Genotype is a relevant prognostic factor and a key determinant of treatment in hepatitis C virus (HCV) infection. While subtype, of at least genotype 1, plays a role in resistance to the virus, so it will probably be taken into account in the treatment of HCV infection in the near future. As genotype and subtype prevalence substantially vary among communities, knowledge in this field is necessary to adequately plan management strategies in every region.

Material and method: Cross-sectional study to assess and report prevalence of genotype and subtype of HCV of all patients who were performed those tests in the province of Castellon, Spain, from January 1, 2006 through December 15, 2011. A logistic regression analysis is carried to assess the relationship of basic demographic data with infection with genotype 1 or other genotype of HCV.

Results: A total 1764 patients are included. Mean of age is 43.9 ± 12.4 years; 1266 (71.8%) are male, and 487 (27.6%) are HIV coinfected; 2007 is the year with the largest number of patients included: 367 (20.8% of the total). The result of the test is indeterminate in 185 (10.5%) patients. Of 1579 patients with available result, 1066 (67.5%) have genotype 1, 262 (16.8%) genotype 3 and 176 (11.1%) genotype 4. Of the 1050 patients with genotype 1 in whom virus subtype is determined, 544 (51.8%) have subtype 1b and 487 (46.4%) have subtype 1a, while 19 (1.8%) have mixed subtypes. An association is found between HIV coinfection and HCV infection with genotype other than 1 virus (p = 0.048).

Conclusions: Genotype 1 is less prevalent in the HIV-infected populations than in the HIV-non-infected population.

A-45
RELATIVE BRADICARDIA AS A CLINICAL PATTERN. ANALYSIS OF PREVALENCE AND ETIOLOGICAL SPECTRUM

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Objectives: To know the prevalence of relative bradycardia (RB) among febrile patients attended at the Emergency Department and the causes that lead to this clinical finding.

Material and method: Retrospective review of clinical records of all consecutive patients presenting with fever. RB was considered according to previously published criteria: Age > 13 years or more, temperature > 102 ºF or more, simultaneous measurement of pulse and temperature, normal sinus rhythm, absence of heart-rate-lowering medication and a heart rate > 10 beats per minute below the expected physiological response.

Results: During a six-month period a total of 218 patients (111 females, 107 males) aged 13 years or more and with a body temperature of 102 ºF (38.9 ºC) or more were collected. Mean age was 52.1 years (SD 22.7). Patients had a history of diabetes mellitus in 14.7% of cases, smoking in 29.4%, alcohol consumption in 12.8%, arterial hypertension in 34.9%, HIV infection in 6.9%, use of glucocorticoids in 7.8%, and known heart disease in 15.6%. From total of cases, 109 patients (50%) met criteria for RB. Among patients with RB, an infectious disease was found in 101 cases (92.7%). The main clinical infectious syndromes associated with this condition were genitourinary tract infection (26.6%), non-tuberculous respiratory tract infection (22.0%), gastrointestinal infection (9.2%), skin and soft tissue infection (8.3%), ORL infection (7.3%), viral infection (4.6%), tuberculosis (3.7%), hepatobiliary infection (2.8%), and febrile neutropenia (2.8%). Non-infectious diagnoses were: fever without an overt infectious source (4 cases), drug-induced fever (2), myeloma (1), and alcohol intoxication (1). In 38 cases (34.9%) at least one microorganism was detected either by culture, direct microscopic examination or serologic or genetic techniques. Microbiological agents found were: Escherichia coli (14 cases), coagulase-negative Staphylococcus (6), Mycobacterium tuberculosis (4), Klebsiella pneumoniae (4), Staphylococcus aureus (4), Epstein-Barr virus (2), Cytomegalovirus (2), Streptococcus pneumoniae (2), Shigella sonnei (1), Morganella morganii (1), and Bacteroides spp. (1). There were no differences regarding sex or mean age between patients with and without RB (51.8 and 52.3 years respectively, p = 0.884). As for clinical conditions of patients, only the presence of a previously known heart disease showed a decrease in the likelihood of having RB (32.4% vs 53.3%, p = 0.0389).

Discussion: According to our results, RB is present in half of febrile patients attended at the Emergency Department. In previous reports this finding has been associated with gram-negative intracellular microorganisms, but many other agents can be involved. Although RB is thought to be more frequent in certain infections, such as those produced by Legionella, Chlamydia pneumoniae or Salmonella typhi, it does not seem to be an aid for making presumptive diagnoses in view of the wide spectrum of clinical syndromes and microorganisms found in our study.

Conclusions: In our experience, RB is a frequent clinical finding among febrile patients. The most frequent diagnoses were genitourinary and non-tuberculous respiratory tract infection. Most cases are associated with an infectious disease, but no specific association regarding clinical syndromes or microorganisms could be found. The appearance of this finding is less likely in patients with a prior history of heart disease.

A-46
BACTEREMIA CAUSED BY MULTIRESISTANT MICROORGANISMS: THREE YEARS STUDY

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Objectives: Describe the characteristics of bacteremia because of multiresistant pathogens, and factors related to the origin of infection (nosocomial, community-acquired, or health care-associated).

Material and method: 89 patients diagnosed with bacteremia because of multiresistant bacteria (resistance to three or more families of antibiotics), were included in our study. Patients were diagnosed in Hospital of Denia (Alicante), between February 2009 and April 2012. The studied variables were age, gender, length of stay, death, infection risk factors, medical history, hospital unit of admission, isolated germ, and treatment given. Statistical analysis was performed by SPSS 18.0.

Results: There were 72 isolates. The mean age was 68.38 years (range 15-95). 73.6% were male. The isolates were: E. coli extended-spectrum-betalactamase (ESBL) 44.4%, Methicillin-resistant S. aureus (MRSA) 29.2%, K. pneumoniae ESBL 12.5%, *S. marcescens* 9.7%, and P. aeruginosa carbapenem-resistant (carbapenem-R) 4.2%. There were no bacteremia by multiresistant A. baumanni. Hospital units of origin were: Internal Medicine 41.2%, Emergency Room (ER) 22.1%, Intensive Care Unit (ICU) 17.6%, Surgery 8.8%, Urology 5.9%, and Ear-Nose-Throat Unit (ENT), Home Care Services (HCS) and Traumatology 1.5%. Regarding risk factors for infection we observed: catheter insertion 76.1%, urinary catheter 31.3%, previous surgery 34.3%, TPN (total parenteral nutrition) 19.4%, orotracheal intubation (OTI) 25.44%, pacemaker 7.5% and stent 10.4%. Distribution of germs in each unit was: Internal M. (E. *coli* ESBL 53.6%, MRSA 39.3%, K. pneumoniae ESBL 3.6%, S. marcescens 3.6%), ICU (K. pneumoniae ESBL 50%, MRSA 16.7%, S. marcescens 16.7%, E. coli ESBL and P. *aeruginosa* 8.3%), Surgery (P. aeruginosa 33.3%, E. coli ESBL 33.3%, S. marcescens 33.3%), ER (MRSA 40%, E. coli ESBL 46.7%, K. pneumoniae 6.7%, S. marcescens 6.7%), Urology (E. coli ESBL 100%), ENT (S. marcescens 100%), Traumatology (E. coli ESBL 100%), and HCS (MRSA 100%). As for the origin of bacteremia, 46.7% were nosocomial infections, 40% associated with health care, and 13.3% community-adquired bacteremia. Mortality in each of them was 42.9% in the nosocomial origin, and 0% in community and health-care associated infections. As for factors related to the origin of bacteremia, there was a statistically significant relationship with the isolated germ (p < 0.05), admission in the previous 6 months (p < 0.05), long stay at hospital (p < 0.001), and needing of OTI (p < 0.05), unrelated to

the other studied factors. Also there was a statistically significant relationship between the origin of bacteremia and mortality ($p < 0.05$).

Discussion: In our study the Service with a larger number of isolates was Internal Medicine. As in the literature, the most common risk factor in our patients was the vein catheter insertion, followed by urinary catheter and previous surgery. As expected, the most common etiology was nosocomial, followed by health care-associated and community acquired, these last 2 with mortality rate 0%. Risk factors for acquiring this type of infection is the long stay at hospital, admission in the hospital the previous 6 months, and isolated microorganism. It was also observed in our study, a relationship between the risk of infection with K. pneumoniae in the case of OTI, and MRSA in the case of patients who have undergone previous surgery, so we must think of this background to establish appropriate empirical antibiotic treatment.

Conclusions: The most common risk factor for acquisition of infection was venous catheter insertion. The most common cause of bacteremia in our hospital was nosocomial, with the highest mortality, and therefore poor prognosis. OTI is a risk factor for K. pneumoniae infection, and previous surgery for MRSA infection.

A-47
SEVERE LEPTOSPIROSIS IN A DISTRICT HOSPITAL IN THE REGION OF ASTURIAS

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Objectives: Describe the clinical and epidemiological characteristics of patients admitted in a district hospital with the diagnosis of leptospirosis between the period of 2003 to 2011.

Material and method: A retrospective and descriptive study of patients admitted in our hospital during the period from 2003 to 2011 with compatible clinical and positive serology for Leptospira IgM by ELISA. Epidemiological data, clinical manifestations, reasons for admission to ICU, APACHE-II (Acute Physiology and Chronic Health Evaluation) score on admission to ICU, treatment, average length of stay and clinical evolution were collected.

Results: 11 cases of leptospirosis were identified, 9 males (82%) and 2 women (18%). The median age was 51 years (29-72). There were risk factors in 63.63% of cases: 4 patients lived in rural areas in contact with animals, 1 suffered a rat bite, 1 was a miner and another in contact with residual waters. None of the cases had recently travelled abroad or practiced watersports. 5 cases appeared in summer, whilst 2 in each of the other seasons. The average duration of symptoms before going to the Hospital was 6.8 days. The 63.6% of patients (7) were admitted to the Internal Medicine ward, 18.2% (2) to ICU, 1 in Nephrology and 1 was followed up in the Internal Medicine outpatient clinic. The 81.8% (9) were cases of Weil syndrome and only 18.2% (2) as anicteric leptospirosis. The 9 cases of Weil syndrome, 8 were admitted to ICU and the other to Nephrology. The most frequent clinical manifestations were: fever (91%), myalgia (64%), haemorrhage (64%), jaundice (64%), abdominal pain (45.45%), headache (34%), chills (28%), cough (28%), rash (28%), diarrhea (18%), splenomegaly (18%), dyspnea (18%), chest pain (18%), nausea and vomiting (18%), and pharyngitis (9%). The main reasons for ICU admission were the coexistence of SIRS, renal failure and hypotension. On ICU admission the mean APACHE-II score was 23 (9-56) which corresponds to an average of 40% predicted mortality (range 9.9-99). On ICU admission 6 patients presented severe sepsis and 2 septic shock. Hemorrhagic manifestations occurred in 72.7% of the cases of leptospirosis (8), in the form of conjunctival, gastrointestinal, urinary, epistaxis, petequial injuries, hemoptysis, alveolar hemorrhage and a case of hemorrhagic shock by hemoperitoneum secondary to spontaneous splenic rupture. Hepatorenal involvement in 72.7% (8) and 4 associated oliguria, were 2 of them precised extrarrenal filtration techniques, and all patients recovered their kidney function on discharge. Pulmonary manifestations in 36.4% (4), such as cough, chest pain, massive hemoptysis with alveolar hemorrhage and respiratory distress with severe respiratory insufficiency (3 required invasive mechanical ventilation, 1 traqueostomy). There was a case of acalculous cholecystitis. 7 patients were treated with ceftriaxone ant 2 with Penicillin G. 5 patients received vasoactive drugs. The average length of hospital stay was 18 days and UCI 13 days. All patients survived.

Discussion: Anicteric leptospirosis is the most common form, however in our study there were fewer cases, probably underdiagnosed due to favourable evolution and self-limiting. As in other studies, the disease was more common in males, and influenced by seasonal changes and rural situation. It is more common in temperate or tropical climates, being also an occupational and recreational hazard for people who work outdoors, with animals or in areas with contaminated water. In our study no patients informed of overseas visits, so it is important not to exclude leptospirosis in the differential diagnosis.

Conclusions: 1. Leptospirosis is not uncommon in our environment. 2. The majority of the cases diagnosed were the more severe form of leptospirosis. 3. It is important to include it in the differential diagnosis of a febrile syndrome with severe sepsis or organ failure. 4. Generally it has a good prognosis with early diagnosis and treatment.

A-48
RETROSPECTIVE ANALYSIS OF CEREBRAL ABSCESSES

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Objectives: Description of the epidemiology, clinical, and microbiological characteristics of cerebral abscesses (CA) attended at the Infectious Diseases Unit of a third level hospital.

Material and method: This is a retrospective study of the patients diagnosed of CA from January 1990 to March 2012. We analyzed the personal data, CA location, pathogenesis, associated infections, causative agents, treatment, and outcome.

Results: The series is composed of 82 patients (57 males and 25 females) with a mean age of 49.4 ± 20.4 years (range, 10-90). In 80.5% of the cases the clinical presentation was as a unique CA, while in 19.5% there were two or more lesions. Location and pathogenesis: The most common locations were frontal (49.3%) and parietal lobes (34.7%). The most probable mechanisms of spreading were: traumatic/surgical, 30 (36.6%), contiguous focus, 26 (31.7%), hematogenous, 17 (20.7%), and cryptogenic 9 (11%). Associated infections: Sinusitis was found in 24.4% of patients, otomastoiditis in 8.5%, meningitis in 17.1%, valvular endocarditis in 9.8%, and pneumonia in 11%. Patients with sinusitis were significantly younger compared with those without sinus involvement (32.1 ± 14.6 vs 54.9 ± 19.0 years, $p = 0.0001$). By other way, patients with post-surgical CA were also older than those without surgery (61.6 ± 16.0 vs 42.7 ± 19.6 years, $p = 0.0001$). Furthermore, they had an isolated CA more frequently than non surgical patients (96.5% vs 71.7%, $p = 0.007$). Microbiological diagnoses: Blood cultures were positive only in 14 cases (17.1%) but final microbiological diagnoses were reached in 66 of them (80.5%). Overall, Streptococcus spp, anaerobic or mixed flora were identified in 29 patients (35.4%),

Staphylococcus. aureus or Staph. coagulase-negative in 24 (29.3%), gram-negative bacilli in 8 (9.8%), and Nocardia spp in 4 (4.9%). In 16 patients (19.5%) the causative agent could not be identified. Furthermore, Staphylococcus spp (Staph. aureus and Staph. coagulase negative) were isolated in 78.3% of post-surgical CA, while Streptococcus spp, anaerobic or mixed infections were isolated in 71% of non post-surgical abscesses (p = 0.001). Treatment and Outcome: Ninety-two percent of patients received surgical treatment plus several different antimicrobials. Only 3 (3.6%) patients died. The mortality of patients with endocarditis is higher than those with no endocarditis (25% vs 1.4%, p = 0.024).

Discussion: Our experience, in terms of age, sex, performance of blood cultures, location and etiology are similar to that described in the international literature. In a high percentage of cases we reached an etiologic diagnosis, but blood cultures have a scarce diagnostic efficacy. We can discriminate two large groups of CA: post-surgery, in older people with a clear predominance of Staphylococcus spp, and those associated with sinusitis or other infections, with a lower age and more prevalence of Streptococcus/anaerobic. A majority of the CA required surgical (and antimicrobial) treatment. The observed mortality is lower than the reported in other studies. The presence of endocarditis is usually associated with more severity.

Conclusions: 1. In our area, post-surgical CA is more frequent in old people. 2. The most frequent form of clinical presentation is usually as a solitary cerebral lesion. 3. Staphylococcus spp is the main etiology. Sinusitis is usually associated with younger age and CA is produced mainly by Streptococcus/anaerobic. 4. Finally, CA global mortality is low, but the patients with concomitant endocarditis have an increased risk of death.

A-50
NINE YEARS OF TUBERCULOSIS: A DESCRIPTIVE STUDY COMPARING IMMIGRANTS AND NATIVE POPULATION IN A MAJORCAN HOSPITAL

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Objectives: To analize the clinical differences of tuberculosis (TBC) between immigrants and native population.

Material and method: We reviewed retrospectively all cases of tuberculosis diagnosed in Son Llàtzer Hospital in Palma de Mallorca between January 2003 and December 2011. We collected demographic and clinical data. For statistical analysis we used SPSS PASW Statistics 18® and Epidat 3.1.

Results: A total of 500 patients were diagnosed of TBC in the time of study. Of these 199 (39.8%) were immigrants. Between immigrants most were Bolivian (29.64%), Senegalese (11.05%) and Nigerian (10.05%). Both native and immigrant cases of TBC trend to increase in time, even though such increase seems to be more pronounced in non-native population. Comparing both groups we have found that immigrants were significantly younger and they had less male predominance. They were also less smokers, alcoholics and parenteral drugs abusers (PDA). Finally they used less immunosuppressive drugs and they had more positive tuberculin test (TT) and positive bacilloscopy results. No differences in treatment resistance, treatment adherence and outcomes were found between groups.

Discussion: Tuberculosis between immigration and native population have been previously compared. Although drug resistance is described to be more frequent in foreign-born population, we found not differences between groups, anyway immigrants were initially treated more frequently with four drugs. They have been considered to lose follow up more frequently that natives, which we have not seen in our population. Immigration has an important impact in the number of tuberculosis patients while native patients also trends to increase in our population. That means that globally the incidence of tuberculosis is growing in our area, unlike described in other studies. In the current contest of financial crisis, the measures applied to health policy in our country don't allow illegal immigrants to access to the public health system. If the previously described trend continues in time, the consequences of such measures can be catastrophic for all the population.

Conclusions: In our population significant differences in TBC resistance, treatment adherence and related mortality have not been found between immigrants and native, so their management should not be different. The number of TBC cases is increasing not only between immigrants but also in native population and current changes in health policy may have serious consequences.

A-52
CLOSTRIDIUM DIFFICILE ASSOCIATED DIARRHEA'S IN AN INTERNAL MEDICINE WARD

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Objectives: Clostridium difficile associated diarrhea's (CDAD) incidence has increased in the last decade. Antibiotic use is the most widely recognized risk factor, closely followed by hospitalization and old age. The goal of this study was to describe the incidence and characteristics of CDAD in hospitalized patients in an internal medicine ward.

Material and method: A retrospective analysis was made. An electronic coding system was used to select inpatients with a diagnosis of "intestinal infection by Clostridium difficile or colitis" or "infectious enteritis and gastroenteritis", between 2007 and 2011; the data was collected from the patients' electronic file.

Results: The selection criteria retrieved 92 cases, 55 of whom had one positive diagnostic test: toxin assays or endoscopy. The average age was 73 years old (range 17-90) and 67% were females. Previous exposure to antibiotics was ascertained in 71% of patients, of which 64% were beta-lactam antibiotics and 18% were quinolones. 19 patients had previous hospital admission in the last 30 days. The toxin assay was positive in 65% and colonoscopy was positive in 45% of cases. Regarding treatment, 56% were treated with metronidazole in monotherapy, 9% with vancomycin in monotherapy and 9% with association of both antibiotics. The average duration of therapy was 11 days. 20% of patients had to be admitted to intensive/intermediate care units due to complications. There were 4 relapses, 3 of which had been treated with metronidazole in monotherapy. In all, 8 patients died during their hospitalization. An annual mean incidence of CDAD of 172/100,000 hospitalizations was obtained; [159/100,000 in 2007 and 256/100,000 in 2011].

Discussion: The incidence of CDAD in the elderly is higher, and the majority of patients were previously exposed to antibiotics, mainly beta-lactams. The main method of diagnosis used was the toxin assay. Nearly half of the patients were treated with metronidazole in monotherapy, and the relapses occurred more frequently with this treatment. Admission to intensive/intermediate care units were needed in a fifth of the patients, an important marker of the seriousness of this condition.

Conclusions: We observed an increased incidence of CDAD in 2011. Probably the criteria use of large spectrum antibiotics will avoid a large number of CDAD and its complications. We believe that early treatment with vancomycin in severe CDAD will improve the outcome of patients.

A-53
EPIDEMIOLOGICAL DIFFERENCES BETWEEN INFLUENZA A VIRUS SUBTYPE H1N1 AND INFLUENZA A VIRUS SUBTYPE H3N1 AMONG HOSPITALIZED PATIENTS IN THE COMPLEJO ASISTENCIAL UNIVERSITARIO DE BURGOS

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Objectives: To analyze the demographic and comorbidity differences among patients affected by influenza A virus subtypes H1N1 (season 2010-2011) and H3N1 (season 2011-2012).

Material and method: In this retrospective cohort study we included 107 hospitalized patients attended in the Internal Medicine and the Pneumology department in a tertiary care hospital during 2010 and 2012. Two groups were compared: the first one included 30 patients affected by influenza A virus subtype H1N1 attended between October 2010 and April 2011, and the second one consists of 77 patients affected by influenza A virus subtype H3N1 attended between October 2011 and April 2012. The diagnosis of influenza was confirmed using the PCR technique both in nasopharyngeal aspiration and throat culture, and serology. Demographic data and comorbidities were also recorded and compared between both groups.

Results: Men and women were equally distributed in both groups (50%). Patients infected by subtype H3N1 were younger (mean age 47.5 years) than those infected by H1N1 were (mean age 68.8 years). Comorbidity analysis included several cardiovascular risk factors that were more prevalent in subtype H3N1 such as hypertension (54.5% vs 30%), diabetes mellitus (24.7% vs 13%) and dyslipidemia (27.3% vs 20%). Smoking was more frequent in subtype H1N1 (36.7% vs 20.8%). Other diseases analyzed such as COPD and congestive heart failure were also more frequent in subtype H3N1 than in H1N1 (40.3% vs 13%) and (27.3% vs 10%) respectively. Asthma was present in a 20% in both groups.

Discussion: Different outbreaks of influenza arise every year. This epidemiologic descriptive study reveals the changing nature of the antigenic properties of influenza viruses. Their subsequent expansion depends upon numerous factors. The morbidity caused by influenza in the general population is substantial. Increased rates of morbidity and mortality occur in older patients and in those with underlying comorbidities. In our study, we have analyzed the epidemiological differences, and we have found a diagnostic age noticeably higher in subtype A H3N1, associated with an increasing comorbidity in these patients.

Conclusions: Subtype H3N1 seems to affect to older population and it is associated with an increase in comorbidity. Age is a preliminary factor regarding the subtype virus which causes the infection.

A-54
RISK FACTORS ASSOCIATED WITH MORTALITY AND HOSPITAL READMISSION IN PATIENTS WITH ESBL-PRODUCING BACTERIA BLOODSTREAM INFECTIONS

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Objectives: The aim of the present study was, on the one hand, to evaluate the incidence of ESBL-producing bacteria bloodstream infections in our hospital and, on the other hand, to analyze risk factors associated with in- hospital and six-month mortality, as well as with readmission in patients admitted for these infections.

Material and method: We conducted a forty-month retrospective cohort study (January of 2008 to April of 2011) using culture databases from Microbiology Service of our hospital (University Hospital of Salamanca) to identify all ESBL-producing bacteria isolated on bloodstream cultures during the study period. We collected social, epidemiological, clinical and analytical data from medical history of each patient. A descriptive study was performed analyzing differences between infections caused by Escherichia coli or Klebsiella pneumoniae. We also analyzed factors associated with in-hospital and six-month mortality. For quantitative variables comparison we used the Student´s t test when two groups were compared and the ANOVA test when more than two groups were compared. For qualitative variables comparison we used the Chi-square test, using Fisher´s exact test when expected frequency was less than 5. SPSS statistical program version 18 was used.

Results: 68 patients were included, 45 (66%) of them were men and the average age was 71.3 (SD = 20.3) years. The average score obtained by applying the Charlson´s index was 3.6 (SD = 2.3) points. The number of cases increased from 13 during 2008 to 24 in 2010. Escherichia coli caused 73.5% of bloodstream infections and Klebsiella pneumoniae was responsible of 26.5% of them. Different risk factors were associated to infections due to each kind of bacteria, urinary tract was the most common infection origin for E. coli infections (47%) and abdominal origin was the most common for K. pneumoniae infections (39%). K. pneumoniae was more frequent on critically ill patients than E. coli (33% vs 4%, p = 0.001) and E. coli healthcare associated infections were more common (50% vs 39%, p = 0.026), none of the K. pneumoniae infections had a community origin. The main risk factor associated to in-hospital mortality was bladder catheterization at admission (p = 0.013). Immunosuppression, neoplasms and chemotherapy were the main statistically significant associated factors to six-month mortality (p < 0.05). The same factors and also a higher score on Charlson's index and previous antibiotic treatment were the main risk factors associated with readmission during the six month period after discharge (p < 0.05).

Discussion: Several studies have shown that immunosuppression and neoplasm are risk factors associated with mortality due to ESBL-producing bacteria bloodstream infections. Appropriate initial antibiotic treatment seems not to increase mortality in these infections, as our study confirms. Previous studies identified venous catheterization and intubation as risk factors associated with short term mortality, by contrast, we find only one factor associated (bladder catheterization). Risk factors for readmission have been poorly studied until now, the present study identifies immunosuppression, neoplasias, comorbidity and previous antibiotic treatment as significant factors in this sense.

Conclusions: ESBL-producing bacteria bloodstream infections incidence is increasing in our healthcare area. Invasive procedures like bladder catheterizations are risk factors associated with higher mortality due this kind of infections. Immunosuppression, neoplasms and chemotherapy are the main risk factors associated with higher six-month mortality and readmission in these patients.

A-56
ASSOCIATION OF TUBERCULOSIS AND LYMPHOMA: A RETROSPECTIVE STUDY FROM 1994 TO 2010

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Objectives: The prevalence of tuberculosis (TB) in Galicia (a region in the northwest of Spain) exceeds the national and European averages. TB may be associated with lymphoma, before, during or

Table 1 (A-56). Summary of the most relevant results

Sex	50% V 50% M	Location of tuberculosis	
Age at diagnosis of lymphoma	72.58 (41-87)	Pulmonary	50%
Months of each diagnostic	20.42 (0-84)	Extrapulmonary	58.3%
Mortality	41.7%	Disseminated	8.3%
Pronostic markers of lymphoma		Diagnosis of tuberculosis	
Low albumin	41.7%	BAAR	33.3%
B2 microglobulin high	50%	Lowenstein culture	75%
Elevated ESR	66.7%	PPD +	16.7%
Anemia	41.7%	Granulomas	16.7%
Elevated LDH	25%	PCR	8.3%
Lymphoma Treatment		TB Treatment	
Treatment with Rituximab	33.3%	3 drugs	66.7%
Corticosteroid	91.7%	4 drugs	25%
Transplant MO	0%		

after this. Although there are cases series associating tuberculosis and hematological diseases in general, we have not found case series of this association with lymphoma specifically. The aim of this study is to evaluate epidemiological, clinical, diagnostic and therapeutic characteristics in diagnosed cases of tuberculosis and lymphoma.

Material and method: A retrospective study of 12 stories between 1994 and 2010, with tuberculosis and lymphoma diagnosis, was made. Diagnosis of tuberculosis was defined as: Ziehl-Nielsen staining, culture Lowenstein, noncaseating granulomas or PCR positive results. Diagnosis of lymphoma was defined as pathological features in tissues.

Results: Between the most relevant results, we describe the concurrent presentation in the diagnosis (50%), lymphoma previous to TB (25%) and TB previous to lymphoma (25%). It was remarkable, the frequency of extrapulmonary tuberculosis (58.3%), Lowenstein culture positivity (75%) and the 100% of non-Hodgkin lymphomas (3 large cell B, 2 gastric MALT lymphoma and 2 immunocytomas). There was only one HIV-positive patient. Mortality was 41.7%, in 2 cases driven by tuberculosis. Other relevant results see Table 1.

Conclusions: Our results suggest a high temporal coincidence in the diagnosis of both conditions (50%) but there are few recorded cases, as in the available literature, where we found only case reports.

A-57
LIVER ABSCESS: AN EXTENDED EXPERIENCE

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Objectives: To learn about the clinical characteristics of liver abscess (LA) diagnosed in patients in our hospital.

Material and method: The medical records of patients diagnosed with LA are reviewed in the Henares Hospital (Coslada, Madrid) in the period since its opening to the present (2008-2012), expanding the experience on the previous review presented at the XXXII National Congress of Internal Medicine, 2011.

Results: It includes a total of 13 patients (8 men and 5 women) with a median age of 64. The cryptogenic origin is set to a total of 9 cases (69%); the other four to urinary sepsis, fibrosing chronic pancreatitis, ulcerative colitis with immunosuppressive medical treatment and advanced/infiltrating colon neoplasia. Among the clinical manifestations we can emphasize that up to 9 patients had fever or low grade fever (69%), 11 concerned right hypochondrium pain and/or epigastrium (85%). Other symptoms were nausea in 4 patients (31%), constitutional syndrome in 3 patients (23%), or diarrhea in 2 patients (15%). From this series of cases 2 patients had 2 or more abscesses (15%) and in 10 of the total patients (77%) the size was greater than 3 cm. The main antibiotic therapy was a Carbapenem in 5 patients (38%), followed by Piperacillin Tazobactam in 3 patients (23%). Other invasive procedures were complementary to antibiotic treatment: surgical drainage in one patient and percutaneous in 7 patients (54%). A total of 9 patients had microbiological isolation, monomicrobiano in 31% of cases (Morganella morganii, Streptococcus viridans, Klebsiella pneumoniae, and Peptostreptococcus) and polymicrobial in 38% (Including some germs to highlight as Gemella morbillorum, Enterococcus faecium and avium, Streptococcus viridans and anginosus or Klebsiella oxytoca). As serious complications noted in this case series, 5 patients (38%) suffered from septic shock in their follow up, not of initial presentation. Only two patients relapsed at discharge. No mortality attributable to LA in the cases presented.

Discussion: The LA is an entity of low incidence in the hospital. According to other series of patients, the LA is predominant in males and its onset occurs during the 5th and 6th decade of life. Despite the increase in submitted cases, it continues the high proportion of cases whose etiology is cryptogenic. Among the personal background only six patients had diabetes mellitus and 1 of them enolic habit to consider; in this series we include the importance of the diseases treated with biologic agents (anti-TNF) and immunosuppressants. It is noteworthy that the classic triad of presentation (fever/low-grade fever, pain in the epigastric/right hypochondrium and jaundice) has low expressiveness. Regarding the etiology from microbiological point of view, new provided cases are more likely to be polymicrobial although there is no history of recent antibiotic takes or differences in comorbidities. Although the mortality rates are estimated at 2-30% in the largest series, there were no death cases in our series. In the extended series the development of septic shock has been more frequent (previous series [12.5%], compared to the current [80%]).

Conclusions: LA remains a diagnostic and therapeutic challenge for doctors, especially in the Emergency Services, place of admission of these patients. High suspicion and appropriate diagnostic tests are essential pillars in order to establish early empiric antibiotic therapy in hopes of percutaneous drainage

techniques if deemed appropriate, to improve the vital prognosis of the patient. The use of new biological therapies can lead us to new risk groups whose early identification may be crucial for the evolution of these patients.

A-58
BACTEREMIAS CAUSED BY ESBL-PRODUCING MICROORGANISMS IN THE LAST TWO YEARS IN THE COMPLEJO ASISTENCIAL DE BURGOS

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Objectives: To analyze the clinical and demographical data of patients who presented positive blood cultures for ESBL-producing enterobacteriaceae and to register the resistance pattern of the isolates and the hospital death rates of these patients.

Material and method: Retrospective study that includes patients admitted in the Complejo Asistencial de Burgos in the years 2010 and 2011 who presented positive cultures for ESBL-producing microorganisms. 30 patients were included. Age, sex, infectious focus, in-hospital stay, department in which they were admitted, infection acquisition site (nosocomial, community-acquired or health care-related) and death rates were registered. Health care-related acquisition was assigned to patients under hemodialysis, under home hospitalization or those who reside in social health centers. Finally, the sensitivity pattern of all the isolates was registered.

Results: The ESBL-producing microorganisms isolated in the blood cultures were E. coli in 28 cases and K. pneumoniae in 2 cases. The infectious focus was urinary in 20 cases (66.66%), respiratory in 3 (10%) cases and abdominal in other 3 (10%) cases. The number of male and female patients was the same. The average age of the patients was 76.56 years (range 52-93 years), and most of them were admitted to the medical wards (66.66%). The infections were classified into nosocomial or health care-related acquisition in 28 patients (93.33%), and the average in-hospital stay was 12.46 days. We only found two cases (6.66%) of strictly community acquired infection. 80% of the isolated strains were not quinolone-sensitive, 66.66% of the strains were Trimethoprim/Sulfamethoxazole resistant and 29 isolated were sensitive to one of the tested aminoglycosides. Out of the 30 analyzed patients, 8 died during the hospitalization in which the bacteremia was acquired (26.66% of the total).

Discussion: Extended-spectrum beta-lactamases are enzymes generally mediated by plasmids and produced by Gram-negative bacteria. They are able to hydrolyze expanded-spectrum cephalosporins and monobactams. These enzymes have been described in E. coli, K. pneumoniae and, to a lesser extent, in other enterobacteriaceae. The first ESBL-producing microorganisms were described in 1983. They hinder the treatment of the infections in which they take place because, usually, the microorganisms that produce them are also resistant to other groups of antibiotics (quinolones or aminoglycosides). In the past, most of the ESBL-producing enterobacteriaceae were K. pneumoniae, and they are associated with epidemic nosocomial outbreaks, frequently in the Intensive Care Units. However, this epidemiological profile has changed with time.

Conclusions: In our patients, the infection mainly had an urinary origin and was acquired in-hospital or for health-care related causes. The infectious symptoms were mainly observed in the medical wards of our center. The main ESBL-producing enterobacteriaceae were E. coli. Our patients presented high in-hospital death rates.

A-59
Q FEVER IN LEÓN: A REPORT OF 32 CASES

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Objectives: Incidence and characteristics of Q fever in our health area. Evaluate the management of this disease that we have done in last 10 years.

Material and method: Retrospective study, which lists all cases with positive Coxiella burnetii serology in the health area of Leon from 2001 to 2011. Data were provided by the microbiology and coding services. We reviewed medical reports, collecting epidemiological, clinical, biochemical, microbiological, treatment and outcome data. We performed a descriptive statistical analysis.

Results: 32 cases with a mean age of 49 ± 19.4 years. 88.2% were male, and have a Charlson comorbidity index of 1 ± 1.57. 75% were diagnosed in the spring and summer. The most common symptom was fever, which affected 97% of the patients studied, followed by others such as musculoskeletal pain (41.2%), cough (29.4%) or dyspnea (14.7%). The most prevalent clinical form was pneumonia, followed by febrile syndrome (40.6%) and hepatitis (9%). Only one case of endorcarditis was described. Diagnosis was made in all cases by determination of acute Coxiella burnetii serology (82%). 24 patients were treated with doxycycline, but in half the cases with inadequate duration (less than 15 days 46%). 21.8% of patients didn't receive any specific antibiotic. From the point of view of evolution, most of the patients had a favourable course, although 2 had recurrent febrile episodes.

Discussion: Q fever is an infrequent infectious disease, caused by Coxiella burnetii. It is usually under diagnosed, because of self-limited forms. It is directly related to milk consumption and contact with contaminated aerosols from domestic animals, so it is more frequent in spring and summer, as was seen in our study. Most patients have epidemiologic risk factors justifying the infection, and live in rural areas, which do not differ from other previous studies in different regions of Spain. The clinical presentation is highly variable. In our study, respiratory forms were the most important, which is consistent with other publications, where we can appreciate that pneumonia is the most common form in the north of Spain. Treatment of patients with Q fever is irregular, and sometimes unnecessary, and many were treated with inappropriate antibiotics, and sometimes not necessary follow-up. This occurs in our study, where nearly half the patients received less than fifteen days treatment.

Conclusions: Q fever is an infectious disease with low incidence in our country, and its associated with animal contact. The most frequent clinical presentation is pneumonia. It has a favourable outcome even without treatment. In our hospital its management is not appropriate.

A-60
SPONDYLODISCITIS – AN 11-YEAR STUDY

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Objectives: Spondylodiscitis is an inflammation of the intervertebral disc related to an underlying infection, usually associated with vertebral osteomyelitis. Clinical features are frequently

nonspecific implying a delay in diagnosis. In elderly, complaints of spinal degenerative osteoarthrosis and osteoporotic vertebral fractures are a confounding factors. As it is important an early diagnosis of this pathology, the detection of the pathogenic agent and the choice of a correct therapy, in order to decrease morbidity and mortality, the authors decided to study the patients admitted in an Internal Medicine Department.

Material and method: Retrospective analysis of patients' records, who had been admitted with spondylodiscitis in the last 11 years. We studied predisposing factors and associated diseases; clinical, laboratorial and radiological changes; therapeutics and outcome.

Results: We analysed 15 patients (8 women), average age 65.5 years. The most frequently associated pathologies were osteoarticular (4), endovenous toxicophilia (3), recent sepsis (3), urinary tract infection (2), tuberculosis in the past (2) and diabetes (2). Nine patients presented with functional disability, 5 had local pain, in 4 positive Lasègue sign was detected, in 3 a heart murmur was present and in 1 a paravertebral mass was palpable. Laboratory findings revealed anaemia in 12 patients, mean reactive C protein was 9 mg/dL and mean erythrocyte sedimentation rate was 92.5 mm in the 1st hour. Spinal magnetic resonance confirmed the diagnosis in 13 patients. Blood cultures were performed in 13 patients (positive in 4, Gram-positive agents), needle biopsy in 11 (positive in 2) and 1 patient was submitted to open biopsy. Urine cultures were positive in 3 patients. Echocardiogram was performed in 4 and signs of endocarditis were detected in 2. Concerning the treatment, 7 patients were treated empirically (average duration 134.9 days, median 55 days) and 7 patients with specific therapy (average duration 92.3 days, median 45 days); in 1 case the treatment was not documented. Regarding the outcome 7 patients were cured, 5 presented with minor neurologic deficits, 1 relapsed and 2 patients died, 1 death related to Spondylodiscitis.

Discussion: The reduced statistical sample provided limited data. However, the clinical and laboratorial changes, as well as the magnetic resonance diagnostic accuracy were similar to the findings in literature. Blood cultures and needle biopsies rendered fewer positive results. Endocarditis was investigated in selected patients, such as infections due to Gram-positive organisms, positive blood cultures and predisposing heart conditions. Concerning therapy, only 2 patients had treatment duration lower than recommended.

Conclusions: Spondylodiscitis is an infrequent diagnosis in an Internal Medicine Department. Back pain complaints should alert for the possibility of this pathology. Efforts should be done in order to obtain microbiological cultures in suspected cases and infectious endocarditis should be investigated in adequate settings. However, treatment was adequate and the majority of patients had a good outcome.

A-61
INCIDENCE OF MARSA IN MURCIA (VEGA ALTA DEL SEGURA)

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Objectives: In our hospital (de la Vega Lorenzo Guirao) we are taking a register about the incidence of MARSA (methicillin-resistant staphylococcus aureus) since 2005. With this analysis we are controlling changes occurred in last year in our population in order to set up control ways. Our patients belong to three towns: Cieza, Abarán and Blanca, with nearly 55.000 habitants and with three nursing home.

Material and method: We use SELENE as informatic tool. This intranet let us to access to medical histories of patients and the selection of them if they have a positive culture in nasal samples. In the same way we can know if our trying of eradication of bacteria is being useful.

Results: Incidence registered of MARSA in our hospital is always above our indicator (0.25) since we are measuring data (2005-2011). Last year (2011) we had 0.4 × 1,000 stays, more or less the same rate that years before. We analysed the incidence for medical or surgical services and we can observe than the meanly proportion of cases occur in internal medicine. In the same way, the percentage of methicillin-resistant in the Staphylococcus isolated in culture have been progressively increasing in the last year until present 60% (2011).

Discussion: MARSA is a big problem worldwide, and, of course, in our region, probably for the important amount of ancients and nursing home that we have. With the analysis of this data we can understand that we have to establish control measures in order to try to stop this epidemic. In this discussion we analysed the different ways that are described and we are using.

Conclusions: With this study we try to transmit that is important to know with is the rate of MARSA in our hospitals as well as our average of culture isolation of this bacteria for trying establish control ways.

A-62
COMMUNITY ACQUIRED PNEUMONIA: A SINGLE-CENTER RETROSPECTIVE STUDY OF HOSPITALIZED PATIENTS DURING A 12 MONTH PERIOD

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Objectives: The authors studied the patient population admitted in Central Hospital Santo António dos Capuchos with the diagnosis of Community Acquired Pneumonia (CAP) during a 12 month period, between January 1st 2010 and December 31st 2010. This study analyses patient demography, in-hospital mortality and CAP etiology. Other clinical, laboratorial and prognostic data was collected for further analyses.

Material and method: We retrospectively reviewed all cases of Pneumonia (defined as diagnosis coding ICD-9: Pneumonia And Influenza, 480-488) admitted in our hospital during 2010 and selected all patients who presented at the Emergency Department with clinical and radiographic de-novo evidence of CAP, as defined by the British Thoracic Society (in Thorax, 2009(64) Supl. III). Data was collected from digital records. The following parameters were analysed: gender, age, immunosupression (defined as previous chemotherapy or radiotherapy, HIV infection, oral steroid treatment or asplenia), length of hospitalization, in-hospital outcome, CAP etiology. Data was analysed using SPSS v.17.

Results: The number of all-cause Pneumonia diagnosis during the study period was 688 of which 334 hospital admissions corresponded to CAP, representing 3.40% of all hospital admission (n = 9,834). Mean age was 68.64 ± 19.49 years; male patients represented 57.80% (mean age 65.39 ± 19.13 years, correspondent female mean age 73.09 ± 19.16 years). Median hospitalization time was 8 days (range 1-109). Twenty percent (n = 60) of the patients had had previous hospitalization in the last 90 days. Immunosupression was present in 24.25% (n = 81) of our study population. Overall in-hospital mortality rate was 23.35% (n = 78) with a mean age 77.79 ± 17.15 years, versus hospital discharged patients mean age of

65.85 ± 19.33 years. Patients sixty-five years or older (≥ 65y) represented 63.77% (n = 213) and had an in-hospital mortality of 30.52% (n = 65); those ≥ 80y represented 33.50% (n = 112) and had an in-hospital mortality of 40.18% (n = 45). Of the deceased patients 83.33% were ≥ 65y. CAP etiology was established in 10.78% (n = 36) of patients. Streptococci was found in 41.67% of cases (n = 15), Influenza with pneumonia in 19.44% (n = 7), Klebsiella pneumoniae 8.33% (n = 3), Aspergillus 8.33% (n = 3), Mycoplasma pneumoniae 5.56% (n = 2), Citomegalovirus 5.56% (n = 2), Meticilin-resistant Staphylococcus aureus 5.56% (n = 2), Pseudomonas 2.78% (n = 1) and 2.78% (n = 1) for Legionella pneumoniae.

Discussion: In Portugal CAP represents about 3% of all hospital admissions/year and 2.66 cases per 1,000 population. As compared to the reference work (RW) [Froes et al, 2003: Community-acquired pneumonia in adults in Mainland Portugal – Incidence and mortality in hospital inpatients between 1998 and 2000] our overall and ≥ 65y mortality rates were higher (RW 17.3% and 21.5% respectively) while age and gender distribution were similar. Streptococci infection remained the most frequent CAP etiologic agent but in our work viral and fungal etiologies were high. Our institution is a reference center for HIV, Oncology and Hemato-oncology and has a growing population of immunosupressed patients; furthermore the H1N1 influenza pandemy in 2010 caused significant Pneumonia admissions. These facts may potentially explain the increased mortality and the CAP etiologies in our study. Further subgroup analyses may clarify these data.

Conclusions: CAP is an ever evolving concept. It is an important cause of morbidity, mortality and hospital admissions. Mortality and etiology are affected by aging, growing immunosupressed patient population and pandemic events such as H1N1.

A-63
PSOAS MUSCLE ABSCESSES, EPIDEMIOLOGY AND DIAGNOSIS

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Objectives: Psoas muscle abscess is a rare entity that must be considered in the differential diagnosis of febrile syndrome. We wanted to analyze the epidemiological characteristics of patients admitted to our hospital diagnosed of psoas muscle abscess.

Material and method: We present a retrospective study of cases of psoas muscle abscesses. We reviewed medical records of adults over 18 years, HIV negative, admitted in our hospital from January 2001 to December 2010.

Results: The number of cases is 15 patients, 11 male (73.3%) and 4 women. The mean age was 66.6 years (SD 15.4). The time elapsed since the onset of symptoms to the establishment of diagnosis varied from 1 to 450 days, with a mean of 52.07 (SD 116.11). The characteristics of the abscesses were, in relation to origin, primary 13.3% and secondary 86.7%. Etiologically, according to the source of the infection, the most frequent are intra-abdominal infections (40%) and bone infections (26.7%). The microbiological filiation was obtained in 12 cases (80%), with culture of the abscess in 8 cases, blood cultures in 2 cases a 1 patient was diagnoses by peritoneal fluid culture. Monomicrobial abscesses represented 53.3%, 7 of them (46.6%) caused by Gram + microorganisms. 8 patients were immunocompetent and 7 patients suffered from any kind of immunosupression (46.7%). The prognosis was satisfactory in most of the cases: complete remission in 11 patients (73.3%). We observed 3 cases of recurrence (20%) and only one immunosuppressed patient died.

Conclusions: Diagnosis of psoas muscle abscess forces to search for a primary infection. The most frequent are intraabdominal infections, especially in immunocompetent patients. Microbiology shows mostly Gram + and monomicrobial abscesses. The prognosis is satisfactory despite the delay in diagnosis.

A-64
TEN YEARS OF ECHINOCOCCOSIS IN CANTABRIA

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Objectives: Echinococcosis is one of the most important zoonotic parasitic diseases of Mediterranean and South American countries. The diagnosis is based essentially in imaging techniques and serological techniques and its treatment continues being eminently surgical, although anti-parasitic drugs are also used. The aim of this work was to review the epidemiological, clinical, radiological, analytic and treatment data of patients with hydatid disease in Cantabria (North of Spain).

Material and method: We retrospectively analyzed all clinical, diagnostic and treatment data of patients diagnosed with echinococcosis from 2001 to 2011. All data were included and processed with the SPSS version 20.0.

Results: Fifty nine patients were included (0.9 cases /100,000 inhabitants/year). Thirty three (55.9%) were male. Mean age was 55.57 years (SD 19.0). Eleven (20.4%) patients presented comorbidities as cancer (3), hepatitis (2), hemolytic anemia, diabetes, renal transplant, neurodegenerative diseases and tuberculosis (1 patient each). Abdominal pain was the initial presentation in 23 (39%) patients, back pain in 1 and incidental finding during abdominal surgery in 1 patient (1.7%). In 26 cases (46.5%) there were no symptoms and the diagnosis was made as incidental finding in imaging techniques. Fever was present only in 3 (5.1%) patients. The liver was the most affected organ with 53 (89.8%) patients. Five (8.5%) cases presented pulmonary lesions. One (1.7%) patient presented vertebral cysts. Peritoneal cysts were observed in 1 (1.7%) patient. Combination therapy (surgery plus anti-helmintic treatment) was received by 20 (33, 9%) patients, surgery alone by 20 (33.9%), fine needle aspiration plus albendazol by 2 (3.4%), and albendazole alone was used in 2 (3.4%) patients. Fifteen (25, 4%) patients did not receive specific treatment (nine of which were calcified cysts). Twenty six patients (44.1%) were from cities in Cantabria, 23 (39%) from the rural area of Cantabria, 4 (6.8%) from other parts of Spain, 3 (5.1%) from other countries, in 3 cases (5.1%) we did not have a record of where the patient was living. Five (8.5%) patients died for complications of their basal illness.

Discussion: The results we found do not differ in matters of age or gender in results found in other studies. Liver alone was predominantly affected in this study similar to previous epidemiological data reported, but in our case at significant higher rates. We did not find any significant relationship between comorbidities and mortality or the diagnosis of echinococcosis.

Conclusions: Echinococcosis is an unusual infection in Northern Spain. Less than half of the patients presented abdominal pain as the initial symptom and the diagnosis was made mainly as incidental finding during imaging techniques. The liver was the most frequently affected organ. Less than 50% of patients received combination therapy with surgery and albendazol. None of the patients died due to echinococcosis.

A-65
RISK FACTORS FOR MORTALITY IN PATIENTS TREATED WITH MEROPENEM PROLONGUED VERSUS BOLUS INFUSION

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Objectives: There is limited data on the effect of meropenem (MEM) prolonged infusion (PI) on mortality. Our main objective was to identify the factors associated to mortality (overall and infection-attributable mortality) among patients treated with PI of MEM (180 minutes) compared to those treated with bolus infusion (30 minutes) in patients admitted to critical care units (CCU) and in general hospital wards (GHW).

Material and method: We conducted a retrospective cohort study of patients who received at least 3 doses of intravenous MEM from October 2000 to November 2010 at the Clínica Universidad de Navarra, Spain. Treatment was adjusted for renal function according to recommendations. We stratified the analysis by place of admission, categorized as CCU or GHW. Logistic regression was used for risk assessment.

Results: We included 956 patients, 520 (54%) admitted to CCU and 426 (46%) to GHW. There were 306 (59%) and 105 (24%) patients treated with PI in CCU and GHW, respectively. A total of 52% had a documented infection, 34% respiratory, 24% intraabdominal, and 8% urinary tract infections. Overall mortality was 21% (31% for CCU and 10% for GHW). Duration of MEM administration in CCU or GHW was not related to overall mortality (OR 1.01, 95%CI 0.99 to 1.00, p = 0.66; OR 1.00, 95%CI 0.99 to 1.01, p = 0.28). However, patients admitted to CCU were nearly twice as likely to die during admission if treated with albumin (OR 1.95, 95%CI 1.18 to 3.21, p = 0.01) or corticosteroids (OR 2, 95%CI 1.24 to 3.23, p < 0.001) or vasoactive drugs (OR 2.48, 95%CI 1.45 to 4.24, p = 0.001) or immunosuppressors (OR 2.13, 95%CI 1.27 to 3.59, p < 0.001), required invasive mechanical ventilation (OR 1.93, 95%CI 1.22 to 3.06, p = 0.01), or a renal replacement technique (OR 1.86, 95%CI 1.08 to 3.17, p < 0.01). The longer admission days, the lower mortality risk (OR 0.91, 95%CI 0.87 to 0.95, p < 0.001). Patients admitted to GHW had higher risk of mortality when treated with albumin (OR 7.49, 95%CI 3.12 to 17.94, p < 0.001) or corticosteroids (OR 2.39, 95%CI 1.03 to 5.54, p < 0.01). Mortality risk was 15 times higher among patients who required the use of noninvasive mechanical ventilation (OR 14.9, 95%CI 3.75 to 59.19, p < 0.001). By contrast, solid organ transplantation was a mortality protective factor in GHW (OR 0.09, 95%CI 0.01 to 0.83, p < 0.01). Infection-attributable mortality was 8% (13% for CCU and 3% for GHW). Duration of MEM administration in CCU or GHW was not related to overall mortality (OR 1.00, 95%CI 0.99 to 1.00, p = 0.97; OR 1.01, 95%CI 0.99 to 1.01, p = 0.16). Among patients admitted to CCU, the probability of death related to infection was 3 times higher among those treated with vasoactive drugs (OR 2.65, 95%CI 1.34 to 5.22, p = 0.01) or corticosteroids (OR 2.49, 95% 1.25 to 4.93, p = 0.01). Non-invasive mechanical ventilation was a risk of infection-related mortality, tripling the appearance of events in these patients (OR 2.94, 95%CI 1.6 to 5.41, p < 0.001). Patients receiving longer antibiotic treatment with MEM were less likely to die due to infection (OR 0.82, 95%CI from 0.77 to 0.88, p < 0.001). Among patients admitted to GHW we found a strong association between death and the use of albumin (OR 11.4, 95%CI 2.27 to 57.23, p < 0.001) and the use of noninvasive mechanical ventilation (OR 31.41, 95%CI 5.49 to 179.72, p < 0.001).

Conclusions: Patients admitted to CCU and treated with corticosteroids or vasoactive drugs or under mechanical ventilation (invasive or noninvasive) have higher risk of either overall mortality or infection attributable mortality. However, patients admitted to GHW have increased risk of both overall and infection attributable mortality when treated with albumin or under noninvasive mechanical ventilation. PI of MEM had no effect on mortality, when compared to intermittent administration of MEM.

A-66
RISK FACTORS OF POORER OUTCOMES IN COMMUNITY ACQUIRED PNEUMONIA DURING PREGNANCY

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Objectives: To study the risk factors implicated in a poorer outcome in community acquired pneumonia during pregnancy.

Material and method: We revised the data from clinical charts of patients discharged from our centre with the diagnosis of community acquired pneumonia during pregnancy between January of 2000 and September of 2011. We registered, at admission, all information about age, weeks of pregnancy, heart rate (HR), systolic blood pressure (SBP), oxyhemoglobin saturation ($SatO_2$), $SatO_2$ divided by the oxygen inspiratory fraction ($SatO_2/FiO_2$), glycemia, uremia, serum creatinine (Cr), natremia, C reactive protein (CRP), temperature, leucocyte count (LC), hemoglobin (Hb) and platelet count (PC). We recorded the data concerning the length of stay (LOS) and length of stay in intensive care unit (ICU). We selected 68 patients meeting our criteria. The patient characteristics are shown in table 1.

Results: The mean LOS was 6.81 days (2-21). None of the 68 patients died. Three patients (4.4%) needed ICU admission. We found statistically significant correlation between platelet count on admission, $SatO_2$ and $SatO_2/FiO_2$ with LOS. We found a very strong statistically significant correlation between leucocyte count, platelet count and hemoglobin with ICU LOS, but this correlation may be biased because of the low incidence of ICU admission. The correlations (Pearson) and their statistically significance are shown in table 2.

Table 1 (A-66). Patient characteristics

	Age	Week of pregnancy	HR	SBP	Temperature (oC)	$SatO_2$ (%)	$SatO_2/FiO_2$
Mean (range)	32.26 (18-44)	28.3 (10-40)	100.34 (59-142)	114.76 (80-140)	37.76 (36-40)	96.44 (80-100)	436.63 (90-476)

Table 2 (A-66). Correlations between SatO2, SaO2/FiO2 and platellets with hospital LOS

	$SatO_2$ (p)	$SatO_2/FiO_2$ (p)	Platellets (p)
Hospital LOS	-0.304 (0.03)	-0.565 (< 0.01)	0.322 (0.01)

Discussion: Pregnant patients with community acquired pneumonia and lower $SatO_2$ or $SatO_2/FiO_2$ had a longer length of hospital stay. A higher platelet count on admission may be related to a longer hospital length of stay reflecting a more intense acute phase reaction.

Conclusions: The LOS in community acquired pneumonia during pregnancy is related to the oxygenation status.

A-67
DIGITAL CLUBBING: A NEW MARKER OF HIV INFECTION?

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Objectives: Digital clubbing (DC) is associated with a variety of diseases including cystic fibrosis, bronchiectasis, cirrhosis, cyanotic heart disease and cancer. Its prevalence in patients with HIV infection has been poorly investigated. The aim of this study was to determine the prevalence of clubbing in a cohort of HIV patients and its possible relation to variables related to HIV infection itself or its associated diseases.

Material and method: Cross-sectional study at a 265-bed hospital which provides specialized care to a population of 165,000 inhabitants, Huelva (Spain). The cohort consists of 369 adult patients whose data are collected at the Hospital Infanta Elena through an electronic medical record (AdvancedHiv®) specifically designed for HIV disease. At the time of cohort inclusion, an informed consent form was obtained for each subject and registered in the informatics application. Clubbing assessment was based on the presence of Schamroth's sign (disappearance of the normal diamond-shaped window observed when dorsal surfaces of terminal phalanges on opposite fingers are opposed). The following qualitative variables were analyzed: sex, age, weight, height, body mass index, years of HIV infection, CDC categories, number of cigarettes smoked per day, CD4 and plasma viral load in the first and last visit, number of antiretroviral treatment regimens, liver function test, hypertension, diabetes, lipodystrophy, hepatitis B or C virus infection. We estimate hepatic fibrosis by the APRI, Forns and FIB4 test or by fibroscan. Qualitative variables were analyzed by means of Chi square test or Fisher's exact test when indicated, whereas quantitative variables were analyzed by means of the Mann-Whitney or the Student's test. Those variables which were statistically significant in univariate analysis were included in a multivariate analysis.

Results: The study included 267 patients of which 49 (18.4,%, 95%CI 14%-23%) had DC. 45 out of 49 (91.8%) patients with clubbing smoke or had been smokers vs 162 out of 217 (74.7%) patients without clubbing (p = 0.009). 40 out of the 49 (81.6%) patients with clubbing belong to the stage C versus 143 out of 217 (65.9%) patients without clubbing (p = 0.032). 42 out of the 47 (89.4%) patients with clubbing had chronic HCV infection versus 142 out of 214 (66.4%) patients without clubbing (p = 0.02). 26 out of 49 patients (53.1%) with clubbing showed cirrhosis compared to 71 out of 216 (32.9%) patients without clubbing (p = 0.008). Other variables were associated with the presence of clubbing in the univariate analysis: male (95.9%) versus female (82.5%), (p = 0.018); weight (64.9 Kg vs 72), (p = 0.001), body mass index (22.1 versus 24.8, p = 0.001), previous history of IDU (77.6% vs 53.9%, p = 0.002), years of HIV infection (19.6 versus 14.5, p = < 0.001).

Discussion: We found an 18% prevalence of clubbing in HIV patients in our study. Lower weight and body mass index were associated with the presence of clubbing in males. A history of drug addiction and a prolonged HIV infection were also associated with the presence of clubbing in males. The presence of clubbing was also associated with HCV chronic infection and cirrhosis measured by noninvasive methods (APRI, Fibroscan, Forns and FIB4).

Conclusions: We found a high prevalence of HIV patients with clubbing. HIV infection should be considered in the differential diagnosis of acquired digital clubbing.

A-68
PRO-INFLAMMATORY MARKERS OF COMMUNITY ACQUIRED PNEUMONIA DURING PREGNANCY ARE RELATED TO POORER OUTCOMES AT BIRTH

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Objectives: To establish a relationship between clinical and laboratory parameters that reflect a pro-inflammatory state with poorer outcomes at birth in pregnant women who had community acquired pneumonia during pregnancy.

Material and method: We revised data from clinical charts of 68 pregnant patients who had community acquired pneumonia (CAP) between January of 2000 and September of 2011, including previous history of chronic lung disease, alcohol consumption, injection drug use, complete blood cell counts at admission and 48 hours later, C reactive protein (CRP), maternal oxyhemoglobin saturation divided between the inspiratory oxygen fraction ($SatO_2/FiO_2$), type of antibiotic treatment and maternal length of stay. We later registered the data of weight at birth, first and fifth minute Apgar test, cord blood pH, fetal mortality, and presence of fetal malformations.

Results: We could only recover data from 64 children of the 68 pregnancies. Twelve pregnancies (17.4%) were delivered by cesarean section. There were 3 preterm deliveries (4.4%) and 2 preterm delivery threats (2.9%) and only one case (1.5%) of fetal death. Two (2.9%) newborns showed symmetrical intrauterine growth restriction. The most frequently used antibiotics for the treatment of community acquired pneumonia were betalactams (62.7%). The statistically significant correlations (Pearson) we found are shown in table 1. We found no statistically significant association between the need of performing a cesarean section, type of antibiotic treatment, previous history of chronic lung disease, alcohol consumption or injection drug use with fetal mortality, presence of fetal malformations, preterm delivery or the need of ICU stay. When considering the pregnancy week when CAP occurred as 2 periods (first period from week 0 to week 19 and a second period from week 20 to the end of pregnancy) there was a statistically significant difference in the newborn´s weight at birth with mean weights of 3,050 g, for the first period, and 3,366.4 g for the second period (95%CI, p = 0.05).

Discussion: Inflammatory markers (leucocyte count) during pregnancy CAP may predict poorer birth outcomes (5th minute Apgar test and weight at birth). Better oxygenation parameters ($SatO_2/FiO_2$) during pregnancy related CAP seems to be correlated with better birth performance tests (Apgar). There may be less negative impact on child weight and fetal cord blood pH if the CAP occurred later during pregnancy.

Conclusions: Pro-inflammatory markers of CAP during pregnancy may be risk factors of poorer outcomes at birth.

Table 1 (A-68). Statistically significant correlations (Pearson)

	Pregnancy week when CAP occurred (p)	Maternal leucocyte count when CAP occurred (p)	Maternal $SatO_2/FiO_2$ when CAP occurred (p)
Weight at birth	0.292 (0.032)	-0.307 (0.024)	ns
1st minute Apgar	ns	ns	0.391 (0.01)
5th minute Apgar	ns	-0.299 (0.03)	0.492 (< 0.01)
Fetal cord blood pH	0.584 (< 0.01)	ns	ns

ns = Non statistically significant correlation.

A-69
CLINICAL SUSPICION OF MEDITERRANEAN SPOTTED FEVER: SERIES OF CASES (2004-2011)

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Objectives: Mediterranean spotted fever is an infection caused by Rickettsia conorii which is transmitted by tick bites, which are highly prevalent in southern Europe. It is characterized by high fever, rash and sometimes a scar at the point of inoculation (black spot). The diagnosis is based on epidemiological and clinical signs and confirmed by serology and immunohistochemistry. Corroborate the etiologic diagnosis in the acute stage is very difficult so to a large clinical suspicion is obliged to initiate empirical antibiotic treatment. Description of the patients seen in internal medicine, in which discharge report consisted diagnosis of Mediterranean spotted fever, from the opening of the Hospital Universitario de Fuenlabrada (HUFLR), located in the south of Madrid in June 2004 to December 2011.

Material and method: descriptive study of diagnosed cases of spotted fever in the HUFLR Mediterranean. The following variables were analyzed epidemiological, clinical and laboratory parameters: age, sex, month of diagnosis, contact with dogs, the appearance of "black spot", presence of rash, clinical manifestations, treatment received, changes in the clinical diagnostic technique. As analyzes: white blood cell count and platelets, transaminases, plasma sodium value.

Results: There were 9 cases with suspicion of Mediterranean spotted fever, three of them in 2011, with a pattern of presentation in months with high temperatures (June-October). These are patients with a mean age 69.59 (range 32-85). Two-thirds (6/9) are male. 78% of cases (7/9) enter (half day admission: 3.4). With respect to the clinic all the cases had developed fever and maculopapular rash termometered. The presence of "black spot" was observed in 6 cases. With respect to other clinical headache in 3 cases, 3 cases only 2 myalgia and presence of lymphadenopathy. Among the analytical data thrombocytopenia in 1 case (11%) (mean: 169,000), absence of leukocytosis in 8/9 (89%), elevated transaminases (GGT and GPT) and hyponatremia in one case (mean, 137). The serology was positive in only 2 cases (22%).. Biopsy was performed in four cases being positive in one case confirmed the diagnosis by PCR, another showed a thrombotic vasculopathy with perivascular inflammation, another was given as viral rash and one was negative. 100% were treated with doxycycline. Except one died of septic shock in which the diagnosis was confirmed by autopsy, all cases had good clinical outcome.

Discussion: Mediterranean spotted fever is an infection caused by Rickettsia conorii which is transmitted by tick bites, which are highly prevalent in southern Europe. It is characterized by high fever, rash and sometimes a scar at the point of inoculation (black spot). The diagnosis is based on epidemiological and clinical signs and confirmed by serology and immunohistochemistry. Corroborate the etiologic diagnosis in the acute stage is very difficult so to a large clinical suspicion is obliged to initiate empirical antibiotic treatment.

Conclusions: The diagnosis is based on clinical suspicion in most cases. Not as common to find thrombocytopenia and hyponatremia but a normal figure of leukocytes and elevated transaminases. Suspecting start empirical antibiotic treatment with doxycycline submitted the most favorable clinical outcome. The presence of black spot is highly suggestive of infection with R. conorii. In our series has shown the limited utility of serology with the majority of negative cases. In our series, biopsy, was useful only to confirm the diagnoses in one of the 10 cases.

A-70
CLINICAL FINDINGS OF ACUTE PARVOVIRUS B19 INFECTION, A SERIES OF 17 ADULT PATIENTS IN A HOSPITAL IN MURCIA (SPAIN)

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Objectives: Describe the most common clinical features and laboratory findings in adult patients with acute Parvovirus B19 infection.

Material and method: We performed a descriptive, cross-sectional retrospective analysis, which included patients diagnosed with acute Parvovirus B19 infection, by positive serum control. This was determined with IgM antibodies by ELISA (ELISA microplate Euroimmun®) in a period of 5 years (January 2008 to May 2012). We included a total of 17 adult patients that were diagnosed in the departments of Rheumatology, Hematology and Internal Medicine. Pregnant patients were not studied due to the lack of Gynecology department in our hospital.

Results: Of the patients studied, 76% were women and 24% male, aged between 21 and 78 years (mean = 44 years). The most frequent clinical manifestations were: arthralgia (65%) and arthritis (53%), asthenia (47%), fever (47%), skin lesions such as hematoma, purpura and rash on trunk and limbs (41%), myalgia (35%), rhinorrhea (29%) and odynophagia (24%). Hemogram alterations were expressed in approximately half of the patients with leukopenia (53%), anemia (41%), and thrombocytopenia (53%). As for the biochemical analytes, results showed an increase of lactate dehydrogenase (LDH) (76%), ALT (53%), AST (47%) and alkaline phosphatase (65%). Only two patients had positive autoantibodies, although these subjects had been previously diagnosed with autoimmune disease.

Discussion: Parvovirus B19 infection is common throughout the world. Mostly known as the virus responsible for the fifth disease, or erythema infectiosum in children, that is characterized by the facial rash in the form of slapped cheeks. In adults it is more prevalent among young women, where the main findings are joint symptoms, as revealed in our results. We have observed skin lesions which are less characteristic than the rash seen in children. These lesions were mild hematomas, and rashes, predominantly in limbs and trunk. The alterations in cell blood count (anemia, leukopenia, and thrombocytopenia) that we observed corroborate previous literature, without identifying any case of transient aplastic

anemia. In a significant amount of subjects, abnormalities in biochemical analytes as LDH, alkaline phosphatase and transaminases, were exposed. In pregnant women, hydrops fetalis and abortions have been described; notwithstanding, we were not able to provide this information in our study, since our hospital does not count with a Gynecology-Obstetrics department. Some series have linked the virus with autoimmune disorders. In our case subjects, we did not find a relationship between Parvovirus B19 infection and autoimmune disorders. Although there have been reports of myocarditis, nephritis, vascultitis, and neurological disorders, we have no reference of these in our study.

Conclusions: In patients (young women) with articular manifestations, nonspecific skin lesions, fever and other flu-like symptoms, along with possible alterations in the hematological series (mild or moderate), and/or liver enzymes, it seems reasonable to determine IgM antibodies in serum, to rule out the possible acute infection of Parvovirus B19.

A-71
ASSESSMENT OF SUITABLE USE OF TIGECYCLINE

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Objectives: Tigecycline is a broad-spectrum antibiotic, recently marketed, with restricted hospital use. We studied the situations where the drug is prescribed, the therapeutic indications, and patient characteristics, in order to assess the effective use of antibiotic. The aim of the study was to analyze the use of tigecycline in our hospital.

Material and method: We collected patients taking tigecycline in 17 months. We analyze the clinical variables, Charlson comorbidity index, therapeutic indications and microbiological isolates. Information was obtained from electronic medical history, and the analysis was performed using SPSS 15.0.

Results: During 17 months, 42 patients were treated with tigecycline, 59.5% were men, the median age was 80 years old; and 31% came from elderly residents. In 73% of the cases, the prescription was made by a medical service; 38% of the total were from internal medicine, 19% surgery, 9.5% digestive, 9.5% vascular surgery, 9.5% intensive care unit, 7.1% traumatology, 2.4% neurology, 2.4% urology and 2.4% oncology. The median Charlson index was 6 points. 42.9% of the patients were diabetics, and 11.9% cirrhotics. The main indications were soft tissue infection and abdominal infection (28% in each one). Other infections were urinary (23.8%), post-surgical (9.5%), pneumonia (4.8%) and other (5.9%). The microorganisms involved in these infections were Gram negatives 26.2%, Gram positives 21.4%, multiresistants 16.7%, ESBL 11.9%, MARS 11.9% and mycobacterias 2.4%; non microorganisms were insolated in 9.5% of the culture. 40.5% of the microbiological isolates were resistant to several antibiotics. In 28.6% of the patients, tigecycline was used empirically; and in 38.1% as an alternative due to allergies to the first choice's antibiotic (81% to penicillin). In cases where antibiotics were administered before tigecycline, carbapenems (31%), vancomycin (21.4%) and quinolones (16.7%), were the greatest. 57.1% received an antibiotic concomitantly, of which 26.2% were aminoglycosides (mainly amikacin) and 19% quinolones. In 57% of the cases, the pattern could be changed after the results of antibiogram came to carbapenems in 16.7%, quinolones in 14.3% and beta-lactams in 7.1%. The median duration of treatment was 9 days. The average stay in hospital was 46 days. 20 patients had adverse reactions, but in no case were severe reactions. The cases in which antibiotics were stopped, was in one patient for adverse reactions (elevated INR), 18 patients by treatment's adjustement and 17 because the pattern ended. 23.8% of patients died during hospitalization.

Discussion: Tigecycline is a new drug wich use is restricted to the hospital. According to the analysis data, it's mainly prescribed in multipathological patients, allergies to other antibiotics or isolates of multiresistant microorganisms. The main indications were infections in soft tissues and abdominal infections.

Conclusions: We can conclude that tigecycline is well used in our hospital for its main indications.

A-72
USE OF URINARY CATHETERIZATION IN AN INTERNAL MEDICINE SERVICE

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Objectives: The main objective was to evaluate the number of indwelling bladder catheters placed among patients admitted in an Internal Medicine ward and the incidence of catheter acquired urinary tract infections (CAUTIs) and other complications. We also aimed to determine risk factors associated to CAUTI and urinary bacterial flora.

Material and method: During a period of 3 months, we conducted a prospective observational study in hospitalized patients in an Internal Medicine ward. Patients were evaluated daily to check for the presence of indwelling catheters, which were indicated by attending physicians. Urine samples were collected on the 1st and 4th day of catheterization and epidemiological, clinical, and analytical data were prospectively recorded. Quantitative variables were compared using the Student´s t test and qualitative variables by means of the χ^2 test, using Fisher's exact test when necessary. SPSS statistical program version 18 was used.

Results: During the study period, 451 patients were admitted to the Internal Medicine ward. Fifty-four of them (12.0%; mean age 79.9 years [SD 11.5], 53.7% males) had an indwelling catheter placed on admission or during hospitalization, for a total of 621 days of catheterization (mean of 11.7 days for each patient). Among patients with catheter, 19 patients (35.2%) came from a nursing home, 9 (16.7%) had a long-term catheterization, 19 (35.2%) were diabetic, 10 (18.5%) had been hospitalized in the previous 3 months and 25 (46.3%) had received antibiotic treatment during the last 3 months. The median score obtained in the Charlson comorbidity scale was 3 (interquartile range [IQR] 3) and the Barthel scale for evaluation of ability in performing activities of daily living was 20 (IQR 60). Thirteen patients (24.1%) had significant bacteriuria on the 4th day of catheterization or earlier and 9 of these patients had CAUTI (1.45 CAUTIs/100 catheter-days). Nine of the 13 patients who had significant bacteriuria (69.2%) were females and 8 (61.5%) lived in a nursing home. The most frequent microorganisms isolated were Enterobacteriaceae (58.3%) followed by Candida spp. Nine patients (16.7%) were diagnosed from sepsis secondary to UTI and 5 patients (9.3%) developed septic shock. Twelve patients (22.2%) who had been catheterized died (22.2%), 6 of them of severe sepsis. Remarkably, patients who had positive urinary cultures as well as those who developed severe sepsis or died had a greater dependence according to the Barthel scale (mean difference > 20 points).

Discussion: In accordance with the current trend in internal medicine, our sample of patients with indwelling bladder catheters is comprised of elderly patients with a high burden of comorbidity, moderate to severe dependence, and frequent use of the health system. In this clinical setting, patients had many underlying risk factors for developing UTIs, such as living at a nursing home, long-term catheterization, diabetes mellitus, prior hospitalization and

antibiotic treatment, and, of note, long-term catheterization. As expected, microorganisms most frequently isolated in urine cultures were Enterobacteriaceae and Candida spp, the latter suggesting a situation of colonization rather than infection. Finally, it should be noted the high frequency of serious complications presented by these patients, particularly the high mortality rate. This can be partly explained by the clinical profile of these patients and further studies with larger samples should be carried out to establish the actual relationship between urinary catheterization and the development of complications in these patients.

Conclusions: Hospitalized patients in internal medicine wards with urinary catheters have a high-risk profile for serious complications during hospitalization. Compliance and adherence to clinical guidelines for prevention of UTI should be encouraged and the development of specific protocols would be of help to reduce the length of catheterization as well as the risk of complications.

A-73
CLINICAL CHARACTERISTICS OF THE INFECTIVE ENDOCARDITIS IN ZAMORA'S HOSPITAL

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Objectives: To analyse the cases of endocarditis in order to improve diagnosis.

Material and method: The records of the patients diagnosed with endocarditis in the Health-care Complex of Zamora from January 1st -- 2000 to December 31st --2012 were reviewed. The following data were collected: age; sex; cause of admission; presence of a new murmur; fever; constitutional syndrome; heart failure; valve vegetation detected or not and which type of echocardiogram documented it; blood cultures and isolations; pathological valves; identification of a portal of entry for bacteremia; anemia; leukocytosis; ESR; splenomegaly; and immunodeficiency. We compared our results with those in the literature.

Results: Twenty seven patients were analysed, 16 males (59.3%) and 11 females (40.7%). Age ranged from 30 to 85 years with an average age of 67. Fever was the most frequent cause of admission: 19 cases (70.3%). Other causes of admission were: dyspnea and edema 11.1%, low consciousness level 11.1%, constitutional syndrome 7.4% and chest pain 3.7%. A new murmur was detected in 10 cases (37%), fever in 21 (78%), constitutional syndrome in 11 (44.4%), heart failure in 7 (26%) and leukocytosis in 15 (55.5%). ESR increased in 15 patients (78.9%). Seventeen had anemia (62.9%). There were 3 cases of splenomegaly (11.1%). Twenty five cases of valve vegetations (92.6%) were found, 40% of them diagnosed by transthoracic echocardiography (TTE). Transesophageal echocardiography (TEE) was done in 64% of patients. Cultures were positive in 22 (81.5%). The microorganisms found in order of frequency were: S. viridans (different subspecies), 7 cases (25.9%); S. aureus, 7 cases (25.9%); S. bovis, 3 cases(11.2%); Enterococcus, 2 cases (7.4%) and Granulicatella adiacens, S. agalactiae and Salmonella enteritidis, 1 case (3.7%) each. The affected valves were: mitral (76.9%), aortic (15.4%), mitral and aortic (3.8%) and tricuspid (3.8%). There were two cases of HIV infection (14.8%). One of them had the tricuspid valve affected, in relation with the use of injected drugs. The recognized portals of entry were: oral cavity (29.6%), abdominal way (29.6%), urinary tract (7.4%) and parenteral way in injecting drug users (IDUs) (3.7%).

Discussion: Clinical characteristics of our endocarditis are very similar to those in the literature. The most relevant fact was that 18.5% of the cultures were negative, in contrast to 5-15% related in the literature. This is probably due to the fact that 44.4% of our patients received antibiotics before endocarditis diagnosis. All the studied patients comply with the Duke criteria. A vegetation was seen in 92.6% of the cases, similar to data published in the literature. However, only 40% of them were documented by transthoracic echocardiography, different from the 65% recorded in the literature. The other cases were diagnosed by transesophageal echocardiography. Both techniques were performed in the same patient in 24% of the cases. There are no differences between our results and those shown in the literature in terms of the affected valves. The microorganisms found are also the same.

Conclusions: Clinical characteristics of endocarditis in our study are similar to those described in the literature. It is necessary to insist on correct extraction of blood cultures before starting antibiotics. The diagnostic techniques used in our hospital are the appropriate ones and the microorganisms isolated are also similar to those recorded in the literature.

A-74
CHANGING EPIDEMIOLOGY OF INFECTIVE ENDOCARDITIS

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Objectives: The aim of our study is to know the epidemiology of infective endocarditis (IE) in our area and its evolution in the last few decades.

Material and method: This is a retrospective study including all patients who fulfilled modified Duke criteria admitted to a university centre in Spain between January 1990 and December 2008. We compared two periods: 1990-1999 (62 cases), and 2000-2008 (87 cases). Information was obtained from medical records. Statistical analysis was performed using SPSS software. We used χ^2 tests to examine differences in categorical variables and Student's t-test for quantitative ones, considering significant a p value less than 0.05.

Results: A total of 149 consecutive patients with IE was evaluated, 73, 8% were men, with a mean age 54 ± 17 years. Involved cardiac valves were: mitral (37, 9%), aortic (26.2%), and both (10.4%). Tricuspid valve was affected in 28 (18, 8%), most were intravenous drug users (18 cases), and a few have an implanted peacemaker (5). There were 116 cases (77, 9%) of native valves infections, and 28 (18, 8%) of prosthetic valves. Etiology: the most common causative microorganisms were Staphylococci (38.9%) (S. aureus 21, 5%, S. epidermidis 17.4%), Streptococci (22.8%), and Enterococci (8.7%). Thirty seven patients (24.8%) had negative-culture endocarditis (NCE). Serological study and PCR technique in explanted valves were diagnostic in 15 of the NCE patients: Coxiella burnetti (9), Chlamydophila pneumoniae (1), Brucella spp. (3), Tropheryma whipplei (1), and Bartonella spp. (1). In 14, 7% cases there was no aetiological diagnosis. Global outcome: surgical intervention was performed in 46 cases (30, 9%). The in-hospital mortality rate was 11, 5%. Comparative analysis of the two periods: the mean age of patients has progressively increased (46 ± 19 years in the first period vs 60 ± 14 years in the second; $p < 0.0001$), as well as the rate of cases of prosthetic valve endocarditis (11.3% and 24.1%; $p < 0.0015$). Percentages of patients with involvement of tricuspid valve have fallen in recent years (37, 1% and 5.7%; $p < 0.0001$). Intravenous drug users were more frequent in the first period (30.6% and 1.1%: $p < 0.0001$). The microbiological spectrum has changed in the last years: S. aureus was the most common pathogen in the first era (32.2% vs 16.2% Streptococcus spp. and 13% Staph coagulase-negative; $p < 0.03$), while in the second one there was an increase of streptococcal and coagulase-negative

bacteria (12.6% S. aureus, 20.7% S. coagulase-negative and 26.4% Streptococcus spp.; $p < 0.03$). Surgical treatment has increased during the second period (16.2% and 41.4%; $p < 0.001$), as well as the mortality rate (3.2% and 17.2%, $p < 0.007$).

Discussion: In our study, with the usual limitations of a retrospective analysis, we found significant changes in the epidemiology of EI. Twenty two years ago, patients admitted to our hospital were younger people, with a higher proportion of intravenous drug users, and tricuspid and native valve endocarditis. S. aureus was the main pathogen. In the most recent period, we attended older patients with more prosthetic valve endocarditis. Streptococci and S. coagulase-negative were the principal aetiology. However, despite microbiological and histological studies, a significant group of patients (14.7%) still remains with no aetiological diagnosis.

Conclusions: 1. In our area, the microbiological spectrum of IE has changed in the last years.2. The change of habits in risk population and the incorporation of new invasive techniques could be involved in this epidemiologic issue. 3. Still, there is a considerable proportion of cases with no definitive microbiological diagnosis.

A-75
TUBERCULOUS MENINGITIS SECULAR TRENDS IN VIGO (NW OF SPAIN) IN COMPARISON WITH GALICIA AND SPAIN

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Objectives: Central nervous system tuberculosis, most often meningitis TB (TBM), is difficult to recognize and has a high mortality (15-40%), despite the availability of effective drugs. In Spain TBM constituted 1.3% of total TB [96/7,089 (2010]. There is a slow decline of TBM in Spain -rates per 100,000 inhabitants: 0.18 (1997) to 0.14 (2011), although absolute cases remains inmodified [69 (1997), 64 (2011)]. This study is focused on the epidemiology of TBM in our sanitary area (Vigo) and its comparison with that of Galicia and Spain.

Material and method: We examined TBM cases from the Complejo Hospitalario Universitario de Vigo (CHUVI) according to the data obtained from the Minimum Basic Data Set (MBDS) at hospital discharge. It was used for TBM the diagnostic code 013.0 of the International Classification of Diseases 9th ed (ICD-9CM). We used for calculations a reference population of 437,181 inhabitants for CHUVI (2010). These data were compared with reported rates for Galicia and Spain obtained through the system of notifiable diseases (EDO: Enfermedades de Declaración Obligatoria), yearly available at the website of the National Epidemiology Center /Institute of Health Carlos III (www.isciii.es).

Results: There was a global decrease in rates of TBM in Spain, Galicia and Vigo. However, rates in Vigo and Galicia remained elevated with respect to Spain (median for the 1997-2011 period: 1.37 (Vigo); 0.84 (Galicia) and 0.22 (Spain). In Galicia TBM constituted 2.9% of global TB (2010) (1.3% in Spain). In the overall 1997-2011 period, 19% (17/86) of TBM in Vigo were concurrent with HIV, although in the last five-year period 2007-2011 only a patient out 20 (5%) was coinfected with HIV.

Discussion: Like global TB, MTB is decreasing in Spain, but it still remains a significative problem in Vigo and Galicia.

Conclusions: MTB rates in Spain are decreasing, like global TB. However, Vigo and Galicia presents significantly higher rates than Spain, although these differences appear to be gradually reduced. There is markedly decrease in the TBM in patients with HIV.

A-76
INFECTIVE ENDOCARDITIS - A 5 YEAR RETROSPECTIVE STUDY IN AN INTERNAL MEDICINE UNIT

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Objectives: Characterization of patients diagnosed with IE in an Internal Medicine Unit on a peripheral hospital, during 5 years.

Material and method: Retrospective study of patients with definitive diagnosis of IE, according to Duke's criteria, during 5 years.

Results: Were identified 41 patients with IE in the hospital, and 43.9% (18) were in an Internal Medicine Unit. The mean age was 61.6 years and 50% were male. Risk factors: previous antibiotic treatment (55.6%), invasive procedures (33.4%), presence of valvular disease (27.8%) and intravenous drugs users (11.1%). The most prevalent clinical presentation was fever (83.3%), followed by heart murmur (33.3%) and heart failure (27.8%). The transesophageal echocardiogram confirmed the diagnosis in 77.8% of the patients. The most frequent localization was valvular (94.4%) and all of the valves were natives. In 47.1% of the patients, the aortic valve was involved and the mitral in 41.2%. The characterization of the vegetation occurred in 11 patients, of which 45.5% had a dimension superior to 10mm. The pathogen was identified in 50% of the cases, of which methicillin-sensitive Staphilococcus aureus and Streptococcus viridians, were the most frequent (22.2% each). The antibiotic treatment most used was the association of the vancomycin and gentamicin (33.3%). The mean duration of treatment was 4.4 weeks. One (5.6%) patient required urgent surgical intervention. In 33.3% of the patients occurred complications, as valvular dysfunction (33.3%), septic shock and cerebral emboli (5.6% each). The mean duration of hospitalization was 35.8 days. There was a mortality rate of 16.7%.

Conclusions: The diagnosis of Infective endocarditis remains a challenge for the Internist, highlighting the high level of suspicion necessary for the prevention of the complications and for the decrease of morbilidity associated.

A-79
CHARACTERISTICS OF BACTEREMIA IN A GENERAL HOSPITAL

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Objectives: Description of the clinical and epidemiological characteristics of cases of bacteremia attended by a general hospital over a period of 3 years.

Material and method: Retrospective analysis of blood culture isolates from a prospective cohort of all cases of bacteremia attended between 1st January 2009 and 31st December 2011 in a 130-bed general hospital without obstetric, paediatric or ICU services, with an urban reference population of approximately 235,000. The results were analysed using the Student t-test and chi^2 test and the SPSS programme. Statistical significance was established as $p < 0.05$.

Results: In the 390 episodes of bacteremia identified, 424 microorganisms were identified and 26 cases were polymicrobial. A total of 77.7% of cases occurred in the community setting (C), 12.3% in hospitalized patients (H) and 10% in social health facilities (SH). The mean age was 72.75 years (C 70.9, H 75.4, and SH 84.2 years) with significant differences between C and H or SH ($p < 0.001$) but

not between H and SH. A total of 84.6% of SH patients had severe dependence (Rankin scale 4 or 5) compared with 28.2% of the total cohort ($p < 0.001$). H had more comorbidity (66.7%), of which the most frequent were: diabetes mellitus (29.2%), neoplasm (20.8%), chronic obstructive pulmonary disease (25%) and chronic renal failure (18.8%): only the latter two comorbidities were significantly different between groups ($p = 0.015$ and 0.045, respectively). A total of 86.1% C and 74.4% SH had no extrinsic risk factor, whereas 12.5% of H were carriers of central venous catheters, 18.8% of urethral catheters and 25% had undergone major surgery. The main focus of bacteremia was urinary in C (41.9%) and SH (61.5%), and catheters in H (31.3%). In 14.4% of cases the primary was not determined, due to transfer to reference hospital (4.8%), not attending subsequent outpatient appointments (5.9%), or death within 72 hours after admission (7.9%). Overall mortality was 12.8%, but the differences between C (9.2%), H (27.1%) and SH (23.1%) were significant ($p = 0.001$). The most frequently isolated microorganism was E. coli (43.6%), with no difference between groups. There were clear differences between groups in isolations of Staphylococcus sp, which accounted for 37.9% of isolations in H versus only 6.6% in C and 2.6% in SH. ESBL-producing enterobacteria were found in 5.4% of cases and MRSA in 2.3%. Early antibiotic treatment (within 6 hours) was initiated in 94.6% of cases, and consisted principally of amoxicillin clavulanate (51.8%), quinolones (22.3%) and second and third generation cephalosporins (11.3%).

Conclusions: 1. In hospitalized patients, central lines are the most important source of bacteremia. 2. Cases of bacteremia in geriatric patients are mainly of urinary origin. 3. Mortality is high in cases of nosocomial bacteremia occurring in both hospitalized patients and residents of geriatric facilities.

A-80
INFLUENCE OF OBESITY AND MALNUTRITION ON INFECTIOUS DISEASES ADMISSIONS

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Objectives: Obesity is a risk factor in other conditions, like high blood pressure, heart disease and type-2 diabetes. However, recent studies have shown that obese people with chronic diseases have a better chance of survival than normal-weight individuals. This finding has been called the "obesity paradox". Malnutrition is a common problem in patients with chronic or serious diseases, there are a lot of studies that have repeatedly demonstrated how clinical malnutrition negatively affects the recovery from a disease, trauma or surgery, and it is generally associated with an increase in morbidity and mortality both in acute and chronic patients. Our aim is to analyze the influence of obesity and malnutrition on in-hospital mortality and re-admittance 30 days after discharge in patients admitted for infectious disease.

Material and method: Data from the Minimum Basic Data Set (MBDS) from all patients discharge from all the Departments of Internal Medicine (IM) of the Spanish National Health hospitals between the years 2005-2009 were selected. We analyzed those patients with a Major Diagnostic Category (MDC) equal to 18 –Infectious disease-. The Major Diagnostic Categories (MDC) is formed by dividing all possible principal diagnoses (from ICD-9-CM) into 25 mutually exclusive diagnosis areas. Patients with a diagnosis of obesity (ICD-9: 278.00-278.09) or malnutrition (ICD-9: 260-263.9) were also identified. The mortality indexes of obese and malnourished patients were compared against the subpopulation without theses diagnosis.

Results: 90,189 infectious admittances were analyzed, with 4,023 (4.5%) diagnosis of obesity and 2,620 (2.9%) of malnutrition. In-hospital global mortality reached 17.7%, 13.1% in obese patients and 17.9% in non-obese; $p < 0.001$. Obese patients showed a lower in-hospital mortality risk (OR 0.69 95%CI 0.62-0.76) than non-obese after adjusting for possible confusing factors (age, sex, CharIson index, acute respiratory failure). Mortality in malnourished patients was 27.8% vs 17.4% in non-malnourished; $p < 0.001$. Malnourished patients had a much higher risk of dying while in hospital (OR 1.54 95%CI 1.39-1.70) even after adjusting for possible confusing factors.

Discussion: Obesity has been associated with increased susceptibility to acute infections, including those of the lower respiratory tract. Obesity affects the control of the respiratory cycle, increases airway resistance and the work of breathing, impairs respiratory muscle function and gas exchange, increases the risk of aspiration, and increases the volume of distribution for certain antibiotic drugs. Also, obesity-associated derangements in the homeostasis of leptin and adiponectin (adipokines) have been linked to impaired innate and adaptive immune responses to infectious challenges. Counter intuitively, we found that obesity was significantly associated with decreased in hospital mortality in patients with infectious disease. Our results together with those of previous studies suggest that obesity may have a paradoxical protective effect against in-hospital mortality from infected patients. Without questioning the detrimental effects of obesity in the health of people, the prospect of unrecognized obesity-associated factors that protect against the progression of infectious diseases deserves further consideration and study.

Conclusions: Obesity in patients hospitalized for infectious disease substantially reduces in-hospital mortality risk. More research should be aimed at resolving the obesity paradox.

A-81
POOR PROGNOSTIC FACTORS OF BACTEREMIA IN A GENERAL HOSPITAL

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Objectives: To analyze factors associated with mortality due to bacteremia in a general hospital.

Material and method: Retrospective analysis of a prospective cohort of all cases of bacteremia attended between 1st January 2009 and 31st December 2011 in a 130-bed general hospital without obstetric, paediatric or ICU services, with an urban reference population of approximately 235,000. The results were analysed using the Student t-test and chi^2 test and the SPSS programme. Statistical significance was established as $p < 0.05$.

Results: Of the 390 cases of bacteremia included, 40 were excluded due to transfer out or were lost to follow up after five weeks. Therefore, 350 cases were finally analyzed, of which 48.3% were male, with a mean age of 73.3 years, and 28.9% had severe dependence. A total of 76.9% of cases occurred in the community setting, 13% in hospitalized patients and 10% in social health facilities. In the 53.1% of patients with comorbidity, the most common were: diabetes mellitus (24%), neoplasm (16.3%), chronic obstructive pulmonary disease (13.7%) and chronic renal failure (9.1%). In the 29.9% of patients with ≥ 1 risk factor bacteremia, the most common were: urinary catheter (7.4%), major surgery (4.6) and chemotherapy (4.6%). The most common foci of bacteremia were urinary (42%), abdominal (21.7%) and respiratory (10.9%) and the origin was not determined in 13.4% of cases. The most frequently isolated microorganisms were E. coli (45.4%) and S. pneumoniae (8%), while 6.6% of cases were polymicrobial. ESBL-

producing enterobacteria were found in 4.9% of cases and MRSA in 2.3%. Empirical antibiotic treatment was started within 6 hours of clinical presentation in 94.6% of patients. The main drugs used were amoxicillin-clavulanate (52.9%), quinolones (21.7%) and cephalosporins (10.9%). A total of 14.3% of patients died: their mean age was 79.3 years versus 72.3 years for survivors (p = 0.005). Of patients who died, 10.4% came from a community setting, 28.3% were hospitalized patients and 25.7% came from social health facilities (p = 0.001). There was a higher mortality rate in nosocomial patients (hospital and social health) than in community-dwelling patients (27.2% versus 10.4%; p < 0.001). Dependence (p < 0.001), unidentified focus (p = 0.004) and bacteremia due to MRSA (p = 0.001) were risk factors for mortality. Comorbidity and extrinsic risk factors were not significant factors. Early empiric antibiotic treatment was associated with a higher cure rate (86.7% vs 13.3%, p = 0.012), but no significant differences were found with respect to the choice of antibiotic

Conclusions: 1. Age and severe dependence were negative prognostic factors. 2. Bacteremia in the community and early initiation of empirical antibiotic therapy was associated with better outcomes. 3. The focus of infection remained unknown in a high percentage of patients who died.

A-82
A GROUP OF PATIENTS WITH WHIPPLE'S DISEASE DIAGNOSED IN THE UNIVERSITARIO MARQUÉS DE VALDECILLA HOSPITAL

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Objectives: Review the diagnosed cases of Whipple´s disease (WD) in the last twenty years in our hospital, describing the clinical features and the utility of the diagnostic tests.

Material and method: This is a retrospective study in 5 patients (80% men) diagnosed of WD in the HUMV (Santander, Spain) from 1989 to 2012. Data regarding the clinical history, age, personal history, way of presentation, clinical features, as well as data coming from the physical exploration, was retrieved. Besides, the delayed time until the diagnosis took place, was also analysed. Also, laboratory data, such as sedimentation rate (ESR, mm/h), C-reactive protein (C-RP mg/dl), haemoglobin (Hb g/dl) and albumin (g/dl), was registered. Information coming from the immunologic studies (RF, citrulinated peptide, ANA, ANCA) and the malabsorption test with D-xilosa in urine (normal > 1 g/5h), as well as the level of total and free testosterone (ng/dl), SHBG (nmol/l), D-vitamin (25-OHD ng/dl), was collected. From the image tests, presence of lymphadenopathy and location in scanner were obtained, also including measurement of bone mass through dual X-ray absorptiometry (t-score). Furthermore, the type of biopsy performed (duodenal or rectal), the histology and the molecular determination through Polymerase Chain Reaction (CRP in tissue or synovial liquid) was recorded. The type of treatment received (antibiotics) and the mortality also were included.

Results: The average age at the diagnosis was of 62 ± 15 years. All patients had lose weight (14 ± 3 kg). 60% displayed diarrhoea (5 ± 1 months) and 60% showed fever. In the physical examination, 2 patients had arthritis in elbows and ankles. The average time to diagnosis was of 63 ± 25 months. 80% of the cases showed an increase of the inflammatory reactants (ESR > 33 mm/h, C-RP > 7.25 mg/dl). Anaemia was registered in all of the cases (Hb < 12 g/dl) and hypoalbuminemia (albumin < 3.5 g/dl). Immunological studies in patients with palindromic rheumatism were absolutely normal. D-Xylose test was abnormal in 3 of 4 cases (0.29 ± 0.19 g/5h). The average of 25-OHD was of (17.8 ± 7.3 ng/ml) half of them had less than 20 ng/ml. In the scanner, 100% presented abdominal lymphadenopathies, 40% thoracic and 20% peripheral. The diagnosis of WD was done through microscopy, displaying Tropheryma whippelii inside positive PAS macrophages in a rectal biopsy, in 3 duodenal ones, and in a myocardial and cerebral necropsy. Furthermore, 40% had a positive C-RP for T. whippelii in duodenum and 20% in synovial fluid. One patient had osteopenia (CL-1.2, Femoral Neck density -1.1) and other one had osteoporosis (CL t-score: 2.5, Femoral neck density -1.8) Two cases received treatment with G-Penicillin (1.2×10^6 U/day) and Streptomycin (1 g/24 ev) during 14 days, followed by oral Cotrimoxazole (160/800 mg/12h) during 1 year. Another 2 cases received Ceftriaxone (2 g/12h ev) during 2 weeks (4 weeks in the hypothalamic hypogonadism), followed by Cotrimoxazole (160/800/12h) during 1 year. One died without being diagnosed. In our series, 2 patients were diagnosed nine years ago of a PR, with a periarticular and axial affectation, as well as subcutaneous nodules. Both presented clinical features of hypogonadism, including impotence and decrease of sexual desire of 10 ± 2 months; one of which presented hypothalamic hypogonadism, showing a normal cranial MRI. One of the cases after treatment with methotrexate presenting worsening symptoms.

Discussion: Patients with WD have frequently a general syndrome and an important loss of weight, associated to diarrhea, fever and lymphadenopathy. As all these data are common to other illnesses, a duodenum biopsy and microscopy study should be performed to reach the correct diagnosis. Delay in diagnosis is not rare, but once WD has been diagnosed, response to appropriate antibiotic treatment is usually good. We consider that for those patients diagnosed of not well-defined rheumatic diseases, with a bad development, an extensive study of this disease should be performed.

Conclusions: WD has a difficult diagnosis, which demands a high clinical suspicion, above all in patients with not well-defined rheumatic diseases or after immunosuppressive treatment.

A-83
SEPTIC ARTHRITIS OF THE PUBIC SYMPHYSIS: REVIEW OF 7 CASES

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Objectives: Assess clinical features of septic arthritis of the pubic symphysis (SAPS) and provide tools for differential diagnosis between it and sterile osteitis pubis.

Material and method: All SAPS cases diagnosed in Cabueñes Hospital from 1991 to 2011 were revised in a retrospective descriptive manner. Medical bibliography was reviewed. Diagnosis was done when clinical, microbiological and imaging features were compatible, and excluded when lacking any of them.

Results: Seven patients fullfiled the criteria. Clinical picture showed groin pain 5 (71.4%), antalgic gait 4 (57.1%) and pubic tenderness or pain 4 (57.1%). Concerning laboratory tests, C-Reactive Protein -raised in 4 out of 6 patients (66.7%)-, Erythrocyte Sedimentation Rate -2/4 (50%)-, leukocytosis -1/5 (20%)-, left shift -2/5 (40%)-and procalcitonine -1/1 (100%)- were used for initial approach. Blood, urine and direct specimen cultures were performed: 2/5 (40%) blood cultures were positive for methicillin-sensitive S. aureus; 4 specimen cultures were positive (100%) for polymicrobial, meticillin-sensitive S. aureus, multi-resistant P. aeruginosa or Staphylococcus constellatus. In urine

cultures, 1/3 (33.3%) was positive for E. coli and 1/3 for multi-resistant P. aeruginosa. Imaging showed positive results in 4/4 (100%) both CT and MRI, 5/5 (100%) scintigraphy, 4/6 (66.7%) radiographies and 1/4 (25%) ultrasound. Common features were symphysis widening, collections and bone destruction. Diagnosis delay was less than 1 day on 3 patients (42.9%), less than 1 week on 1 (14.3%) and more than 1 month on 3 (42.9%). Females with urinary incontinence surgery accomplish for longest delays. Already known risk factors can help choosing empiric antibiotics and incontinence surgery was the most prevalent (42.9%). 85.7% of our patients had a point of entry that could explain a transient bacteremia. Treatment is antibiotics, 57.1% needed a surgical procedure. Combinated treatment was the rule: 6 patients had 3 or more antibiotics; ciprofloxacin (85.7%), gentamycin (57.1%), amoxicillin-clavulanate (42.9%) and cloxacillin (42.9%) accounted for the highest prescription. Outcomes were usually good (57.1% without complications nor sequelae), but there is a risk for local complications (42.9%) and local sequelae (28.6%, often worsening of urinary incontinence). We report one death, due to a stroke during admission.

Discussion: Our work resembles main features of our patients with SAPS. The longest series published (Ross et al.), reported 100 cases, making the point of the low incidence, perhaps consequence of misdiagnosis with osteitis pubis, a common aseptic condition that resolves without specific management. This happens too because septic arthritis is often contained by immune system and can resolve without antibiotics. Our 7 cases were similar to the literature. We noted a less frequent onset with fever (42.9 vs 74%) and more groin pain (71.4 vs 41%). Laboratory findings disclosed nonspecific inflammatory response and imaging was the most powerful diagnostic tool (100% positive with MIR, CT and schintigraphy): it matches with previous data. Blood cultures had intermediate sensitivity, higher at direct specimen cultures (100% positive). Management was first medical: endovenous antibiotics for a long span of time; in all but one case, more than one drug was necessary. Surgery was performed in 57.1%, the same rate found in previous data. Outcomes were most good, but 2 cases of urinary incontinence worsened and a stroke and death in an elderly and comorbid patient happened. We estimate that an important number of cases of osteitis pubis lack of a microbiological research for ruling out SAPS, so we ask for awareness about misdiagnosis.

Conclusions: Septic arthritis of the pubic symphysis is an illness with an estimated high rate of underdiagnosis. Microbiology research is desirable when assessing any osteitis pubis, which can have an overseen infection underlying. Women after urinary incontinence surgery are specially prone to SAPS. Given the reduced number of cases, it is not possible for us to make diagnostic or therapeutic advices.

A-84
INFECTIOUS DISEASES IN PREGNANCY OUR EXPERIENCE AS CONSULTANTS IN AN OBSTETRICS CLINIC

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Objectives: To describe characteristics of infectious diseases in pregnant women.

Material and method: Descriptive study of some pregnant women attended both as inpatients and outpatients. A total of 310 pregnant women were enrolled in the study, and 52 of them had an infectious disease.

Results: The average age of the patients was 33 versus those infected who were 31. Nationalities: Spanish (61%), Latin Americans (21%) and Africans (13.4%). The kinds of infections that we attended are shown in T. 1.

Discussion: In this study we have investigated the occurrence of infections and complications during gestation period. We concluded that the most frequent infection was the respiratory followed by the urinary ones, and the rest was a miscellany that includes, malaria, tuberculosis and listeriosis. The frequency of the above mentioned processes did not change according to the nationality or the complications. All the patients received antibiotic treatment allowed in pregnancy. There was neither any fetal loss nor any mother death. A patient had to be attended in the Medical Intensive Care Unit with respiratory sepsis. Three premature childbirths were registered as complications, two preeclampsias and a patient developed diabetes mellitus secondary to steroid treatment. The third quarter of pregnancy was the most frequently affected by infections. All the cases evolved favourably. All the patients were valued again after discharge at Internal Medicine Clinic as outpatients.

Conclusions: Pregnancy is considered to be a time of major susceptibility to infectious diseases that must be detected in time and treated properly in view of the potential risk of obstetric (premature childbirth) and systemic complications. The collaboration between the departments of Obstetrics and Internal Medicine is essential in the diagnosis, treatment and follow-up of these patients.

Table 1 (A-84). Type of infections and frequency

Respiratory infections	Pneumonia	38.3%
	No pneumonia	18%
	Sepsis	1%
Flu	H1N1 influenza virus	13.4%
	Seasonal flu	4%
Urinary tract infections	Kidney infection	5.7%
	Lower urinary tract infection (E. coli)	4%
Malaria		4%
Bacterial meningitis		2%
Listeriosis		2%
Brucellosis		2%

A-85
BLOODSTREAM INFECTIONS IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To describe the clinical characteristics, microbiological profile, treatment, associated complications and mortality in patients with bloodstream infection (BSI) in an Internal Medicine ward.

Material and method: A descriptive study on significant bacteraemia detected from December 1st, 2011 to May 15th, 2012 in an Internal Medicine department of 114 beds in a tertiary hospital. Through this period, we describe the demographic, microbiological, clinical data and outcome of the patients affected with a BSI. We recollected the positive blood cultures of our patients and we exclude those which suggested contamination. We consider appropriate treatment when the antibiotic used was effective in vitro according to the antibiogram susceptibility.

Results: A total of 67 positive blood cultures (for significant bacteraemia or fungaemia) were isolated from 63 patients, with

an incidence of 3.7% during this period. The mean age was 81.3 years (range: 40-97) being 66.7% older than 80 years. Females were predominant (60.4% vs 39.6%). The mean Charlson score was 2.6 (SD: 1.7). For functionality index our patients had a mean of 53.5 in Barthel index and 33.3% of patients had an F-G Katz index. Bloodstream origin was 43.3% community, 43.3% nosocomial and 13.4% healthcare-associated. The isolates were 47.7 Gram-positive (GP) cocci, 44.8% Gram-negative (GN) bacilli and 7.5% fungi (with 6% polimicrobiane including anaerobes). The pathogens most frequently isolated were Escherichia coli (31.3%; 70% of GN bacteria), Coagulase-negative Staphylococci (CoNS) (16.4%; 34.4% of GP organism) and Staphylococcus aureus (11.9%; 25% of GP). All fungi were Candida species (3 C. albicans, 1 C. glabrata, 1 C. parapsilosis). In 26 episodes (38.8%) the patient did not have SIRS criteria; the others (41) had a clinical feature of sepsis (22), severe sepsis (11), septic shock (5) and multiorganic failure (3). The most frequent source of infection was urinary (35.8%) followed by abdominal (17.9%). Nine bacteraemias (13.4%) were related with intravascular devices, causes by GP bacteria (7) and Candida albicans (2). In 66 cases (98.5%) the patient received empirical treatment, which was appropriate in 42 (63.3%). The antibiotics used were: Piperaciline/tazobactam (26.8%), amoxiciline/clavulanic (19.4%), quinolones (16.4%), cefalosporines (14.9%) and meropenem (14.9%). Complications included 2 patients who were admitted to ICU (with endotracheal intubation), 8 required vasoactive drugs and 2 needed surgery. The global mortality was 23.9%.

Discussion: We detected a higher percentage of non-community BSI (56.7%) than in other series. This data could be explained because of the characteristics of our population. As shown in other studies, E. coli is the most frequent pathogen in our cohort and as a group GP cocci were the main isolates. We have a proportion of candidaemia of 7.5% of a BSI, similar to that found in other series, (3 nosocomial and 2 health-care associated). We found 43.3% of the bacteraemias were nosocomial in origin; the main pathogen group was GP cocci (55.2%) associated to intravenous devices (24.1%); they presented with sepsis in 62% and the treatment was initiated or started empirically in 96.5% of the cases but only appropriate in 44.8%. Despite that the principal antibiotic prescribed was piperaciline-tazobactam, it is remarkable the high prevalence of inappropriate treatment (36.3%); this may be explained by the high prevalence of nosocomial bacteraemias, the predominance of GP cocci and the isolation of extended-spectrum beta-lactamase enterobacteriae and Candida species. We found a mortality rate of 23.9%, this result is a little higher than that seen in other series, this could be due to the clinical profile of our patients and the higher percentage of inappropriate empirical therapy.

Conclusions: Bacteraemia remains a significant problem, regarding morbidity and mortality both for community and nosocomial origin. Measures should be implemented for the prevention of nosocomial bacteraemia, as well as to identify risk factors for resistant organisms, which can help to improve the empirical treatment prescribed.

A-86
IMPACT OF SUBACUTE THYROIDITIS PRESENTING AS FEVER OF UNKNOWN ORIGIN IN A TERTIARY HOSPITAL

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Objectives: Subacute thyroiditis is a painful, inflammatory disease of the thyroid gland, probably of viral origin. It is an uncommon but important cause of fever of unknown origin (FUO). We investigated FUO in 97 patients and recorded the frequency of subacute thyroiditis presenting as FUO in the studied population in respect.

Material and method: We investigated 136 (61 male) patients with FUO hospitalized between January 2011 and April 2012 at our Internal Medicine Department.

Results: The median age of the patients was 48.5 years (median range: 24-87 years). Eleven patients (8.08%) were over 65. Mean duration of hospitalization was 22.5 ± 13 days. Infectious diseases were the most common causes of FUO. Tuberculosis (n = 15, 11.0%), infective endocarditis (n = 6, 4.4%), abdominal abscess (n = 6, 4.4%), brucellosis (n = 5, 3.7%), urinary tract infection (n = 5, 3.7%), atypical pneumonia (n = 16, 11.8%). Cytomegalovirus infection or encephalitis was diagnosed in 51 (37.5%) patients. The second most common causes of FUO were collagen vascular diseases (n = 16, 11.8%) determined as vasculitis syndrome, adult Still's disease (n = 4, 2.9%), systemic lupus erythematosus, Behçet's disease, juvenile ankylosing spondylitis. Neoplasm was found in 12 (8.8%) patients; (non-Hodgkin lymphoma, Hodgkin lymphoma, chronic myeloid leukemia, gastrointestinal tract carcinoma, breast adenocarcinoma). Subacute thyroiditis was diagnosed in 22 (16.2%) patients. On admission, ten patients (7.4%) were neutropenic.

Discussion: Infectious diseases are the leading diagnostic category of FUO in our study. Subacute thyroiditis was more common than expected. An etiological diagnosis could not be reached in six (4.4%) patients who were followed for 1 year. Five of these patients completely recovered, and one patient died.

A-87
CLOSTRIDIUM DIFFICILE INFECTION IN HOSPITALIZED PATIENTS: A TWO YEAR RETROSPECTIVE REWIEV

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Objectives: To identify risk factors for infection with Clostridium difficile in hospitalized patients in our department in the University Hospital of Salamanca.

Material and method: This is a retrospective review of the cases of clostridium difficile isolated in the Department of Internal Medicine of the University Hospital of Salamanca in a period of two years. All patients with positive culture results for Clostridium difficile toxin from January 1st 2010 to December 31th 2011 were eligible for inclusion in the study. Registered data included age, sex, previous antimicrobial therapy, hospitalization 30 years prior to admission, surgery or any type of immunosuppression.

Results: There were 9 cases, 66.6% women and 33.3% men; the mean age was 82 years. 77.7% of the patients had received prior antibiotic treatment with beta-lactam antibiotics. 33.33% of the patients had had surgery and 31% had suffered some kind of immunosuppression.

Discussion: Clostridium difficile is the leading cause of healthcare-associated infectious diarrhea. Although Clostridium difficile is part of normal flora in some healthy individuals, patients with selective risk factors are often vulnerable to the toxigenic potential of this virulent healthcare pathogen. The spectrum of Clostridium difficile infection is highly variable, ranging from mild to severe illness, presenting with single to multiple disease recurrences. Antibiotic use is the most widely recognized and modifiable risk factor for C. difficile-associated diarrhea. Other established risk factors include hospitalization and advanced age (dramatic increases in the incidence and severity of healthcare-associated C. difficile infection have occurred over since 2000, particularly in patients over age

65). Possible additional risk factors are surgery or cancer chemotherapy and hematopoietic stem cell transplantation. The association between cancer chemotherapy and C. difficile infection may be related to the antimicrobial effect of chemotherapeutic agents and/or their immunosuppressive effects.

Conclusions: Prevention and eradication of Clostridium difficile infection require a multidisciplinary approach, including early disease recognition through appropriate surveillance, implementation of effective contact isolation strategies, adherence to environmental controls, judicious hand hygiene, evidence-based treatment, and management that includes antibiotic stewardship, continuous education of healthcare workers, and administrative support.

A-88
EXTRAPULMONARY TUBERCULOSIS. A REVIEW OF THE LAST 5 YEARS

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Objectives: Tuberculosis (TB) can affect by hematogenous, lymphatic or contiguous spread to any organ or body tissue, both at the primary infection as when a reactivation occurs. The most common form is the pulmonary disease (P-TB). The diagnosis of extrapulmonary-TB (EP-TB) requires a high index of suspicion, as it presents with non-specific symptoms, the difficulty to obtain representative samples, and the poor rentability of the smear and cultures. The best regimen of treatment for EP-TB is not fully clear. The aim of this study is to analyze the clinical, epidemiological and microbiological characteristics and the evolution of the EP-TB diagnosed at our center.

Material and method: A retrospective study between January 1, 2007 and December 31,2011 was carried out. We reviewed the medical records of all the patients diagnosed with EP-TB. Epidemiological, clinical, microbiological and treatment data were collected. Cases of EP-TB were defined by a positive culture for M. tuberculosis (microbiological criteria), histological samples showing necrotic granulomas (histological criteria), a biochemical study of organic fluids compatible plus an elevated ADA (biochemical criteria)or by a favourable response to the antituberculous treatment in the absence of an alternative diagnosis (clinical criteria).

Results: Among the 92 patients diagnosed as TB during the study period, 35 were EP-TB (38.04%). The diagnosis was made by microbiological criteria in 23 cases (65.7%), histological criteria in 7 cases (20%), biochemical in 4 (11.4%) and by clinical suspicion in 1 (2.9%). The EP involvement was pleural in 14 cases (40%), nodal in 13 (37.1%), abdominal in 4 (11.4%), musculoskeletal in 4 (11.4%), central nervous system in 1 (2.9%) and parotidal in 1 (2.9%). There was associated P-TB in 10 cases (6 pleural + P-TB, 2 nodal + P-TB, 1 abdominal + P-TB, 1 musculoskeletal + P-TB). 8 patients were Spanish (22.9%), 20 Asian (57.1%, 13 from Pakistan, India 3, Bangladesh 1, China 2), 3 from South America (8.7%, 1 from Brazil, Bolivia 1, Peru 1), 2 from North Africa (57% Morocco), 2 from Sub-Saharan Africa (5.7%, 1 from Senegal, Equatorial Guinea 1) and 1 from Eastern Europe (2.9% Moldova). 71.4% of the patients were male. Mean age at diagnosis was 38.9 ± 13.9 years (51.1 years among the Spanish, 33.6 among foreigners). 42.9% were smokers and 11.4% had chronic alcoholism. 1 patient was pregnant at the diagnosis. The more frequent comorbidities were: chronic lung disease (5.7%), heart disease (5.7%), diabetes mellitus (2.9%), cirrhosis (5.7%), connective tissue disease (2.9%). None of the patients was HIV+, 5.7% had pharmacologic immunosuppression. The most common symptoms were fever (40%), cough (34.3%), sweating (22.9%), dyspnea (17.1%), chest pain (20%), expectoration (20%) and a growing mass (28.6%). The average time of onset was 59.4 ± 80 days. 94.3% of the patients required hospitalization, 13.2 ± 9.8 days-long on average. Among the 23 cases with a microbiological diagnosis, we had antibiogram in 18, and we found resistance to first-line antiTB drugs in 5 (27.7%). The treatment regimen used in most cases (62.8%) was 2 months of isoniazid (H), rifampicin (R), pyrazinamide (P) ± ethambutol (E) followed by 4 months of RH. In the remaining cases the treatment was extended until9-18 months, without using other drugs. In 4 cases, steroid therapy was added (11.4%). The treatment was performed on an outpatient regimen in all cases, in 4 patients we used a directly observed treatment regimen. 5 patients were lost during the follow-up (14.3%). The evolution was successful to healing in all patients except 1 patient with meningeal TB who was exitus during the hospitalization.

Conclusions: EP-TB represents 38.04% of the TB diagnosed in our center. The most frequent forms are nodal and pleural TB. Most patients with EP-TB were foreigners and young. In most cases the diagnosis was microbiological, and it was more frequent in cases associated with P-TB (90% vs 56%). In many cases we initiated treatment before microbiological confirmation (40%). Among the positive cultures with antibiogram, we found resistance to first-line antiTB drugs in 27.7%. The most frequent resistance was to isoniazide. In most cases we used a 6-month regimen for treatment (2IRP/IRPE+4IR), with a correct evolution in all of them, except for 1 meningeal TB.

A-89
SEVERE SEPSIS IN HOSPITAL VIRGEN DE LAS NIEVES OF GRANADA

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Objectives: To analyze compliance with quality standards for severe sepsis in our hospital and to identify weaknesses or deficiencies in the application of this process and seek opportunities for improvement.

Material and method: We have performed a retrospective study of patients with severe sepsis treated in the emergency department of our hospital (January 2010-December 2011) and analyzed them according to five criteria of the quality standards of the the Andalusian Health Service (Table).

Results: We included 50 patients (average age: 79.7 years; men/women: 42/58%). We found only one of the evaluated criteria has obtained an acceptable result which is the identification of the infective focus at an early stage, and early extraction of blood cultures, early antibiotic therapy and completion in the clinical history of time to perform those tasks has achieved results below the quality standards.

Discussion: Severe sepsis is a prevalent disease with high mortality and morbidity, often associated with chronic conditions, whose outcome depends largely on the correct actions performed early. The multidisciplinary approach and compliance with quality standards will optimize the results in terms of survival and quality of life for these patients.

Conclusions: The management of severe sepsis in our hospital is likely to improve, given the results obtained. To do this we consider essential to develop hospital protocols and awareness of health personnel about the importance of early extraction of blood cultures prior to initiation of early empiric antibiotic therapy.

Table (A-89). Criteria of the quality standards of the Andalusian Health Service

Criteria	Accomplishment	Minimal Standard	Optimal Standard
Blood culture taken in the first hour	26% (14-38%)	75%	> 90%
Antibiotic administered within one hour	52% (38-66%)	75%	> 90%
Blood cultures taken before antibiotic administration	28% (16-40%)	80%	95%
Identification of the infective focus in the first 6 hours after onset	88% (79-97%)	75%	> 90%
Filling in in the clinical history of time of performance of tasks	48% (34-62%)	75%	> 90%

A-90
ADHERENCE TO OPTIMIZATION PROGRAM ON ANTIMICROBIAL PRESCRIBING FOR ADMITTED PATIENTS AFTER TRANSFER FROM ICU (INTENSIVE CARE UNIT) TO A WARD

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Objectives: Prescription of an a inappropriate antimicrobial therapy is a common problem that is associated with multiresistant bacteria selection and patient mortality. Setting an effective and low cost strategy could significantly improve the current situation. Our work consists in evaluating the percentage of adherence to recommendations made by a team of experts in antimicrobial therapy (TEAT).

Material and method: Prospective study in a cohort of patients after transfer from ICU to a ward in the H.U. Puerta de Hierro. The patient enrollment period was 2 months, november and december of 2011. TEAT reviews cases and provides a recommendation for modification or maintenance of antimicrobial therapy. Adherence to recommendation is evaluated in this study.

Results: One hundred thirty-six patients were analyzed of which 59.6% are male and 40.4% women. The median age was 60.8 years and average age was 59.7. Average stay in ICU was 6.6 days. The patients were transfer more frequently to surgical departments, and of these, thoracic surgery (30.1%), general surgery (16.2%) and neurosurgery (8.1%), were the most frequent. In the medical departments, the most frequent were cardiology (9.6%), internal medicine (4.4%) and liver transplant (4.4%). Of the cases reviewed, 40.7% had no infection. One hundred eighteen infectious processes were reviewed, of which 27.9% were respiratory, 28.8% were abdominal and 24.57% had not an established source of infection. The antimicrobials most frequently received by the infected population were piperacillin-tazobactam (9%), linezolid (7%), ciprofloxacin (7%), meropenem (6%), levofloxacin (5.5%), amoxicillin clavulanate (5%) and fluconazole (4%). Of all infected cases (59.3%), 20.3% received a recommendation on antimicrobial therapy (58.3% to remove and 33.3% to change therapy). These recommendations were accepted in 66% of the cases.

Discussion: Despite the need to implement strategies to optimize antimicrobial therapy use, in Spain only 40% of hospitals has introduced a strategy to improve antibiotic prescribing. Currently it is essential to achieve a strategy to develop a rational use of antimicrobial therapy to ensure their effectiveness. Our study demonstrates an effective strategy that optimizes the use of antibiotics and that a simple and cheap intervention achieved a great percentage to adherence. Most of the patients included were discharge to surgical departments because the surgical ICU is the one with largest number of patients. Our study suggests the effectiveness of this strategy among physicians with less experience in the use of antimicrobial therapy. There's is great use of broad spectrum antimicrobial therapy because the patients included have criteria for nosocomial infection. The evaluation of these patients by TEAT allows the removal of broad-spectrum antimicrobial therapy in a great percentage of patients.

Conclusions: The prescription of antibiotics to ICU discharge is correct in a large number of patients. Adherence to the program of optimization of antibiotic therapy is high. The study of the patients after transfer from ICU to a ward by TEAT is an effective strategy in optimizing the use of antibiotics, that could reduce the emergence of bacterial resistant, could reduce mortality associated to infections and could also allow a reduction in pharmaceutical spending. Larger sample sizes are needed to obtain more conclusive data.

A-91
DESCRIPTIVE STUDY OF CASES OF NOCARDIOSIS PRESENTED JANUARY 1995 TO APRIL 2012 IN A COMMUNITY HOSPITAL IN SOUTHEASTERN SPAIN

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Objectives: Introduction. Nocardiosis is an infection caused by aerobic gram-positive bacteria of the genus Nocardia. It mainly affects immunocompromised patients with underlying disease or predisposing although cases have been reported in healthy patients. The presentation is usually the pulmonary, cerebral or skin and its course is usually chronic and prone to relapse.

Material and method: We analyzed the clinical and epidemiological and microbiological characteristics of 22 patients who were isolated microorganisms of the genus Nocardia from January 1995 to April 2012.

Results: Factors of risk of nocardiosis: 1. COPD 75% 2. Corticotherapy 15% 3. Systemic diseases 10% Microbiological isolation: 1. Nocardia asteroides 55% 2. Nocardia carnea 15% 3. Nocardia farcinica 5% 4. Nocardia cyriacigeorgica 5% 5. Others 20% Clinical presentation: 1. Pneumonia 65% 2. Pleural effusion 15% 3. Lungs nodules 10%.

Conclusions: As in other series, we note that the nocardiosis is more frequent in males of age advanced with some factor of immunosuppression, mainly chronic obstructive pulmonary disease, corticotherapy and the presence of systemic disease such as rheumatoid arthritis. The commonest format was pulmonary involvement in all of them and the isolation of Nocardia was conducted mostly in sputum culture. With regard to treatment, all patients were treated from the microbiological discovery of Nocardia with cotrimoxazole with an average duration of 6 months. Finally, in our series have found a relatively low mortality with respect to other studies, probably in connection with the low prevalence of species associated with increased mortality as the N. farcinica, or the absence of severe and prolonged immunosuppression situations such as transplants and hematologic diseases.

A-92
KLEBSIELLA PNEUMONIAE ESBL OUTBREAK IN NEONATAL UNIT

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Objectives: Klebsiella pneumoniae producing beta extended spectrum lactamase (ESBL) is involved in many of nosocomial outbreaks due to its easy cross-transmission. We report our experience in controlling an outbreak in a neonatal unit with capacity for 15 infants, in a second level hospital with 326 beds.

Material and method: The determination sensitivity to antibiotics was performed by the system WalkAway MicroScan (Siemens) and disk diffusion techniques. After identification of the first case of ESBL Klebsiella pneumoniae bacteremia was activated the protocol for monitoring and controlling an outbreak of nosocomial infection. Perineal swabs were performed for all patients admitted to the unit, contact precautions were instituted, insisting on increasing hand hygiene measures. It limited the admission of patients in the neonatal unit, enabling a space with separate staff for newborns infected/colonized. Environmental samples were collected followed by thorough cleaning of the room. It raised the level of suspicion of infection by this organism in patients who have been assisted in this unit. It was also decided to perform perineal swabs as active surveillance for all newborns admitted to the unit once a week, for patients on this ward and medical staff who came into contact with unit patients and parents of patients colonized/infected. We warned the hospital that were in contact with neonatal patients in our hospital. It declared the outbreak to the Department for Health.

Results: All strains showed the same phenotype of multidrug resistance and ESBL production. Were detected: 6 colonized patients (positive perineal swabs), 2 patients with bacteremia of intestinal origin (all premature and all properly cured). No culture was positive for ESBL Klebsiella pneumoniae in 72 samples carried out to health workers, 5 to relatives, 42 environmental samples. Strains were studied by molecular epidemiology, all had the same pulsed-field pattern. There were several sessions with the medical staff emphasizing measures to prevent cross-transmission.

Discussion: Control of the outbreak is complex, it takes teamwork. It is necessary to maintain the level of high alert to new outbreaks.

Conclusions: The source of infection was not detected. It was demonstrated that all strains had the same pattern, strict isolation measures, hygiene helped control the outbreak quickly.

A-94
INFECTIOUS PROSTATITIS AS A CAUSE OF FEVER WITHOUT APPARENT SOURCE

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Objectives: The aim of this study was to describe all cases of prostatitis diagnosis in our unit over a period of five years, analyzing specifically the clinical presentation and the organisms responsible.

Material and method: We conducted a retrospective cohort study including all patients diagnosed from 1st of August 2006 to 31st of July 2011. The inclusion criterion was a consistent positive result after performing the Meares-Stamey test. Epidemiological, clinical, analytical and microbiological data were collected from clinical history of each patient. All cases with two or more bacteria isolated from cultures were considered as polymicrobial. A descriptive study was performed, analyzing clinical and microbiological characteristics. We specifically analyzed the association between clinical presentation (only symptoms, symptoms and fever or only fever) and epidemiological, analytical or microbiological findings. For quantitative variables comparison we used the Student's t test when two groups were compared and the ANOVA test when more than two groups were compared. For qualitative variables comparison we used the χ^2 test, using Fisher's exact test when expected frequency was less than 5. SPSS statistical program version 18 was used.

Results: 39 cases of prostatitis were diagnosed during the study period, the average age was 44 (SD = 12) years. 17 of them (44%) presented any kind of immunosuppression (14 by HIV infection). 51% related regularly anal sex with other men. 12 patients (31%) presented only symptoms like pelvic pain or dysuria (group I), 8 patients (20.5%) referred symptoms and fever (group II) and 19 (49%) fever without symptoms (group III). ESR was significantly higher in patients from group III ($p < 0.05$). There was no significant difference on PSA levels between the three groups, and it was elevated only in 5 patients. 66.6% of cases were caused by a unique bacteria and coagulase-negative staphylococci were the most frequently isolated (4 cases), followed by Escherichia coli, Corynebacterium glucurunolyticum and Streptococcus mitis (3 each). Among the polymicrobial prostatitis Enterococcus faecalis (5 cases) and E. coli (4 cases) were the most frequent responsible agents. Monomicrobial origin was more frequent among patients from group III (79%) than from the others (54%).

Discussion: Prostatitis presentation as fever of unknown origin is infrequent, ours is the first cohort study in this way. E. faecalis and E. coli are the most frequent isolated bacteria from prostatitis, but coagulase-negative staphylococci are not common etiologic agents. Polimicrobial origin is more frequent in our series than in previous. These differences may be due to the high percentage of patients with anal sex habits. The only biomarker that has shown usefulness in the diagnosis of prostatitis is ESR, much more than PSA, and it could be considered as a useful tool.

Conclusions: The main focus of our study lies in the atypical presentation of a high percentage of the diagnosed prostatitis, as fever without symptoms. We believe it is necessary to consider this condition in the differential diagnosis of a patient who complains of fever of unknown origin.

A-95
EVALUATION OF INFECTIOUS UNIT IN INTERNAL MEDICINE

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Objectives: Our department of Internal Medicine includes a specific HIV-infectious diseases Unit, that carries out his activity both in conventional hospitalization and by way of monographic consultations (HIV, hepatitis confection, tuberculosis, STD) and, occasionally, revision of immigrant and traveler pathology and patients that other departments send us. In our hospital the interconsultation demand for Internal Medicine is very intensive, so that an Interconsultations Unit was set up seven years ago with great success thanks to the full-time dedication of two doctors. The Interconsultations Unit has served mainly in the surgery services;

having a major role in General Surgery, Urology, Neurosurgery, Vascular Surgery, Otolaryngology, Orthopedics and Psychiatry Departments. In the last year (since May 2011) after the recent works of adaptation of main building hospital, a new specific Interconsultation Unit has been created to take over infectious diseases interconsultations; through the traditional route (request in the department secretary) or directly by calling to the pager. This project is carried out specifically by means of two doctors responsible for the conventional hospitalization of infectious diseases in the Internal Medicine department.

Material and method: We intend to analyze the number of interconsultations attended by our Unit, in the period from May 2011 to April 2012.

Results: We have served a total of 36 interconsultations in a regulated manner with monitoring during the entire stay, having made at least four visits to patients. The cause of the request is heterogeneous. We have seen 6 cases in ICU for HIV related problems, especially in relation to treatment or AIDS disease. In the first month we attended several patients (5) with prosthetic and surgical orthopedic materials infection, but stopped attending these patients after the Internal Medicine department decided by consensus to appoint for these tasks a specific physician from the general Internal Medicine interconsultations program. 6 interconsultations came from other surgical departments (Neurosurgery, General Surgery, Cardiac Surgery and Vascular Surgery), having all interventions been effective, facilitating the control of nosocomial infection and therefore hospital discharge. Additionally, we have followed Otolaryngology inpatients (3) with suspected TB; we initiated treatment and after follow-up in our consultations, in two of them the final diagnosis was not TB (one was a necrotizing external otitis in relation to Aspergillus and neck abscess in other caused by a bacterial cyst gill infection). We also gave support to diagnosis and control of infectious diseases in medical services: Cardiology, Hematology and Internal Medicine, consulted for HIV-related pathology (3) and regarding fever of unidentified infectious cause (3). It is remarkable the significant number of interconsultations related to Rheumatology hospitalization (10), since their patients present complex and severe infections related to immunosuppressive states of adjuvant treatment.

Discussion: We believe that we offer to our hospital a rapid and specific management of both HIV pathologies (related to advanced disease) and in specific treatment or in the treatment complications. Moreover, our infections disease Unit helps in the nosocomial infections control and antibiotic management, so important in the era of multi-resistant germs.

Conclusions: The Internal Medicine interconsultations with infectious disease profile are necessary and should be encouraged because they help in the infection control, especially in the nosocomial infection and the advice of specific antibiotics. The Internal Medicine interconsultations with infectious disease profile help develop multidisciplinary units so important nowadays for the management of inpatients who consume more resources. The Internal Medicine interconsultations with infectious disease profile help the early discharge.

A-96
EVALUATION OF THE SIDE EFFECTS OF TIGECYCLINE

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Objectives: Tigecycline is a broad-spectrum antibiotic recently marketed. We studied the situations where the drug is prescribed, the therapeutic indications, and patient characteristics, in order to assess the use of antibiotic and their adverse effects.

Material and method: We reviewed 42 reports of patients admitted in HUFA, for 17 consecutive months, through the institutional computer system. We collected the characteristics of the individual variables, according to Charlson comorbidity index and therapeutic indications by medical notes, nursing comments and analytical data. The analysis was performed using SPSS 15.0.

Results: During 17 months, 42 patients were treated with tigecycline, 59.5% were men, the median age was 80 years old; and 31% came from elderly residents. In 73% of the cases, the prescription was made by a medical service; of the total were 38% from internal medicine, 19% surgery, 9.5% digestive, 9.5% vascular, 9.5% intensive care unit, 7.1% traumatology, 2.4% neurology, 2.4% urology and 2.4% oncology. The median duration of treatment was 9 days. 23.8% of patients died meanwhile their hospitalization. The median Charlson index was 6 points. 42.9% of the patients were diabetics, and 11.9% cirrhotics. The main indications were soft tissue infection and abdominal infection (28% in each one). Other infections were urinary (23.8%), post-surgical (9.5%), pneumonia (4.8%) and other (5.9%). 47.6% of patients had some type of adverse reaction: gastrointestinal effects (nausea, vomiting and abdominal pain) 23.8%, increased INR 14.3%, mild thrombocytopenia 11.9%, diarrea 4.8%, rash 2.4% pruritus and phlebitis 2.4%. Adverse effects were analyzed by age, sex, comorbid with diabetes, liver failure, renal failure and immunosuppressive therapy, only one finding was statistically significant, with p 0.012 in patients with liver failure. It was observed that 100% of patients with liver failure had any adverse effects, of which 40% were elevated INR and 40% thrombocytopenia. Only in one case the treatment must be stopped because of adverse effect (increased INR), in 17 patients the pattern were ended, and in 18 patients by treatment´s adjustment to carbapenems in 16.7%, quinolones in 14.3%, and beta-lactams in 7.1%.

Discussion: The tigecycline adverse reactions are similar to those observed in other tetracyclines, that mostly are mild gastrointestinal effects. It was observed a statistically significant association between patients with liver failure and hematologic disorders.

Conclusions: It's needed to have a special attention to those patients with liver failure, in order to avoid hematologic disorders, because it can means the treatment's suspension. Taking into account the above we can conclude that tigecycline is a well tolerated drug, in spite of the important comorbidity of the patients presented in our study.

A-97
EVALUATION OF ADULT PATIENTS WITH MEASLES

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Objectives: Since the beginning of 2011 a measles outbreak has been detected by the health authorities of the Comunidad de Madrid (CAM) that has affected over 743 people. This measles outbreak is the most important since the end of the last decade, included all the exanthematous diseases. 40% of observed cases correspond to people in adulthood.

Material and method: We intend to evaluate all cases of adult patients (more than 16 years old) who were admitted to the Hospital Clínico San Carlos (population area of over 700,000 inhabitants, in a tertiary hospital) with this diagnosis. Therefore, we studied retrospectively all cases that required admission in both in the short stay unit under the Emergency Department and in Internal Medicine Department.

Results: Despite the significant measles outbreak registered in the CAM, few adults have required admission in the hospital for this reason: a total of 11 patients registered since the beginning of the epidemic. The mean age was 30 years, being most of them men (9) and with a risk factor: not well vaccinated, immunocompromised or pregnant. The chief complaint was persistent fever in all cases, along with rash onset. The presumed diagnosis was accurate in all cases and the income was related with the significant involvement of the patient, although without signs of gravity assessed by SIRS, pneumonia, respiratory failure or liver involvement. The reason for income was pregnancy in 2 cases and in clinical instability in the other 9 patients. The evolution of the patients was good, without pneumonia, but with onset of hepatitis in 50% of cases, conjunctivitis, and rash persisting longer than in the pediatric population. The discharge was early in all of them, under 7 days of hospitalization (mean 3.5 days), although follow-up visits were required both for confirmation of infection and for analytical recovery. Among the cases there was only one source case. Regarding vaccination, none of them have receive a vaccine according to current WHO recommendations (starting dose between 9 and 15 months of age with booster shot at 4 years), either because of their immigrant origin (5 of them) or date of birth before these guidelines were implemented (before to 1988).

Discussion: Although measles is not a high risk rash illness (except for the possibility of progressive paralysis), a greater impairment has been demonstrated when occurring in adulthood. Generalized vaccination in childhood has drastically reduced the possibility of developing this disease, but since the beginning of this century we have been witnessing different outbreaks in Spain (in different regions) and in the rest of Europe. Both the abrupt appearance of unvaccinated migrating population, and the tendency to non-vaccination of children in certain sectors of the population has contributed to this problem. Moreover, as we have seen in our patients, the main manifestations of the disease are similar to mononucleosis syndrome: important overall involvement, severe flu-like state along with persistent fever associated with conjunctivitis, and hepatitis. Although neurological disorders are feasible, at present the incidence is so low (1:1,000,000) that no cases have been reported (neither among those declared in the CAM so far, week 20, 2012). Pregnant patients have had no complications so far (having spent more than three months after diagnosis).

Conclusions: Exanthematous diseases with available vaccines have been down to the near disappearance in the late nineties. But since the beginning of this decade the outbreaks of these diseases are gradually increasing, according to data from the CAM, being remarkable the current outbreak of measles that our region still suffers. Among cases of adult measles, the possibility of developing a disease that requires income is below 10%, being prolonged fever, hepatitis and general malaise the main causes of hospitalization.

A-98
PREVALENCE OF HIGH RISK HPV INFECTION IN FEMALE SEX WORKERS IN SPAIN

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Objectives: Infection with high-risk genotypes of human papillomavirus (HPV) is the leading cause of cervical cancer. Prevalence data are variable depending on the population studied. The aim of this study is to determine the prevalence of HPV types in cervical samples and define epidemiological characteristics of women at significant risk of exposure (sex workers).

Material and method: This is a cross sectional study. We included all female sex workers (FSW) attending a sexually transmitted infection clinic in San Sebastián (Spain) to which we had taken a sample for cervical HPV detection by Polymerase Chain Reaction (PCR) between January 2009 and November 2011. GP5/GP6 primers were used and the genotyping was performed by InnoLIPA (Innogenetics). All had negative HIV serology and none were vaccinated against HPV. Variables collected were: birth, country of origin, regular partnership and condom use on genital and oral sex.

Results: For the analysis 6 of 313 women were excluded due to an unknown or undetermined HPV result. The mean age was 33 years (range 19-53). Overall HPV prevalence was 20.2%; 19% (17% high risk) in Americans (n = 251), 16% (13% high risk) in Europeans (n = 38) and 9% (4.5% high risk) in Africans (n = 22). HPV prevalence showed a decreasing trend by age; 36.8% for 25 years or younger, 19.5% for 26-34 and 10.4% for 35 years or greater ($p < 0.001$). The 16 genotype was the most prevalent (15.1% of all carriers), followed by type 35 (10.8%) and type 52 (7.5%), all of them with a high oncogenic risk. The prevalence of genotype 18 was 2.2%. Of the 93 HPV detected 63 were high risk (67.7%). Of the 62 positive women 75.8% (47) had at least one type of high risk and 19.4% (12) carried two high-risk types simultaneously. The genotypes covered by vaccines (16/18) showed a frequency of 4.9% in Americans, 7.9% in Europeans and 5% in Africans. Among women who use condoms during genital sex 19.8% had a positive result for HPV compared to 28.6% in those who did not. In addition, among women who use condoms during oral sex the prevalence was 21.3% compared to the 19.6% among those who did not. Depending on whether they had or not a regular partnership, the prevalence was 23.2% and 16.9%, respectively (differences not statistically significant).

Conclusions: The prevalence of HPV in cervical samples was 20% in our cohort of FSW being the most prevalent genotype 16. More than three quarters of those infected had at least one high risk genotype, which warns of the importance of screening and early diagnosis of potentially malignant lesions. There were not significant differences depending on the geographic area or a regular partnership.

A-99
SHORT REVIEW OF LISTERIA MONOCYTOGENES INFECTION: MAIN CLINICAL PRESENTATIONS AND ATYPICAL FORMS

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Objectives: Listeria monocytogenes, although an uncommon cause of illness in the general population, is an important pathogen in pregnant women, neonates, elderly individuals and immunosuppressed patients and, unless recognized and treated, results in significant morbidity and mortality. Listeriosis usually presents as a self-limited acute gastroenteritis in immunocompetent patients or with invasion of central nervous system (CNS) and sepsis of unknown origin in the immunosuppressed host. Currently, studies of atypical presentations of listerial infection are insufficient and little information exists in the medical literature about other clinical manifestations of listeriosis. After having a patient admitted to our ward with listerial pneumonia, it is our aim to review the cases of listeriosis in our hospital and understand the main clinical presentations of this infectious disease, with a special emphasis to the atypical presentations.

Material and method: We diagnosed a listerial pneumonia in a patient with history of diabetes mellitus and Hodgkin's lymphoma, presenting with lower respiratory tract infection and a blood culture positive for Listeria monocytogenes. We subsequently reviewed all cases of positive cultures for this pathogen in our hospital between January 2007 and May 2012 and identified 14 cases. We excluded 2 cases as they occurred in pediatric population. We reviewed each clinical file in order to identify the form of presentation, treatment and final diagnosis.

Results: We identified 12 cases of listeriosis in adult patients. The main form of identification was from blood (9) and cerebrospinal fluid (CSF) cultures (5) and one of the isolates was from a vertebral laminectomy. All patients, but one, had some form of immunosuppression, the most common being diabetes (5) and HIV infection (4). The main form of presentation was as sepsis of unknown origin (8) although clinical signs of meningitis were also present in 3 cases. Half of the patients were diagnosed CNS listerial infections and 3 were diagnosed severe sepsis of unknown origin. Three patients had uncommon listerial infections: 1 spondylodiscitis and 2 pneumonias. Antibiotherapy was initiated in all patients but one and duration of therapy was adjusted according with diagnosis, preexisting illnesses, and clinical course, being longer than 2 weeks in the majority of the cases.

Discussion: Our small series revealed listerial infections to be rare and majorly affecting immunosupressed patients (92% of our patients had some form of immunosupression). Despite in the overall population gastroenteritis seems to be the most frequent diagnosis associated to listerial infections, we found no such diagnosis in our patients (we admit they might be underdiagnosed as the majority of these patients present with self-limited brief clinical complaints and hardly ever get to be tested for blood or stool cultures). On the other hand, and accordingly to the literature, the majority of our patients had severe CNS infections. It is presently recommended that all patients in whom listeria infection is suspected, be tested for blood and CSF cultures to exclude CNS involvement. All of our patients were tested for blood cultures but only half (and whose meningitis was suspected) had lumbar punction done. Although most of our patients were treated for an average period of 3 weeks, antibiotherapy for listerial infections can be extended to 4-8 weeks in immunossupressed patients or in those with severe form of disease. It is interesting to notice that 3 of our patients had atypical presentations of listeriosis. There are only a few cases reported of Listerial pneumonia, occurring most frequently in patients with Hodgkin's lymphoma, but we found no references to spondylodiscitis caused by this pathogen.

Conclusions: Although uncommon, atypical presentations of listeriosis can occur. It is of extreme importance to confirm listerial infection and find its origin since it determines the choice and duration of antibiotic treatment. In cases of atypical presentation such as the ones reviewed, choosing the length of treatment can be challenging, and it is often empirical, since there is little, recommendations concerning the therapeutical approach in such cases.

A-100
PERSISTENCE OF HPV INFECTION IN FEMALE SEX WORKERS A PROSPECTIVE OBSERVATIONAL STUDY

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Objectives: The infection with high-risk genotypes of the human papilloma virus (HPV) is the leading cause of cervical cancer. The use of condoms has proven to be effective in heterosexual couples, however, we have insufficient data at higher risk of exposure. The aim of the study was to analyze the risk factors for infection/reinfection with HPV in cervix in a cohort of female sex workers (FSW).

Material and method: This is a prospective observational study. We included all female sex workers (FSW) attending a sexually transmitted infections (STI) clinic in San Sebastián (Guipuzcoa, Spain) to which we had taken, in two different visits, at least two samples for cervical HPV detection by Polymerase Chain Reaction (PCR) between January 2009 and November 2011. GP5/GP6 primers were used and the genotyping was performed by InnoLIPA (Innogenetics). All had negative HIV serology and none were vaccinated against HPV. Variables collected were: year of birth, regular partnership, condom use in genital and oral sex, HPV genotype and date of each visit. To evaluate the evolution over time of genotypes we compared 2 groups: patients who remain negative or become negative after an initial positive result (variable "negative") and patients who become positive after a first negative sample or a persisting positive result for either the same genotype or another (variable "positive"). Data were analysed with a chi-square test and a t-test for equality of means with a bilateral significance of p = 0.05.

Results: We included 101 women with the following features: mean age 32 years (range 20-50), 50.2% had a regular partnership and the prevalence of systematic use of condoms in genital and oral sex were 90.7% and 46.3%, respectively. The median number of visits was 2 (range 2-9) with a mean follow up of 17 months (SD 10.5). The geographical origin was 84% Latin Americans, 10% Europeans and 6% Africans. Thirty-two women had a positive result during the follow up, of whom, 11 acquired the infection or acquired new genotypes, 11 retained the same genotype, 9 converted negative after an initial positive result and 69 remained negative.

Conclusions: In our cohort with high frequency of reexposure frequent use of condoms has not shown a protective role against HPV reinfection or persistence. Conversely, we could not demonstrate that couples who do not usually implement preventive measures are at a higher risk. Only age is close to statistical significance in the resolution of infection.

Table 1 (A-100)

	% positives	p* Pearson's chi-square
Regular partnership (No/Yes)	22.7%/19.6%	0.707
Condom use in genital sex (No/Yes)	27.3%/21.6%	0.669
Condom use in oral sex (No/Yes)	21.3%/23.1%	0.8,0

Table 2 (A-100)

	Age (mean years)	p (bilateral significance of T test for equality of means)
Negatives/Positives	33.7/30.1	0.054
Regular partnership (No/Yes)	32.3/32.2	0.841*
Condom use in genital sex (No/Yes)	30.1/32.3	0.195*
Condom use in oral sex (No/Yes)	32.3/31.9	0.678*

Multivariate analysis.

A-101
ADEQUACY OF TREATMENT FOR METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) BACTERAEMIA

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Objectives: To determine the adequacy of treatment for methicillin-resistant Staphylococcus aureus (MRSA) bacteraemia.

Material and method: Review of clinical histories of patients admitted from January 2011 to December 2011 at the Hospital General Universitario de Alicante (800 beds) with MRSA bacteraemia, defined as the presence of MRSA in blood-cultures. Endpoint: Correct antibiotic treatment according to clinical guidelines. Consider appropriate treatment according to: 1) The type of drug: Vancomycin or Daptomycin at recommended dosage. Linezolid was considered appropriate in other focus than primary bacteraemia or endocarditis. 2) Duration: Fourteen days for uncomplicated primary bacteraemia, or pneumonia or bacteraemia from skin and soft tissue. Four to six weeks for complicated bacteraemia, endocarditis, and osteoarticular infection. Also collected data on age, sex, origin of bacteraemia (primary, central catheter, pneumonia, endocarditis, arthritis/osteomyelitis, infection of skin and soft tissue) and the acquisition (community or nosocomial), Vancomycin MIC and consultation with infectious disease unit.

Results: Twenty-six cases of MRSA bacteraemia were reported, and in 42% Infectious Disease Unit (IDU) consultation was request. The median age was 67 [Range 10-93], 54% were male. The origin of the infection was central venous catheter (35%), endocarditis (15%), primary bacteraemia (15%), pneumonia (15%), skin and soft tissue (8%), urinary (4%), arthritis (4%) and osteomyelitis (4%). Seventy-three percent of cases were nosocomial and 27% community-acquired. The MIC (Minimum Inhibitory Concentration; mcg/ml) of Vancomycin determined by e-test was = 1 (54%), ≤ 0.5 (23%) and = 2 (19%). Sixty-two percent were treated with Vancomycin. Appropriate antibiotic treatment was administered in 88%. There were 3 cases inadequately treated because of the use of another antibiotic not indicated (beta-lactams or quinolones).

Discussion: MRSA bacteraemia usually has a nosocomial origin related to central venous catheter infection. Despite the existence of guidelines for the management of MRSA infection, a high number of patients do not receive the optimal treatment. Although our study has not included clinical endpoints, the inappropiateness of the treatment has been related to a negative outcome and increased mortality, so the goal in the management of MRSA bacteraemia should be that every patient receive adequate treatment. This year, our centre is carrying out a program for optimazing the manegement of bacteraemia. Risk factors associated with inappropriate treatment have not been reviewed because of the small number of patients.

Conclusions: Twelve percent of the patients with MRSA bacteraemia admitted in a General Universitary Hospital do not receive adequate treatment, and this could negatively impact in the outcome.

A-102
EXTENDED-SPECTRUM B-LACTAMASE PRODUCING ENTEROBACTERIACEAE IN URINE CULTURES: A CASE-CONTROL STUDY

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Objectives: Extended spectrum B-lactamase (ESBL) are enzimes found in some enterobacteriaceae that confers them higher resistance to multiple antibiotics. Many risk factors have been related to the appearance of these ESBL producing enterobacteriaceae (ESBLPE) such as hospital admittance, recent antimicrobial drug exposure, living in nursing homes, urinary catheter, etc. The aim of this study is to evaluate the clinical evolution and the risk factors related to the appearance of ESBLPE in the urine cultures.

Material and method: We designed a retrospective case-control study. Using the database of the microbiology laboratory of our hospital, we identified all the positive urine cultures realized during the year 2011. We included all the urine cultures positives to ESBLPE from both inpatients and outpatients of all hospital services. Samples from pediatric patients and from relapses of urinary tract infection were excluded. For each positive culture we selected two random positive culture with other pathogens as control. Clinical and laboratory parameters from clinical histories were used to create a database. Data of the antibiotic treatment received were collected. Clinical evolution was evaluated analysing the mortality at 30 days and the relapse rate. We used Chi-squared and Fisher´s exact bilateral tests (qualitative variables) and the Mann-Whitney U and Student's t tests (quantitative variables) for univariant analysis. Logistic regression was used for multivariate study.

Results: We included 98 positive cultures to ESBLPE from 78 patients and 196 positive urine cultures to other microorganism. Risk factors for ESBLPE in the univariate analysis were: living in nursing homes (OR 6.9; 95%CI 2.4-19.6; $p < 0.01$), antimicrobial drug exposure in previous 90 days to urine culture (OR 2.78; C.I.1.6-4.6; $p < 0.01$), previous treatment with trimethoprim-sulfamethoxazole (OR 9.4; 95%CI 1.04-86.1; $p = 0.03$), fosmomycin (OR 6.5; 95%CI 1.7-25.4; $p < 0.01$), penicillin (OR 2.9 95%CI 1.4-5.9; $p < 0.01$), carbapenems (OR 7.1; 95%CI 1.4-36; $p < 0.01$), betalactham antibiotics (OR 2.4, 95%CI 1.3-4.3; $p < 0.01$) and glycopeptide antibiotics (OR 5.8; 95%CI 1.1- 30.8; $p = 0.03$). Risk factors for ESBLPE in the multivariate analysis were: living in nursing homes (OR 8.6; 95%CI 2.9-25.5; $p < 0.01$), chronic liver disease (OR 3.1; 95%CI 1.1-7.9; $p = 0.02$), solid organ transplant (OR 9.9; 95%CI 1.05-93.5; $p = 0.04$), antimicrobial therapy in previous 90 days (OR 1.9 95%CI 1.06- 3.5; $p = 0.02$). The presence of ESBLPE was associated to inadequate initial empirical antimicrobial therapy ($p < 0.01$). A higher relapse rate ($p < 0.01$) and mortality ($p = 0.05$) was associated to initial inadequate antimicrobial therapy.

Discussion: The growing incidence of ESBLPE is an emerging public-health concern and we must be aware in order to suspect the presence of these microorganisms on patients with risk factors. In our study we identified risk factors associated to the appearance of these bacterias in the urinary tract such as living in nursing homes, previous antimicrobial treatment, solid organ transplant and chronic liver disease. Our findings are similar to those described in the literature, supporting the fact that we must evaluate the possibility of using antibiotics of broad spectrum (such as carbapenems) as empirical therapy in patients with an urinary tract infection and risk factors, especially in the presence of severe infection, since we found a worse prognosis and a higher mortality rate in those patients in whom therapy with broad spectrum antibiotics was delayed.

Conclusions: Living in nursing homes, previous antimicrobial treatment, solid organ transplant and chronic liver disease are risk factors associated to the presence of ESBLPE in the urinary tract. We must consider the use of broad spectrum antibiotics in patients with a urinary tract infection and risk factors to ESBLPE.

A-103
TARGET POPULATION CHARACTERISTICS OF TUBERCULOSIS IN A GENERAL HOSPITAL OF MURCIA

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Objectives: The increased prevalence of tuberculosis in the last decade has been associated with the HIV pandemic, the longer life expectancy of people with immunosuppression, use of drugs that affect cellular immunity and, especially, with the increased immigration from the developing world. This facts, made us plan this descriptive study about our population affected by Tuberculosis, in an area where the immigrant population has now reached nearly about 40% of the total population. Objectives: determine the epidemiological characteristics of the population belonging to Area III of Lorca with tuberculosis, its location, method of diagnosis, drug resistance rates, association with immunosuppression and other risk factors, and mortality during hospitalization or at six weeks after discharge.

Material and method: Retrospective cross-sectional study in which we analyzed the data collected from medical records of patients admitted to our hospital, reference of the Murcia Health Area III, between 2006 and 2010, both inclusive, whit tuberculosis as a diagnosis at any location.

Results: The sample included 110 patients, of whom 67.3% were male and 32.7% were female, with a mean age of 35.74 years. Most of the population, 43.6%, was from South American origin, 33.6% were Spanish, 19.1% African and 3.6% from Eastern Europe. The average stay was 18.5 days and mortality rate was 3.63% (4 cases). As for the location of the disease 72.7% were lung, and 27.2% of extrapulmonary location divided into: 15.5% pleural, 1.8% pericardial, 1.8% Meningeal, 0.9% genitourinary, 0.9% gastrointestinal, 1.8% lymph nodes, and 1.8% spinal. Within the patients with pulmonary tuberculosis, 56.4% were bacilliferous. The diagnosis was made by microbiological techniques in 68.2% of cases, by analysis of biological fluids in 20.9%, from biopsy at 3.6% and 7.3% of clinical diagnosis. We only managed to regain antibiogram in 80 patients. Of these, 6 patients (7.5%) had resistance to isoniazid (ISH), 3 were resistant to ISH and streptomycin (3.75%), 1 was resistant to ISH, streptomycin and ethionamide (1.25%) and 1 was resistant to ISH, R and streptomycin (1.25%). Regarding the most important risk factors, in 48.71% of the cases we found no medical or epidemiological factors of interest, 12.82% had intimate contact or were cohabitants of patients diagnosed with tuberculosis, and 7.69% were active smokers.

Conclusions: In 2008, more than 80,000 cases of Tuberculosis were declared in the European Union, representing only a 1% decrease over 2007. In that year, Spain reported one of the largest incidence rates of Tuberculosis in Europe with 18.4 cases per 100,000 inhabitants, only beated by Romania and Great Britain; with 30% of the cases occurring in immigrants and with rates of primary resistance, according to the last NATO reports, of 8.3% and 1.3% of multidrug resistance. In the period of study, the incidence in our area was 13.86 cases/100,000 inhabitans/year, with 66.4% of cases occurred in immigrants, and a resistance rates of 12.5% and multidrug resistance of 1.25%, figures well above the national average. In view of these results, testing sensitivity to antibiotics routinely in our area and its monitoring annually its crucial, given the potential variability that cause migration waves in our population.

A-104
PULMONARY ASPERGILLOSIS AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE: AN ASSOCIATION UNDERESTIMATED

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Objectives: To describe the clinical forms of infection by aspergillus at our hospital and epidemiological factors most frequently seen in patients affected.

Material and method: In the Hospital of Toledo (Spain), which serves 420.000 people, were reviewed by computer coding system all hospital discharge letters, which include the words "aspergillosis" and "aspergillus" in the last 10 years. Initially 106 patients were found, 7 of them were excluded because of sample contamination.99 patients constituted the study subjects. Collected data, included clinical, radiological, and pathological and microbiological variables as well as diagnostic interpretation and treatment.

Results: During the study period, 99 patients were diagnosed of aspergillosis. Of these patients, 78 (77.2%) were males. 16 (16.16%) were colonized, while 83 (83.83%) had a form of pulmonary aspergillosis, characterized as aspergiloma (13.3%), allergic bronchopulmonary aspergillosis (ABPA) (14.45%) and invasive pulmonary aspergillosis (IPA) (72.3%). Of these cases of IPA, according to the criteria of European Organization for Research and Treatment of Cancer/Invasive Fungal Infections Cooperative Group (EORTC) and the National Institute of Allergy and Infectious Disease Mycoses Study Group (MSG), 6 of them were possible, 53 probable and 1 proven. The dominant species was A. fumigatus (78.7%) and less common were A. niger (7%) and A. flavus (1.9%). 57 cases were patients with chronic obstructive pulmonary disease (COPD) and 31 immunocompromised patients, 13% of them had hematological malignancy, 15.7% other malignancy and 46% solid-organ transplant recipients. The host factors identified were: corticosteroids or T cell immunosuppressive agents, prolonged use of antibiotics and history of neutropenia. 61.1% of patients were treated, 37% received voriconazole, 15.7% itraconazole, 0.9% echinocandin and 9.3% azol and echinocandin.

Discussion: Aspergillus spp. are ubiquitous fungi acquired by inhalation of airborne spore and may cause life threatening infections depending on immune status and the presence of underlying disease. There are different clinical forms of aspergillosis, in our population the most frequent is IPA. Risk factors described in the literature are treatment with corticosteroids, T cell immunosuppressive agents, prolonged use of antibiotics and history of neutropenia which consist with those described in our series. For immunocompromised patients there are defined risk factors, diagnostic criteria and practice clinical guidelines that simplify the management of these patients. However, despite growing evidence suggests that COPD patients are at higher risk of developing invasive forms of aspergillosis, standardized diagnostic criteria don't exist and there are few studies about this population. In our study, 64% of patients with IPA were COPD, slightly higher than values reported in the literature, ranging from 30% and 50%. Most of the COPD patients are severe COPD with several reasons for susceptibility to IPA or colonisation, such as prolonged use of

corticosteroid therapy, frequent hospitalization, antibiotics treatment and co-morbid illnesses (diabetes mellitus, malnutrition).

Conclusions: -The clinical form of aspergillosis most frequently seen in our patients was invasive pulmonary aspergillosis.-Most of our patients were male, severe COPD, with prolonged treatment with corticosteroids. To date, frequency of IPA in COPD patients has been poorly documented, but recent reports have demonstrated that these patients are a risk group. For these reasons we think that further studies should be performed in these patients.

A-105
CLINICAL AND ANALYTICAL DIFFERENCES BETWEEN THE INFLUENZA A VIRUS SUBTYPE H1N1 AND INFLUENZA A VIRUS SUBTYPE H3N1 AMONG HOSPITALIZED PATIENTS IN THE COMPLEJO ASISTENCIAL UNIVERSITARIO DE BURGOS

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Objectives: To analyze the clinical course and analytical laboratory differences between the influenza A virus subtype H1N1 and influenza A virus subtype H3N1 among hospitalized patients in the Teaching Hospital in Burgos during the seasonal periods 2010-2011 and 2011-2012 respectively.

Material and method: This is a retrospective cohort study in which 107 patients were analyzed in the Internal Medicine and Pulmonology departments in a tertiary care hospital. Two groups were compared: the first sample consists of 30 patients affected by influenza A virus subtype H1N1 between October 2010 and April 2011, and the second sample consists of 77 patients affected by influenza A virus subtype H3N1 between October 2011 and April 2012. The diagnosis was confirmed using the PCR technique in nasopharyngeal aspiration and throat culture. We made a comparison between the clinical manifestation and the analytical alteration of the samples.

Results: In the sample of influenza A virus subtype H1N1, patients showed, in frequency order, respiratory symptoms such as cough (86.7%), expectoration (23.3%), dyspnoea (56.7%) and bronchospasm (40%). Other symptoms were fever (80%), myalgia (60%), digestive symptoms (36.7%) and pleuritic pain (23.3%). In the sample of the influenza A virus subtype H3N1 patients showed respiratory symptoms like cough (85.7%), expectoration (55.8%), dyspnoea (71.4%) and bronchospasm (58.4%); also the results showed fever (74%), myalgia (24.7%), digestive symptoms (19.5%) and pleuritic pain (16.9%). The arterial blood gas was applied to 85% of the patients at their arrival to the hospital, subtype H1N1 evinced pO_2 < 60 in 53.8% and subtype H3N1 in 61.5%. We want to emphasize the discovery of leucopenia (20%) in subtype H1N1, opposite to leukocytosis (22%) in subtype H3N1.

Discussion: Influenza is a respiratory illness which spreads mostly in winter throughout the world, and it is caused by influenza viruses' type A or B. Several signs and symptoms are involved with the upper and/or lower respiratory tract, along with other systemic illnesses such as fever, headache, myalgia, and weakness. Although this infection is self-limited in the general population, it is associated with two important factors: increased morbidity and mortality in high-risk populations. Our research has found clinical differences between influenza A H1N1 (2010-2011) and influenza A H3N1 (2011-2012).

Conclusions: There are clinical signs in both infectious processes that together with the total number of leukocytes, could reinforce the diagnosis to one type or the other.

A-106
EFFICACY AND TOXICITY OF PEGYLATED INTERFERON ALPHA 2A AND RIBAVIRIN IN PATIENTS COINFECTED WITH HIV-HCV

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Objectives: The HCV is a factor that independently predisposes to the emergence of hepatic fibrosis. Hepatic decompensation is the second leading cause of death in HIV patients co-infected with HCV. Getting a sustained viral response after treatment reduces complications, liver-related mortality, HIV progression and mortality unrelated to liver disease. Our objective was to study the efficacy and toxicity of antiviral treatment with Peginterferon (PegIFN) + Ribavirin (RBV) in our population and analyze the variables associated with sustained virological response (SVR).

Material and method: Design: Retrospective cohort study. We included all patients with HIV-HCV coinfection who began treatment for HCV between March 2003 and January 2011 at our center. For genotypes 1 and 4, the intention was to try it for 48 weeks for genotypes 2 and 3, for 24 weeks. The main variables collected were: HCV genotype; baseline HCV-RNA; percentage of responders at end of treatment and percentage of patients with SVR. Other variables were age and sex; mean duration of treatment; percentage of patients discontinuing treatment; grounds for termination of treatment; baseline CD4 cell count; ART early HCV; serial values of hemoglobin, ALT, neutrophils and platelets; doses of PegIFN and RBV; variables related to toxicity and management of adverse effects associated with medication.

Results: During the study period 42 patients were included. In an intent-to-treat analysis, 38% of patients had SVR. 2 were lost in the follow up (4.7%) whilst 4 patients discontinued due to toxicity (9.5%). There were 16 virologic failure during treatment (38%) and 4 after its suspension (9.5%). 20% required treatment with G-CSF and 20% with erythropoietin. The PegIFN and RBV doses were changed by 11.4%. The variables associated with SVR were: polymorphism in the IL28B gene favorable (CC versus CT/TT) with OR: 7, CL95%: 1.14 to 43.0; p = 0.001; undetectable viral response at week 12 (OR 26, CL95%: 2.8 to 241, p = 0.001) and a duration of 6 months versus 12 months (OR 0.083, CL95%: 0.009 to 0.76, p = 0.022). Neither sex, age, genotype, baseline HCV CV, ART, viral response at week 4 or modification of PegIFN nor RBV were associated with SVR.

Discussion: The efficacy of PegIFN and RBV in our cohort is similar to that observed in clinical trials (ACTG 5071, APRICOT, Laguno, RIBAVIC, etc.). Toxicity is not negligible. It is noteworthy that classical variables such as genotype, baseline viral load of HCV or rapid viral response (undetectable VL week 4) were not associated with SVR in our study. This may be due to small sample size and possible lack of association of relevant variables or for not adjusting for multivariate analysis (due to small sample size).

Conclusions: PegIFN and RBV Treatment in patients with HIV-HCV co-infection, showed no effectiveness and toxicity is not negligible. The favorable polymorphism of the IL28B ++++ (CC), an undetectable VL at week 12 and a prolonged duration of treatment (12 months) in our study was associated with SVR.

A-107
PROSTHETIC JOINT INFECTIONS IN THE ORTHOPEDIC SURGERY DEPARTMENT. REVIEW OF THE YEAR 2011

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Objectives: To describe the etiology and treatment of prosthetic joint infections diagnosed during the year 2011 in the Orthopedic Surgery Department.

Material and method: A retrospective observational study of the prosthetic joint infections diagnosed in the Orthopedic Surgery Department of the Nuestra Señora del Prado Hospital during the year 2011 was performed.

Results: 16 medical records of patients with the diagnosis of prosthetic joint infections in 2011 were reviewed. Among these, 5 were diagnosed and treated according to the current medical Guidelines, 4 did not follow any formally established treatment and 5 had an uncertain diagnosis. The most common location of infection was the knee (50% of cases) followed by the hip (44%). The most common etiologic agent was Staphylococcus sp. present in 62.5% of patients (10 out of 16), being the methicillin-sensitive S. aureus the predominant agent in 50% of cases (8 out of 16) followed by S. epidermidis, S. capitis. Other microbiological agents involved were E. faecalis, Pseudomonas sp, C. albicans and S. agalactiae (one case each). The prosthetic material was removed in all the prosthetic joint infections in which treatment Guidelines were followed. One was a septic shock due to early infection and the rest were late infections. On the contrary, in the 4 cases that did not follow the treatment Guidelines surgical cleaning of the prosthesis was performed even though they should have been removed because they were late infections of prosthetic joints. In 44% of the patients quinolone (levofloxacine) was used, followed by beta-lactams (amoxicillin-clavulanate). In most cases rifampicin was the second antibiotic added to the treatment. In only one case linezolid was used due to the resistance to other antibiotics. There was only one.

death in the group of prosthetic joint infections who did not follow the treatment Guidelines.

Discussion: The infection and loosening of the prosthetic joint are the main and most feared potential catastrophic complication of the Orthopedic Surgery patients. It involves potential skeletal deformities, delayed reimplantation, severe decreasing of quality of life and a high economic cost. In the last decade the incidence of prosthetic joint infections has decreased due to the improvement of surgical techniques and antibiotic prophylaxis, 1.5% in hip prosthesis infections and 2.5% in knee prosthesis infections. The agent most commonly involved according to the published data is Staphylococcus sp, including S. aureus and coagulase-negative Staphylococcus, present in 22% of infections. This fact is also seen in our study. Given that the surgical treatment is not well defined and since unsatisfying results were obtained, removal of prosthetic material is recommended in all cases with the exception of early prosthesis infections during the first 3 weeks after implantation. Correct surgical treatment was only performed in 4 out of 16 cases. Clinical Guidelines recommend the use of rifampicin associated with quinolones for the treatment of infections caused by Staphylococcus sp, as the treatment of choice. Beta-lactams and glycopeptides are recommended for gram positives cocci infections. The use of linezolid is only recommended if there is any resistance to other antibiotics. Quinolones should rather be used for treatment of enterobacteria and P. aeruginosa. In our study all patients received antibiotic treatment according to the current published guidelines.

Conclusions: The results of predominant etiological agent and the treatment chosen in our study agree with other studies published. We must stress the proper surgical management as the main factor that determines the satisfactory outcome of the prosthetic infections. The most affected joints in which a proper treatment according to the clinical Guidelines is performed, are the knee and the hip.

A-108
NEUROLOGICAL MANIFESTATIONS OF ACUTE Q FEVER REPORT OF TWO CASES

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Material and method: Introduction: Coxiella burnetii the agent of Q fever produces a variety of clinical syndromes. In the course of acute Q fever, severe headache is frequently observed but other neurological manifestations are unusual. Aseptic meningitis, encephalitis or encephalomyelitis and peripheral neuropathy have been described. Furthermore, a Guillain Barré syndrome has exceptionally been observed. A total of 90 acute Q fever cases were recorded from January 2003 to December 2011 in the Hospital Son Llàtzer in Palma de Mallorca (Spain) and were reviewed for neurological complications. Patients were considered to have acute Q fever when serological procedures showed Coxiella burnetii phase II titers IgM positive 1:40 or a four-fold increased of the IgG titer beween two consecutive assays with appropriate clinical criteria.

Results: Case 1: A 35-year-old man was admitted to hospital with a 4-days history of severe headache fever and vomiting. The physical examination was normal except by the presence of nuchal stiffness. Laboratory test showed AST 155 U/L, ALT 193 U/L, GGT 87 U/L and LDH 864 U/L, VSG 23mm/h and PCR 153.5 mg/L. Cerebrospinal fluid (CSF) obtained by lumbar puncture showed a white cell count of 12 cel/mm3 (lymphocytes) and a protein concentration of 47.0mg/dl. Culture for bacteria, mycobacteria and virus were all negative. Chest radiography, cranial CT and transthoracicechocardiography were normal. Serological tests for HBV, HCV, Rickettsia, CMV and Epstein-Barr virus were all negative. Antibody titer for Coxiella burnetti were positive: IgG Phase II 1/5120 and IgM Phase II 1/320. The patient was diagnosed of lymphocyte meningitis due to Coxiella Burnetti and received treatment with doxicicline 14 days, with complete recovery. Case 2: A 34-year old man intravenous-drug abuser visited the emergency room, complaining of progressive tetraparesis and headache. On admission, the initial exam demonstrated right facial nerve paresis; manual muscle testing revealed grade 3/5 proximal and 4/5 distal and global arreflexia was observed. Laboratory test revealed AST 73 U/L, ALT 137 U/L, GGT 209 U/L and ESR 22 mm/h. CSF examination demonstrated absence of pleocytosis and proteins 66 mg/dl) and PCR of S. agalactiae, H. influenzae type b, S. pneumoniae and N. meningitidis were negative. Culture of CSF and blood did not grow any bacterial. Electrophysiological studies showed a severe acute axonal neuropathy in sural nerves. Chest X-ray was normal. Autoimmunity study including antiGM-1 IgM antibody and anti ganglioside antibody were negative. Serological testing for HIV, syphilis, Epstein-Barr virus, CMV, Varicella-Zoster virus, Borrelia burgdorferi and Mycoplasma were all negative, except for Coxiella Burnetti (IgG phase II > 1/80 and IgM phase II 1/40). An acute inflammatory radiculoneuropathy type Guillain Barré syndrome (axonal variant) was diagnosed and the patient begun treatment with intravenous

immunoglobulines. Clinical improvement was observed, the patient was discharged and lost to follow-up.

Conclusions: The clinical evidence of CNS involvement is not a rare feature of acute Q fever infection and Coxiella burnetii should be considered as a possible etiology of meningitis or meningoencephalitis as well as Guillain Barré syndrome in our area.

A-110
SKIN AND SOFT TISSUE INFECTIONS RELATED TO THE DIABETIC FOOT

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Objectives: The aim of this study was to describe epidemiological, clinical, microbiological characteristics and treatment of skin and soft tissue infections related to diabetic foot in our setting.

Material and method: A retrospective study of all patients, over 14 years old, who were admitted to Hospital Son Llàtzer between January 2002 and December 2011 were studied all of them suffered diabetic foot plus one of the following diagnosis: subcutaneous abscess or cellulitis/lymphangitis/erysipelas.

Results: We studied 63 cases in 50 patients, 68% males and 30% women, with an average age of 65 (range 43-91) years. Most of the cases, 50 (79%), were admitted to General Surgery ward, followed by Internal Medicine, 10 cases (15.9%), and other departments, 3 cases (4.8%). In 54 (85.7%) cases the diagnosis was cellulitis/erysipelas/lymphangitis while in 9 (14.3%) was subcutaneous abscess. Seventy three percent were considered community adquired, 14% health-care related and 3% nosocomial. Number of cases remained stable over the years. None patient were HIV-infected or UDPV. In 34 (54%) episodes patient was been treated with antibiotic 6 months before admission. In 26 (41.3%) episodes the patient has a diagnosis of peripheral vascular disease, 12 (19%) cerebral vascular disease, 3 (4.8%) coronary disease and 8 (12.7%) end stage renal disease requiring hemodialysis. A culture of soft tissue focus was collected in 27 episodes, being positive in 25 (39.7%), with the following microbiological isolates: 10 (15.9%) S. aureus (2 MRSA), 6 (9.5%) flora mixed aerobic-anaerobic, 5 (7.9%) E. coli and other enterobacteria, and 1 case (1.6%) of S. pyogenes and P. aeuriginosa respectively. Also, in 5episodes blood cultures were positive (2 S. aureus) In 44 episodes (69.8%) empirical treatment was with monotherapy and the more prescribed antibiotic were quinolones, in 24 (38.1%) cases, followed by beta-lactam other than penicillin, in 20 (31.7%). A change of antibiotic was performed in 19 (30.2%) cases, being the main reason after microbiological results followed by clinical impairment in 3 (15%). Surgical debridement was necessary in 25 (39.7%) episodes, and one amputation was required in 16 (25.4%). Medical complications were presented in 9 (14.2%) episodes: 5 (7.9%) cases with severe sepsis, 3 (4.8%) with shock, and 1(1.6%) with septic metastases. Eleven (22%) patients died during admission, where 3 cases (6%) were related due to infection.

Conclusions: Soft tissue infections in patients with diabetic foot in our setting are frequently community acquired, being the cellulitis the most frequent diagnosis, and most of them are admitted in Surgery wards. S. aureus is the main isolated microorganism with a low prevalence of MRSA. Quinolones monotherapy is empirical threatment most prescribed. Amputation is frequent and mortality seems to be negligible.

A-111
THE USE OF BLOOD CULTURES IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Blood cultures (BC) remain the major diagnostic test for hematogenic infections but criteria for BC use is still debated. The current tendency is to perform less BC with larger volume samples and more strict indications. Several factors have been pointed to what seems to be an excessive use of this test contributing to increased length of stay (LoS) and hospital costs. Recent guidelines for the use of this test have been published. Data about BC utilization in general Internal Medicine (IM) wards is scarce. We aim to characterize the utilization and evaluate the usefulness and costs of BC in an IM ward.

Material and method: Observational study with 12 month retrospective data collection from the hospital admissions in an IM ward of a University Hospital. For BC positivity analysis a representative sample of 400 patients was selected. The admissions were classified in 2 groups (with and without infectious condition) for comparative analysis. Data sources: clinical and microbiologic tests electronic databases. Main variables recorded: demographic patient data (gender and age); LoS; discharge destiny and deaths; diagnosis (coded with the International Classification of Diseases 9th revision and recoded with the Clinical Classifications Software); number of BC (total and positive) and Elixhauser and Charlson comorbidity indexes for each episode.

Results: There were 4160 admissions with female predominance (55.6%). The mean age was 73.0 years and the average LoS was 6.9 days. The death rate (DR) was 11.4%. In the patients with a final diagnosis of infection (56.9%) the gender distribution (females: 56.9%) was similar to the group without infection (53.7%) but the mean age was higher (74.7 vs 70.7 years ($p < 0.001$)). We also found a significant difference in the mean LoS (8.2 vs 5.3 days ($p < 0.001$)) and DR (12.3% vs 10.3% ($p = 0.05$)). There was a higher number of diagnosis and Elixhauser score in the group with infections (7.8/2.7 vs 6.2/2.1; $p < 0.001$) but similar values in the Charlson score (2.2 vs 2.2). Blood cultures were performed in 37.3% of patients (50.9% among the group with infections and 19.4% in those without). The total number of BC was 4353 (86.4% aerobic). In the 1553 patients with BC the gender distribution (52.5% females) and mean age (73.4 years) were similar to those without BC. Nevertheless the average LoS (9.5 days) and DR (14.0%) were higher ($p < 0.001$). This profile was present in the split analysis of BC with or without infections. The average number of BC per episode was 2.8 with no differences regarding the presence of infection. In 5.0% of patients only 1 BC was made and this was seen across both groups and in 63.0% of cases fewer than 3 samples were collected. The global BC positivity rate was 11.2% (13.6% in patients with infections and 4.5% in those without). The gross estimation of costs directly related to BC ranges 56,000€ annually. In a logistic regression model including age, sex and LoS as additional independent variables, the strongest predictor for BC utilization was the presence of an infectious condition (odds ratio: 3.86; $p < 0.001$).

Discussion: In our series there is a high utilization of BC, mostly in patients with diagnosis of infection. Nevertheless BC were performed in a fifth of discharged patients without infection. Although only in a small proportion of cases a single BC sample was collected, in the vast majority less than 3 samples were used. Further analysis on the individual BC results and its consequences in terms of therapeutic and other clinical attitudes from physicians may provide additional insight regarding the optimal number of BC samples per patient, since this is still a much debated matter. The reduced BC positivity rate in our study (11.2%) is in line with the

figures presented in other series where it ranges from 9% to 20% depending on the clinical setting (greater in intensive care units), but no major series on IM wards are available.

Conclusions: Our data leads us to consider that there may be inappropriate use of BC which warrants further studies to define the adequacy of BC requests since these represent a considerable cost. Given the broad utilization of BC in the setting of IM, the implementation of clear clinical guidelines for its appropriate use is crucial.

A-112
INFECTIVE ENDOCARDITIS: THE ROLE OF AGE AND RENAL STATUS

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Objectives: To evaluate clinical features and prognosis of patients with Infective Endocarditis (IE) admitted to a recently opened institution (Infanta Leonor Hospital).

Material and method: A transversal and retrospective study was carried out using clinical records of patients with the diagnosis of IE between February 2008 and May 2012. Demographic, clinical, diagnostic, therapeutic and prognostic variables were taken from the patients clinical record. The presence of IE was confirmed by Duke´s Criteria and by echocardiography. A descriptive analysis of quantitative and qualitative variables was carried out. A univariant analysis was perfomed using Fisher test and U Mann Whitney to evaluate data regarding prognosis.

Results: Eighteen patients with IE were included. The average age was 68.67 years, of whom 56% had previous heart disease, 33% wore prosthetic valves and 17% had pacemakers. Regarding the ethiology of the IE: 47% was due to Staphilococcus aureus, 12% Staphilococcus epidermidis and 18% to Enterococcus. Heart failure was the most common complication and was significantly more frequent in patients that had a prosthetic valve compared to those without it (65% vs 37%) p = 0.032. Higher levels of creatitine in patients with IE (1.8 mg/dl vs 1.3; p = 0.348) were associated to been hospitalized in an intensive care unit, to the need of a replacement valve surgery and a higher risk of death. Mortality due to IE is related to elderly people (83 years vs 63 years; p = 0.059).

Conclusions: Regarding our findings, IE usually affects patients with heart disease that have a prosthetic valve. Prosthetic valve IE contributes to the development of heart failure, the patients transfer to Intensive Care Unit or to a Cardiovascular Surgery Unit, especially in patients with kidney failure. Elderly patients with IE have higher rates of mortality. These could be explained by the fact that these patients have different surgical issues.

A-113
PATIENTS WITH POSITIVE CULTURE FOR METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) ADMITTED TO AN INTERNAL MEDICINE SERVICE

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Objectives: To describe the characteristics of patients admitted to the Internal Medicine Department of the Hospital Comarcal de Blanes (Blanes County Hospital) with a positive culture for MRSA during the period 2008-2011. Data obtained from the centre's Epidemiological Surveillance team have been used as source.

Material and method: A descriptive study of patients admitted between 2008-2011 in our department with positive culture for MRSA (infection or colonization). The data have been extracted from the centre's registry monitoring and control system. Demographic and clinical data have been analyzed.

Results: We analyzed 139 positive cultures for MRSA in samples from 72 patients admitted to Internal Medicine. Of these patients, 58 were isolated (in 45 cases only by contact and in 13 cases by contact and respiratory isolation). The mean age of patients was 79.3 years. Of the 72 patients, 36 patients were colonized, 35 infected and 1 indeterminate case. Samples were collected for screening in 50.3% of cases and the rest for signs of infection (49.7%). Provenance of the 139 samples were: wounds (5.75%), sputum (10.7%), nasal swabs (43.8%), ulcers (29.5%), blood culture (4.31%), urine (4.31%) and others (4.31%). The patients were admitted from acute hospitalization (3), home (27) and nursing home for the most part (42). 14 patients had previously known MRSA, unknown in 8 cases and negative in 50. Patients were admitted for different reasons: cardiac in 9 cases, neurologic (stroke/encephalopathy) in 4 cases, respiratory (pneumonia, chronic obstructive pulmonary disease) in 25 cases, thromboembolic disease (2 cases), ulcers and wounds (5 cases), fever in 11 cases and miscellaneous (14 cases). The mean stay of these patients was 13.76 days (17.6 days in those who met criteria for infection and 10.9 days in those colonized), compared with the total global mean stay in patients admitted to Internal Medicine during this period of 7.2 days. Patients were hospitalized a mean of 6.3 days before the establishment of isolation measures. Overall mortality in patients with MRSA was 17 patients (23.6%), directly attributable to the MRSA infection in only 3 cases. Overall mortality in the same period of patients admitted to Internal Medicine during this period was 6.5%.

Conclusions: MRSA infections are the leading cause of isolation in a county hospital. Our sample shows an association of infection or colonization by MRSA and a longer mean length of stay and with an increased overall mortality compared to patients in the same period. Our data shows a time lapse between the patient's admission and instauration of measures of isolation up to 6.3 days, which makes us consider that an increase in the suspicion and early detection is necessary in our centre.

A-114
UTILITY OF 18F-FDG PET-CT IN THE EVALUATION OF INFECTION SPREAD AND BACTERAEMIA

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Objectives: To evaluate the utility of 18F-FDG PET-CT scan in detecting the spread of infection in patients with a known infection source and the source of infection in patients with bacteraemia.

Material and method: Twenty-four consecutive patients (mean age 73 y; range 44-88 y) were studied in order to assess the spread of infection from a known infection source (9 patients) and the infection source in patients with bacteraemia (15 patients). All patients had undergone radiological imaging exams with non-conclusive findings. In the 9 patients with known infection source, these were localized in: bone (3 patients with osteomyelitis or spondylodiscitis), 4 patients with endocarditis, 1 with septic

arthritis and 1 with pleuro pericarditis. Positive blood culture for: E. coli, S. aureus, S. epidermidis, Pseudomonae, Enterococcus faecalis, Klebsiella, Enterococcus and Serratia were found in the other group of patients. All patients underwent a whole-body PET-CT (Gemini TF hybrid tomography) scan.

Results: Four out of nine patients (45%) with a well-known infection source had new non-suspected septic spread to: spine, septic arthritis and pacemaker. In the group of patients with bacteraemia, infectious processes were found in 6/15 (40%) studies: prostate (2 patients), lung (3 patients) and vertebral osteosynthesis. These findings were clinically confirmed and patient's symptoms subsided after treatment. In 5 patients with negative PET-CT infectious foci in urinary tract and heart (endocarditis) were posteriorly detected after clinical follow-up.

Conclusions: 18F-FDG PET-CT has been able to demonstrate unsuspected spread from infectious sources and in localization of primary infection sources in patients with bacteraemia.

A-115
BACTERIAL BRAIN ABSCESS: EPIDEMIOLOGY, MICROBIOLOGY, TREATMENT AND PROGNOSIS

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Objectives: Brain abscesses are intraparenchymal collections of pus. Their incidence is approximately 1-2% in western countries. We wanted to analyze the characteristics of brain abscesses, as well as epidemiology, clinical findings, microbiology and treatment in our environment.

Material and method: We made a retrospective study of all the adults with diagnosis of bacterial brain abscesses admitted to our hospital from 2000 to 2010 and we collected epidemiological, diagnostic and microbiological facts. These data were analyzed with SPSS v. 18.0.

Results: There were 29 patients studied. We found 25 males (92.67%) and only 2 women. The mean age was 49.03 years (range 16-84). Of all the patients, 17 of them (60%) were immunosuppressed. The most frequently observed symptoms at diagnosis were neurological deficits (53.6%), where motor disturbances should be noted (24.1%). We also found a high rate of altered level of consciousness (50%), headache (42.9%) and fever (39.3%). Leucocytosis was observed in 18 patients (62.5%). Time elapsed from the onset of symptoms to the diagnosis was 9.75 days (range 0-90). All the patients were initially diagnosed using an image technique. The most common location for brain abscess was the frontal lobe (25%) although we found no differences between the hemispheres involved. When we analyzed the origin of the infection, 13 cases (44.4%) were associated to haematogenous spread and only 10 (33.3%) came from the extension from a contiguous infection. 23 patients had a positive microbiological culture, 20 of which (71.4%) were monomicrobial. Gram positive cocci were the most frequent isolated group, present in 14 cases (47.8%). Antibiotics were administered to all patients, while drainage was only necessary in 17 cases (60.7%). Complete remission was reported in 15 patients (75.9%). 6 patients died (20.7%) and there was only one recurrence.

Conclusions: Although brain abscesses are not a common disease, they still are a potentially fatal entity. This study shows that they are much more frequent in males and immunocompromised patients. Compared with literature, we should stand out how they are more frequently located in the frontal lobe and their haematogenous origin.

A-116
RETROSPECTIVE STUDY OF PATIENTS ADMITTED WITH LEPTOSPIROSIS AT DR. NEGRIN GENERAL HOSPITAL IN THE PERIOD 2000-2011

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Objectives: To describe the clinical figures of patients diagnosed of leptopirosis and admitted in our hospital in the last 11 years, and analyse the factors related to bad prognosis.

Material and method: An observational and retrospective study of patients admitted in our hospital in the period 2000-2011 with signs and symptoms of leptospirosis as well as positive IgM ELISA test was conducted. Demographic variables, signs, symptoms, complications during the admission, laboratory and radiology tests, antibiotics received, average stay in the hospital and clinical evolution were also taken into consideration. A descriptive analysis of the sample was also made. Afterwards, a bivariate analysis was carried out in order to rule out predictive parameters related to bad prognosis. To accomplish this last goal, an independent Chi square test was used.

Results: Leptospirosis was diagnosed in 28 patients, 23 men (82.1%) and 5 women (17.9%). The mean age was 59.5 years (SD 15.4), being 64.3% of the patients from rural areas. Risky professions were identified in 32.1% of the cases and another 50% referred contact with animals. Alcohol intake was referred in 46.3% of patients. Outbreaks were not observed. Patients came to the hospital after an average 10.3 days onset of the symptoms. The most common signs were: abdominal pain (57.1%), asthenia (50%), myalgias (46.4%), vomiting (46.4%), nausea (42.9%) and diarrheas (32.1%). The most remarkable signs were: fever (85.7%), jaundice (64.3%), oligoanuria (60.7%), hepatomegaly (50%), coluria (42.9%) y dehydratation (39.3%). An abnormal chest X-ray on admission was found in 53.6% of the patients. Ceftriaxone was prescribed in 39.3% of the patients and doxycicline in 46.4% during around 13.3 days. Acute renal failure was found in 75% of the patients and hemodyalisis was indicated in 39.9% of them. Shock signs were presented in 64.3% of the patients, needing to be transferred to intensive care unit. Five patients (17.9%) died due to multiple organ failure. Signs of massive pulmonar hemorrhage were described in the autopsy performed in three of them. The mean hospital stay was 18.6 days (SD 17.4) Vomiting ($p = 0.02$), diarrheas ($p = 0.042$), abdominal pain ($p = 0.014$), jaundice ($p = 0.002$), coluria ($p = 0.04$), oligoanuria ($p = 0.006$), hypotension ($p = 0.001$), taquichardia ($p = 0.014$), taquipnea ($p = 0.004$), Hb < 10 gr/dl ($p = 0.02$), leukocytosis > 15400 ($p = 0.011$), low platelet account < 156000 ($p = 0.022$), Cr > 1.3 mg/dl ($p = 0.07$), CK > 40 ($p = 0.041$) and total hyperbilirrubinemia > 3 ($p = 0.01$) were found to be associated to severe cases who had to be transferred to the intensive care unit.

Discussion: In spite of having conducted the study for a period of 11 years, the sample was small so the results obtained should be carefully interpreted. Men over 60 years coming from rural areas prevailed in the sample without identifying an epidemiological antecedent in half of them. Typical signs and symptoms denoting multiple organ involvement and a significant percent of in-hospital complications were also found as described in other published studies.

Conclusions: Leptospirosis is not a common disease in our area but it is potentally letal. Signs and symptoms of leptospirosis must be well known so that a quick diagnosis and treatment may be done. Bad prognosis factors easily recognizable at the moment of admission were identified in our sample.

A-118
PROSPECTIVE STUDY OF CANDIDA BLOODSTREAM INFECTIONS IN A TERTIARY CARE HOSPITAL

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Objectives: To describe the epidemiology, risk factors, focus of infection and outcomes of candidaemia cases registered in a tertiary hospital.

Material and method: We performed a prospective analysis of all episodes of candidaemia between June 2011 and April 2012. We recorded clinical and epidemiological data (such as age, sex, underlying diseases that could predispose to infection, risk factors for candidaemia and focus of infection) as well as antifungal treatment and microbiological data. Patients were followed-up during admission to assess outcome of infection.

Results: During the study period we registered 31 episodes of candidaemia: 25 (80.6%) nosocomial infections (Oncology ward 7, Internal Medicine 4, Gastroenterology 2, Haematology 2, Intensive Care Unit [ICU] 2, and Surgery department 8), 5 (16.1%) health-care related and 1 (3.2%) community-acquired. Eighteen patients were male (58.1%) with a mean age (standard deviation) of 71.3 (13.1) years. Patients had multiple underlying diseases with a mean Charlson index of 4.9 (2.7). Most common comorbidities were solid tumors or haematologic malignancies (16 and 4 cases, respectively), heart diseases (7 patients with ischemic disease and 4 valvular disease), digestive diseases (11), diabetes mellitus (8), cognitive impairment or stroke (5), liver cirrhosis (2) and chronic kidney disease (2). Candida species isolated were: C. albicans (13; 41.9%), C. parapsilosis (9; 29.0%), C. tropicalis (5; 16.1%), C. glabrata (2; 6.5%), C. krusei (1; 3.2%), Candida spp. (1; 3.2%). The more prevalent risk factors were: prior antibiotic use (25; 80.6%), prior surgery (11; 35.5%), invasive procedures (23; 74.3%), prior ICU admission (2; 6.5%), urinary catheter (16; 51.5%), chemotherapy (9; 29.0%), transfusions (15; 48.4%), granulopenia (5; 16.1%), central venous catheter (17; 54.8%, of peripheral insertion in 7 cases), parenteral nutrition (20; 64.5%), corticoid treatment (3; 9.7%). The focus of infection was unknown in 12 cases (38.7%), abdominal in 12 (38.7%), catheter related in 6 (19.4%) and urinary in 1 (3.2%). Positive culture of the focus was identified in 8 cases (42.1%). Regarding outcomes, 5 patients required ICU admission and overall 30 day mortality rate was 31% (12 patients) with a median of 5 days between the documented infection and death.

Discussion: The typical patient with candidaemia in our setting is an elderly patient with multiple comorbidities and a central venous catheter, who has been receiving broad spectrum antibiotic therapy and has undergone surgery or other invasive procedures. The coexistence of multiple underlying diseases and risk factors usually makes very difficult the identification of the source of infection. Actually, it remained unknown in an important number of cases. As previously reported by other authors, we found that the most frequent focus of infection is abdominal. Regarding Candida species isolated, our results confirmed the trend showing an increase of non-albicans Candida species. Of special interest, C. parapsilosis represents the leading non-albicans species and its prevalence is higher when compared with other reports. Mortality rate in our setting is high and is similar to that showed in other series.

Conclusions: Candida species are important pathogens in hospitalized patients and are associated with significant mortality in our setting. The identification of risk factors has a key role for diagnosis and early treatment of candidaemia.

A-119
CLINICAL, ELECTROCARDIOGRAPHIC AND ECHOCARDIOGRAPHIC ABNORMALITIES IN LATIN AMERICAN IMMIGRANTS WITH NEWLY DIAGNOSED CHAGAS DISEASE IN SPAIN

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Objectives: Chagas disease is a zoonosis caused by the parasite Trypanosoma cruzi, a flagellated protozoa mainly transmitted to humans by the faeces of blood-sucking triatomine bugs (Triatoma infestans and others). The main objective of our study was to determine the presence of clinical, electrocardiografic (ECG) and echocardiographic abnormalities in a population of Latin American immigrants infected with Trypanosoma cruzi at the moment of diagnosis.

Material and method: Between 2008- 2011, we studied all consecutive adult patients newly diagnosed with Chagas infection at the Tropical Medicine Unit of Hospital Universitario Central de Asturias, in Spain. Exclusion criteria for the study were: (i) previously documented diagnosis of Chagas infection or antichagasic treatment, (ii) age less than 15 years, (iii) presence of hypertension, diabetes, coronary artery disease or other concurrent diseases associated with cardiomyopathy and, (iv) pregnancy. Individuals were considered as Chagas cases when two commercialised enzyme-linked immuno sorbent assay (ELISA)-based serological tests against crude and recombinant T. cruzi antigens were positive. In all cases we performed a polimerase chain reaction por T. cruzi. All newly-diagnosed Chagas patients underwent a clinical evaluation, including full medical history, physical examination, ECG with 30 seconds DII strip and a two-dimensional echocardiography. Patients were classified following the Brazilian Consensus Classification.

Results: We studied 22 adult patients (86% female, average age: 36 years old) with newly diagnosed Chagas infection positive for Chagas disease antibodies, which were confirmed in all cases. PCR was also positive in all cases. The countries of origin were: Bolivia (79%), Paraguay (11%), Brazil and Argentina (5% each). The average time of residence in Spain was 1335 days. Only one patient showed ECG and echocardiographic alterations (4.5%). ECG findings were ventricular extrasystoles (bigeminy and echocardiogram showed septal hypokinesia with barely normal systolic function). According to the Brazilian Consensus, this patient was on Stage B1, and the rest did not show cardiopathy signs.

Discussion: Chagas disease remains a neglected tropical disease and is as such recognised by World Health Organization. Following Latin American migration, Chagas disease has inevitably appeared in non-endemic countries in Europe and elsewhere. Acute Chagas disease is followed by a long asymptomatic period of latency (or chronic disease) characterised by the presence of antibodies against Trypanosoma cruzi. In this stage, clinical examination of the chest, oesophagus and colon may be normal; the 12-lead electrocardiogram (ECG) can show no irregularities or minor alterations.

Conclusions: ECG and echocardiographic alterations coherent with Chagas cardiomyopathy were found in a few proportion of newly diagnosed Latin American immigrants infected with T. cruzi. However, in the mid-term, Chagas disease might become an important cause of chronic cadiomyopathy in our attendance area. It should be considered in every Latin American patient with unexplained ECG abnormalities, cardiac symptoms or acute cardiovascular events. Both tests (serological test and polimerase chain reaction) should be routinely carried out at the moment of diagnosis.

A-120
INFECTION DUE TO STRONGYLOIDES STERCORALIS: COMPARATION BETWEEN HIV AND NON-HIV POSITIVE PATIENTS

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Objectives: Strongyloides stercoralis is a nematode parasite, which is endemic in tropical and subtropical regions. Infection usually remains asymptomatic, but in immunocompromised hosts severe and life-threatening manifestations such as hyperinfection syndrome and disseminated disease may occur. The aim of this work is to compare the characteristics of this infection for HIV and non-HIV infected patients.

Material and method: During the years 2008-2011 we conducted a prospective screening program of chronic strongyloidiasis in all immigrants patients attending in Tropical Medicine Unit of Hospital Central de Asturias. Combined examination of three concentrated stool samples, culture in blood agar and ELISA for serum anti–S. stercoralis antibodies was used as screening. We considered that infection existed if the microscopic visualization of larvae in stool sample and/or the ELISA was positive. In positive patients was discarded the presence of other nematodes or filarias. We performed an ELISA for serum anti-HIV antibodies in all patients. In positive patients we confirmed the infection by Western-Blot. Routine tests for determination of eosinophilia, CD4+ cell counts, and HIV load were performed simultaneously to serological studies. All positive patients were treated with ivermectin. All data was entered into a database and analyzed using SPSS 18.0 software package. Quantitative variables were analyzed with the Student t test or the Mann-Whitney test when appropriate. Qualitative variables were analyzed with the chi square test, with the Yates correction or Fischer's exact test (2-tailed) when necessary. All p values were 2-sided and values of 0.05 or less were considered statistically significant.

Results: Strongyloidiasis was diagnosed in 94 patients (34 men and 60 women). HIV infection was diagnosed in 13 patients (13.8%), with a median CD4 T cell count of 388 cells/mm^3.and median viral load of 275,163 RNA viral /ml. The average age was of 33 years for both groups. The mean time of permanence in Spain was 958 [892] days in HIV negative patients and 1164 [673] in HIV positive. There were not significant differences in sex, age, or time of permanence in Spain between both groups. The most frequents countries of origin were Equatorial Guinea (37%), Ecuador (16%), Spain (10%), Senegal (8.5%), Nigeria (6.5%), Ethiopia (5%) and others (17%). HIV patients were from Equatorial Guinea (8 vs 27 p = 0.05), 4 from Paraguay (4 vs 2 p = 0.02) and Colombia (1 vs 0, not significance). The most frequents symptoms in HIV negative patients were abdominal pain (28%), skin diseases (7.5%), diarrhea (8%) and the rest were asymptomatic. In HIV patients the most frequent symptoms were abdominal pain (15%) and the rest were asymptomatic (75% p = 0.0002 OR 7.92 [1.78-40.22]). Seventy-five non HIV patients had eosinophilia in blood (mean 1,263 [2,145] cells/mm^3) and twelve HIV patients (mean 722 [549] cells/mm3) without significant differences All patients showed positive serological test and in one patient the microscopic visualization was positive. All patients were treated with ivermectin. None patients developed hyperinfection syndrome. For all patients the serology became negative six months after the treatment. All patients survived.

Conclusions: The presence of infection for S. stercolaris is frequent in HIV positive patients although without symptoms. The infection is most frequent in sub-Saharan immigrants. To prevent potentially fatal hyperinfection syndrome, it is necessary realized screening with several stool examinations and serologic testing in this group of patients, and in infected ones instituted the treatment.

A-121
PSOAS ABSCESS: A HISTORICAL SERIES REVIEW

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Objectives: Describe the clinical-epidemiological features, diagnosis methods, microbiology, treatment received and the evolution of a number of patients diagnosed with psoas abscesses.

Material and method: Patients diagnosed with psoas abscess at the "Hospital 12 de Octubre" between April 2008 and March 2012. Review of medical records, incorporation of the information obtained into a previously designed database, descriptive statistical analysis of the variables under study and comparison of our results with those obtained in other series of literature.

Results: In the period under study, 11 patients were diagnosed with psoas abscess. All of them were Caucasian, 82% were male and the average age at diagnosis was 66 years old. 54% of the diagnosed abscesses were the result of the extension of the infection from an adjacent source (usually gastrointestinal), 10% due to hematogenous spread and in 36% of the cases their pathogenesis could not be determined. In four cases the abscesses were bilateral; the unilateral ones developed most frequently on the right side. The most frequent symptoms were pain in the lumbo-sacro ipsilateral region (100%), fever (54%) and functional impotence (54%). Three of the 11 patients (27%) were associated to lumbar spondilodiscitis. All patients underwent at least one abdominal CT scan as a diagnostic test and abdominal MRI was necessary in three cases. The micro-organism responsible for the entire primary psoas abscess was S. aureus, while mixed aerobic and anaerobic flora was detected in samples of secondary abscesses. None of the cases was due to Mycobacterium. Most of the patients received combined treatment: seven of them, antibiotic and drainage by CT-guided puncture and three of them, antibiotic and drainage through open surgery; only a patient received, exclusively, antibiotic therapy. Out of the 27 patients, at least one suffered relapse of the abscess. One of the 11 patients had a fatal evolution.

Discussion: The psoas abscess (or the iliopsoas) is a rare process, although its incidence is rising in recent years due to aging of the population, the increase in immune compromised people and the increased use of CT and RM as diagnosis. Literature published so far is scarce, highlighting a number of 124 cases recently published by Navarro Lopez et al. The average age of presentation in our series is discreetly higher according to previous studies (66 years vs the average of 58), with a ratio of 85% being males, similar to the expected. Ten percent of abscesses were primary, and the most frequent cause was of secondary origin, as described. However, the most common secondary origin in our patients was gastrointestinal, unlike previously published (bone origin). The proportion of bilateral abscesses and spondylodiscitis was the expected one (up to a third of the cases approximately). The proportion of patients with pain and fever was also the expected (up to one third of the cases approximately). The proportion of patients with pain and fever was also the expected one. From the microbiological point of view it is confirmed the presence of Staphylococcus aureus as the most frequent microorganism in primary abscesses and of poly-microbial infections in the secondary, although the absence of isolations of E. coli, previously described as the most frequent agent at the primary gastrointestinal and urological sources is

appreciated. We have not found any case of tuberculosis, compared to 15-20 per cent of what was previously published in our country, which could be due to the absence of HIV patients or immune-suppressed in our series, factors previously associated with the germ. Also we cannot ignore that there is a selection bias in the encoding process. It is worthy to note that all described cases of recurrence had been treated with antibiotic therapy and percutaneous drainage versus none treated surgically. Even though our sampling is small, it supports what has been suggested in previous publications where it seems that there is a high rate of recurrence in patients not treated surgically. It has been described that age is a factor associated with mortality. Our only deceased patient in our series was 74 years old (older than the average), although his death cannot be attributed directly to the psoas abscess.

Conclusions: Incidence of the psoas abscess is rare although the frequency of its diagnosis has increased thanks to the use of the CT. Secondary abscesses are more frequent, usually by enteric bacteria, mixed infections and anaerobics. At present, the most responsible organism for the primary psoas abscesses is S. aureus. However, we must keep in mind that Mycobacterium tuberculosis is the causative agent in those patients from endemic areas, especially if associated with spondylodiscitis. The treatment of choice is the antibiotic therapy together with surgical or percutaneous drainage, although it is possible that this may result in a higher rate of recurrence.

A-122
GENERAL CHARACTERISTICS OF ESOPHAGEAL CANDIDIASIS UNRELATED TO HIV INFECTION

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Objectives: Esophageal candidiasis is an infrequent illness in subjects without underlying immune-depression, while, it constitutes one of the more frequent opportunistic infections in HIV infected subjects and a sentinel disease that should alert us in patients not known to be infected with HIV. The objective of our study consists in describing the clinical and epidemiological characteristics of esophageal candidiasis in subjects not known to be infected with HIV.

Material and method: It is an observational and retrospective study carried out in a 285 bed hospital in a specific area of 168.401 inhabitants. The cases of esophageal candidiasis diagnosed between the years 2000-2011 via endoscopy and later confirmed anatomopathologically have been reviewed. The search for cases was realized via the Pathological Anatomy register, Endoscopy reports, Diagnosis in discharged hospital patients (CMBD). The information about serology against HIV was obtained from the register of the microbiology service.

Results: Initially 31 episodes were identified, of which 11 were excluded through the lack of serology against HIV, leaving a final sample of 20 patients, 14 male and 6 female. All 20 had suspected esophageal candidiasis via upper digestive endoscopy and later confirmed in the anatomopathological study. None of the subjects had previously suffered episodes of candidiasis, and the leukocyte recount was normal at the time of the diagnosis. The average age at the moment of diagnosis was 62 years (DE 14.5). The majority showed digestive symptoms when they were evaluated in the surgery, Dysphagia being the most common symptom, present in a total of seven patients (35%), four had heartburn (20%), two epigastralgia (10%), nausea and vomiting in one (5%). Four patients showed no symptoms whatsoever to suggest pathological esophageal at the time of diagnosis, carrying out the endoscopic assessment for other motives. The presence of oral thrush was not documented in any of the cases. With respect to the risk factor of developing esophageal candidiasis, the review of the clinical history of the diagnosed subjects showed that four of them were smokers (20%), three (15%) were habitual smokers and consumers of alcohol (daily consumption of more than 60 g of ethanol), and one patient (5%) consumer of alcohol exclusively. Ten of the cases that were studied didn't show any condition that, a priori, could be indicative of immune-depression. Four patients had mellitus diabetes, five had chronic renal disease, and three had a history of known neoplastic disease and in five the previous consumption of steroids for diverse pathologies. Eight patients were receiving proton ray treatment with inhibitors. No patients were, at the time of diagnosis, undergoing chemotherapy, radiotherapy or antimicrobial treatments. The neutrophil recount was normal in all the cases. All the cases were treated with fluconazol with disappearance of the symptoms, with no detection of posterior occurrence.

Conclusions: The existence of diverse illnesses and risk factors such as mellitus diabetes, underlying neoplastics, chronic renal disease or alcoholism, in which the appearance of certain digestive symptoms (disphagia, heartburn, etc.) should make us suspect the existence of esophageal candidiasis. Contrary to what happens in subjects infected with HIV, oral candidiasis is not associated or recurrent. In only 65% of the cases was the misleading of the HIV infection realized, resulting in esophageal candidiasis being an opportunistic event defining a case of aids.

A-123
PREVALENCE OF PERSISTENT PARASITIC INFECTIONS IN FOREIGN-BORN, HIV-INFECTED PATIENTS IN THE NORTH OF SPAIN

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Objectives: Foreign-born, HIV-infected patients are at risk for sub-clinical parasitic infections acquired in their countries of origin. The long-term consequences of co-infections can be severe, yet few data exist on parasitic infection prevalence in this population. The Tropical Medicine Unit of Hospital Universitario Central de Asturias performed a systematic screening program of imported diseases in HIV positive immigrant population. This study presents the results of the first five years of this screening program.

Material and method: A prospective, descriptive study was designed to include all the immigrants patients diagnosed with HIV infection attending in Hospital Central de Asturias, Spain, from March 2006 to March 2011. We included demographic variables as age, sex, country of origin, months from arrival in Spain to first consultation, CD4+ cells count and viral load at time of diagnosed. Screening comprised blood count, biochemistry, basic urinalysis, hepatitis B virus (HBV), HCV, strongyloidiasis and schistosomiasis serologic analysis, stool parasites, blood test for filarias, PCR for malaria and Chagas disease serologic analysis (immunofluorescent antibody test, ELISA) and PCR in people from Latin America. Qualitative variables were compared using the χ^2 test, and the Fisher exact test when necessary. For quantitative variables, the Student t test for non paired variables or the Mann-Whitney U test were used. Significance was designated at $p < 0.05$. All tests were performed with the SPSS 15 software for Windows (SPSS Inc., Chicago, IL, USA).

Results: A total of 57 patients were analyzed: (51% female, mean age 29 years). 70% are immigrant subsaharan and the rest Latin American. The most frequent countries of origin were Equatorial Guinea (43%), Nigeria (10%), Senegal (9%), Colombia (9%), Paraguay and Morocco (4% each) and others (21%). Mean time in Spain: 1,061 days (3-9,876). Mean Cd4+ cells were 209 cells/mm^3. The average viral load was 47.000 RNA viral copies. Intestinal parasites was diagnosed in 27 of patients: T. trichuria (22%), strongyloidiasis (11%), amebiasis (7%), schistosomiasis (5%), G. intestinalis (4%). All infections by T. trichuria was diagnosed in Equatorial Guinea patients. Other parasite diseases were: filariasis by M. perstans (9%); malaria (9%, all from Equatorial Guinea) Chagas disease (4%), The 7% of patients had two or more parasites, more frequent in Sub-Saharan patients (p =,056). A total of 8 patients (14%) had chronic hepatitis B virus and 2 patients had HCV hepatitis. 19% of patients had latent syphilis significantly more frequent in Sub-Saharan patients (9 vs 2 p = 0.04). In 12 patients the screening did not show any disease.

Conclusions: Given the high prevalence of certain parasites infections and the potential lack of suggestive symptoms and signs, selected screening for strongyloidiasis and schistosomiasis or use of empiric antiparasitic therapy may be appropriate among foreign-born, HIV-infected patients. Identifying and treating helminth infections could prevent long term complications.

A-124
CAUSES OF ADMISSION AND DEATH IN HIV PATIENTS IN 2010 IN SANTA MARÍA DEL ROSELL HOSPITAL IN CARTAGENA

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Objectives: 1. To know the general characteristics of HIV population that requires hospital admission. 2. To describe admission and death causes in patients diagnosed of HIV. 3. To establish if hepatopathy is the main cause of death in our reference population.

Material and method: Descriptive and prospective analysis of all the HIV patient's admissions along 2010 (February 2010 to February 2011) in Cartagena, II Health Area of Murcia. Not only the Internal Medicine admissions were collected, but also other medical specialties admissions. Those excluded were: programmed admissions and those for non complicated obstetric cause (birth). Patient's data that were diagnosed for the first time of HIV on admission were included. Collected variables were: demographic characteristics, years from diagnosis, following of the disease, clinical and immunological condition, presence of hepatitis B virus and C virus co-infection, CD4 level, viral load, treatment, cause and days of admission and cause of death. All data were got from medical files during admissions. The statistical analysis was provided by computer programme SPPS v.18.

Results: 122 admissions on 82 patients were collected, that left an average of 1.5 admissions per year. 29% were readmissions. The median of hospital staying was 5 days. 70.4% were males and the mean age was 45. The predominant rout of transmission was intravenous drug use. Social problems were very frequent; as a matter of fact the 40% of our population were in this situation. Up to 69.7% were co infected with the hepatitis C virus. The CD4 median was 370/µL and viral load median 50 copies. 51% were on HAART. The three more frequent causes of admission were: non opportunistic infections (n: 29, 24.6%), those related to drug use and psicopathies (n: 22, 16.1%), and gastrointestinal (non-hepatic) alterations (n: 15, 12.7%). Mortality rate was 7.3% (n: 6). All the patients that died had less than 250 CD4 and the difference with those that survived was statistically significant (p: 0.01). Death causes were: 50% by hepatopathy decompensation and 50% by AIDS-defining illnesses (1 opportunistic infection, 1 AIDS wasting syndrome, and 1 AIDS-related cancer).

Discussion: With the use of highly active antiretroviral therapy (HAART) we have been witness to the change of admission and death causes in patients affected with HIV infection. Along the last decade it's been described a decrease of the diagnosis of clinical conditions that are considered AIDS criteria, and a rise of pathology related to the decompensation of hepatopathy due to hepatitis C virus. This one is nowadays the main death cause in population infected with HIV.

Conclusions: Admitted patients were frequently immuno-suppressed with uncontrolled viremia and remained without treatment. Non-opportunistic infections were the most frequent cause of admission, followed by drug-use and psychiatric related problems. These admissions reflect the high rate of social problems that these patients present. Hepatopathy decompensation is confirmed as the most frequent cause of death, with no detriment of opportunistic infections between those immunodepressed.

A-125
CLINICAL RELEVANCE OF MYCOBACTERIUM AVIUM -INTRACELLULARE ISOLATES OVER A PERIOD OF TEN YEARS

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Objectives: The Mycobacterium avium-intracellulare complex (MAC) includes M. avium y M. intracellulare (MAI), slowly growing organisms genetically similar and generally not differentiated in the clinical microbiology laboratory. MAC can cause two mayor pulmonary diseases especially in older people with an underlying lung disease, disseminated disease in severely immunocompromised patients (those suffering from: AIDS, hematologic malignancy or with a history of immunosupressive therapy), and superficial lymphadentys especially in children. The aim of the present study is to analyze the clinical significance of MAI isolates over a period of ten years. Describe the number of isolates, the incidence of "colonization"/nfection, location of the samples, in addition to the clinical and epidemiological characteristics of those patients studied.

Material and method: Retrospective study of MAI isolates obtained from the Microbiology Service of San Agustin Hospital, from January 2001 to December 2010, by reviewing medical records. The identification was made using techniques for detecting nucleic acids Accuprobe Mycobacterium Avium Gen Probe Complex Culture Identification Test.

Results: We obtained 42 isolates of MAI (out of 485 NTM isolates (8.66%) belonging to 29 patients. The average age of patients was 64 ± 20 (median 71), 62% were male. In 28% of patients (n = 8) MAI was isolated in several episodes during the period of study, 86% of the isolates were of respiratory origin. With regards to the underlying disease and predisposing factors, (41%) of the patients were diagnosed with COPD, 25% had bronchiectasis, and 27% had a history of malignancy, 7% of patients had cystic fibrosis and a 14% had a previous history of tuberculosis. 14% of patients were HIV positive, of which 50% had disseminated infection. The incidence of infection was 31% (n = 9), 67% were immunocompromised patiens (44% VIH positive, 33% has history of malignancy) and 67% has MAI repeated isolates. Treatment was administered in 78% of the

infected patients, while 6 were cured, 1 case of relapse and 2 died.

Discussion: Sings and symptoms of NTM disease are variable and nonspecific. However, as these organisms are commonly found in nature, contamination of culture material or transient infection does occur, thus a single positive sputum culture, especially in asymptomatic patients with respiratory disease, was often not be treated. In this study 83% of the patients had radiological abnormalities (20% nodule-interstitial, 34% bronchiectasis).None of the patients which was decided not to treat immediately presented suggestive infection or radiological after the follow-up clinic.

Conclusions: MAI isolates are becoming increasingly frequent, and in our study most of them corresponded to "colonizations". However, it is necessary to evaluate their clinical significance as pathogens, when the isolation is made in HIV patients, lymphadenopathy in pediatric patients, immunosuppressed patients for malignancies or chemotherapy, and when repeated isolates are obtained from one or more locations.

A-126
PREVALENCE OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS IN THREE INTERNAL MEDICINE DEPARTMENTS

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Objectives: Methicillin-resistant Staphylococcus aureus (MRSA) is an important nosocomial pathogen, resistant to many antibiotic classes. Since the presence of this germ determines a worse prognosis in several infections, such as infective endocarditis our aim was to study the prevalence of MRSA in three Internal Medicine Departments of our hospital.

Material and method: Microbiological results from January 2010 to April 2012 were retrospectively reviewed in order to analyze S. aureus isolates from different sites. Basic demographic data and antibiogram pattern were recorded.

Results: A total number of 237 S. aureus were isolated and 72 of those were MRSA (30.4%, table). According to the site of isolation, 28 of 54 positive sputum cultures were MRSA (51.9%), 17 of 64 blood cultures (31.5%), 26 of 51 skin and soft tissue cultures (51.0%), and only one of 17 positive urine cultures (5.9%).

Discussion: In our study, we report that 37.5% of cultures were positive for MRSA and prevalence rate was around 50% in sputum and skin and soft tissue cultures. Other authors in Europe have shown different prevalence rates of MRSA, ranging from 54% in Portugal or 58% in Italy to 2% in the Netherlands. According to our results, MRSA isolates are increasing in our hospital and first line treatments for specific infections may need to be revised.

Conclusions: Our results show an overall prevalence of MRSA of 37.5% in 237 clinical specimens. Similar results were reported by other authors and highlight the risk of inadequate empirical antibiotic therapy in S. aureus infections.

A-127
DIFFERENCES IN MORTALITY CAUSES AMONG MEN AND WOMEN IN THE HIGHLY ACTIVE ANTIRETROVIRAL THERAPY (HAART) ERA PROSPECTIVE STUDY OF THE LAST 8 YEARS (2004-2011)

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Objectives: Describe and compare mortality causes, clinical and demographic data among men (M) and women (W) of our HIV infected cohort in the HAART era.

Material and method: Prospective, observational study of our HIV infected cohort (n = 1399) from January 2004 to January 2011. Demographic features, HIV risk behaviours, mortality causes, immuno-virological and clinical situation, HAART adherence and follow up data were analyzed in each gender.

Results: (M and W) Overall deaths: 205 (78% vs 22%). Mean age (45 ± 8.5 vs 44 ± 9.5). Risk behaviours: IDU (66.9% vs 73.3%), sexual transmission (18.8% (MSM 50%) vs 17.8%), other/unknown (14.4% vs 8.9%). Main causes of deaths; AIDS defining illnesses (25.6% vs 8.9%), AIDS non defining illnesses (74.4% vs 91.1%) (p 0.015). Hepatic disease (23.1% vs 26.7%), non AIDS malignancies (13.8% vs 13.3%), non AIDS infections (10% vs 15.6%), unexpected/cardiovascular deaths (17.8% vs 28.9%), other causes (8.8% vs 6.7%). Patients in treatment with methadone (24.4% vs 42.2%) (p 0.025). Patients in HAART (> 1 month) (85.6% vs 95.6%), > 1 year of HAART (71.9% vs 88.6%) (p 0.025). LastVL < 50 copies/ml (56.2% vs 64.4%). Last Median CD4 account (224 vs 276 cell/ml) and last VL (49 copies/ml in both gender). Median CD4 NADIR(110 vs 132 cell/ml) (p 0.076).-Outpatient follow-up and HAART adherence: new diagnoses (11.9% vs 6.7%), bad follow-up/adherence (43% vs 37.8%), good follow-up/adherence (44.7% vs 55.6%) (p 0.35).

Conclusions: We notice significant differences among: Gender and cause of death (p 0.015). Men death of AIDS defining illnesses (25.6% vs 8.9%), women death of non AIDS defining illnesses (74.4% vs 91.1%), highlighting unexpected/cardiovascular deaths (17.8% vs 28.9%). Patients in treatment with methadone (24.4% vs 42.2%) (p 0.025). Percentage of patients in HAART (> 1 year, 85.6% vs 95.4%) (p 0.025).-CD4 NADIR was 110 cell/ml in men and 132 cell/ml in women (p 0.076)-We do not notice significant differences in median age (p 0.35), risk behaviours (p 0.59), percentage ofpatients with undetectable VL (p 0.39), follow-up/ART adherence (p 0.358), median last CD4 (p 0.258) and VL (p 0.945).

Table (A-126). MRSA frequency according to the site of isolation

Clinical specimen	Total number of S. aureus isolates	S. aureus	MRSA (n,%)	Percentage of the total
Sputum	54	26	28	12.0%
Blood	64	47	17	26.5%
Pressure or skin ulcer	51	25	26	51.0%
Urine	17	16	1	5.9%
Other sites	51	34	17	33.3%
Total	237	148	89	37.5%

A-128
MONOTHERAPY AMONG HIV-INFECTED PATIENTS: EFFECTIVE, SAFE AND CHEAP

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Objectives: To analyze the short-term effectiveness of reducing treatment to a single agent with boosted Protease Inhibitor (PIs) by maintaining therapy after virologic suppression with a highly active antiretroviral therapy (three drugs) regimen for HIV-infected patients at our Hospital.

Material and method: Prospective study of patients who started monotherapy with lopinavir/ritonavir (LPV/r) or darunavir/ritonavir (DRV/r) after achieving plasma HIV viral load (VL) suppression < 50 copies/mL for at least 6 months with three active drugs. Variables included: age, gender of the patients, monotherapy starting date, serum lipids levels and renal function at baseline and then one, four and twelve months after the simplification. Rates of maintenance of HIV VL < 50 copies/mL and change in CD4 T-cell counts were calculated at these times too. The history of treatment failure to IPs and adherence level measurement 6 months before the beginning of the monotherapy regimen was also evaluated.

Results: Twenty-six patients were enrolled (18 male, 8 female), median age: 46. Twenty-two patients received DRV/r 800/100 mg once daily and 4 patients received LPV/r 400/100 mg twice daily. None had documented or suspected drug resistance. Six patients (1 of LPV/r arm, 5 of DRV/r arm) did not keep suppressing viral load < 50 copies/mL the 6 months before the monotherapy. Twenty subjects (2 of LPV/r arm, 18 of DRV/R arm) showed excellent adherence (> 90%) the previous 6 months to the simplification regimen. All the patients complete the first month of the monotherapy but only 15 (4 of LPV/r arm, 11 of DRV/r arm) achieved 4 months. Four patients (1 of LPV/r arm, 3 of DRV/r arm) concluded one year with the boosted IPs single treatment. At month 1, all the subjects of the LPV/r group and 14 of 15 patients (93%) of the DRV/r group whose laboratory parameters were monitorized had VL < 50 copies/mL. The four patients of LPV/r arm and the 7 of 10 DRV/r arm (one no monitorized) maintained viral suppression at the fourth month with monotherapy. Three patients (1 of LPV/r, 3 of DRV/r) completed twelve months with viral load below limits of assay detection. 5 virolgic blip were reported in 5 different subjects of DRV/r arm throughout the treatment (first month: 1, fourth month: 3, twelve month: 1). None was related to LPV/r group. There was no decline in CD4 cells nor a statistically significant rise in both strategies. No virological failure was documented, so there was no need to restart nucleosides. An initial upward trend in total cholesterol and triglycerides was observed in both arms, higher in the LPV/r (p = ns). Renal function was maintained stable in all patients (p = ns). No serious adverse events were reported.

Discussion: Our population sample and follow up are smaller than other studies published, nevertheless the short-term outcomes obtained showed a similar effectiveness. Although there were 5 blips in the follow-up, there was no need to restart nucleoside. No virologic failure was detected (VL > 1,000 copies) so these strategies seem to be safe and cheap.

Conclusions: Our short-term treatment outcomes of monotherapy indicate a similar efficacy and safety at a lower cost than the triple therapy; however, we need a long-term monitoring in a high proportion of patients to assess that monotherapy is as safe and efficacious as HAART.

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CHARACTERISTICS OF INFECTIVE ENDOCARDITIS IN A TERTIARY HOSPITAL

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Objectives: Infective endocarditis (IE) is a serious condition. Observational studies showed that the profile of this pathology significantly changed over the past decades. For this reason, we review the characteristics of diagnosed cases of IE in our hospital.

Material and method: A prospective population-based observational study was conducted in Donostia Hospital of all the diagnoses IE cases in the period March 2008 to April 2012. We show epidemiologic, etiologic and management data.

Results: In the period March 2008 to April 2012, 145 cases of IE diagnoses according to modified Duke criteria. A total of 99 cases (68.27%) were in men and 46 (31.73%) in women. The patients median age was 70 years (range, 32-92 years). Patients over 80 years: 24 (16.55%). Transthoracic echocardiography was performed for all patients. The distribution of the locations of IE was: 88 native valves (aortic: 35; mitral: 44; tricuspid: 8; pulmonary: 1); 44 prosthetic valves (aortic: 30; mitral: 13; tricuspid: 1); 12 intracardiac stimulation devices; the location of IE remained uncertain in 12 patients. Patients with involvement of two valves: 12; a valve and a device: 3; patients with involvement of all the valvular system: 1. Causative microorganisms were identified by blood cultures, valve culture, serology or by PCR of valve material. Eventually, 7 patients (4.82%) had no etiologic agent identified. Causative microorganisms were: 17 coagulase negative Staphylococci; 34 MSSA; 2 MRSA; 1 S. agalactiae; 26 S. viridans; 7 S. epidermidis; 2 S. neumoniae; 17 S. bovis; 17 group betahemolytic streptococci; 15 Enterococci; 3 HACEK; 2 Gemella; 2 Listeria; 2 C. parapsilosis; 1 T. whipelli; 1 Brucella; 1 Yersinia; 1 E.coli; 1 B. fragilis; 1 C. bytiricum; 1 P. acnes. Cardiac surgery was perform in 72 patients (49.65%), 57 of whom were men (79.1%). Median Euroescore was 24.22%. The mortality rate was 19.31% (28 patients); patients dead in Intensive Care Unit: 16 (11 of whom was performed cardiac surgery); in acute unit: 9; long-stay unit: 2; Hospital at Home: 1. The antibiotics administered were considered correct in all cases according to the group management support IE hospital. 62 patients (42.75%) received some treatment like outpatients.

Conclusions: IE is a prevalent disease that increasingly affects old people. It seems that there is a change in the etiology: Staphylococci being the most common etiologic agents. There are a significant number of outpatients treated at home. Despite the advances, the mortality of this entity continues to be important (in our series, intermediate described in the literature).

A-131
RELATIONSHIP BETWEEN CHIMERISM AND INFECTIOUS COMPLICATIONS IN LIVER TRANSPLANT: A PRELIMINARY STUDY

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Objectives: To study if there is any kind of relationship between the chimerism and infectious complications in patients with liver transplants.

Material and method: 29 adult patients who received a hepatic transplant in our hospital between June 2001 and January 2005

have been studied. A total of 121 blood samples were obtained at different times following the transplant (median interval 6 months). The degree of chimerism was determined through a real time quantitative PCR technique. The results were measured in a percentage of the donor's DNA within the sample. Retrospectively, the cases of patients who suffered from severe infections and needed to be hospitalized within the first twelve months following the transplant were registered. We compared chimerism in function of different variables based on Mann-Whitney U test.

Results: Out of the 29 cases: 69% men, 34% hepatitis C positive and 50 years of age´s average. Every patient had at least one blood sample that presented chimerism (3% median, ranging from 0.01% to 98%). 28 out of 29 patients presented an infection (21 bacterial, 17 from Candida spp, 1 from filamentous fungus, 13 from Cytomegalovirus). The average of chimerism detected was 9%. The average of chimerism was significantly lower in those patients who developed infection by CMV (4.1% vs 12.9%) (p = 0.01). Nevertheless, the average of chimerism was greater in subjects with bacterial infections (10.0% vs 6.2%) even though the difference was not statistically relevant (p = 0.3). Also, the average of chimerism was higher in those subjects who developed some fungal infection (11.5% vs 5.3%) (p = 0.08). The degree of chimerism was lower in the patients who died during the procedure (1.7% vs 10.1%) (p = 0.1). No differences in chimerism were observed in those patients who developed neoplasias or those with transplant rejection.

Discussion: Chimerism is the presence of donor leukocytes in peripheral blood of transplant recipients. The liver is the solid transplanted organ where this phenomenon has been reported more frequently. In the past, chimerism was relationated to some immunological aspects: the higher percentage of chimerism, the more immunotolerance and the longer graft´s survival. There are no studies about the relationship between chimerism and infectious complications. We observed that those patients who suffered from Cytomegalovirus infection used to have low level of chimerism. We did not obtain any result statistically significant about the relationship between chimerism and fungal or bacterial infections. It is not clear the clinical relevance of these results. This study has been limited by its reduced sample rate.

Conclusions: In this study, It seems to exist a tendency of having less chimerism in those patients who developed an infection from Cytomegalovirus but we were not capable of proving a unidirectional or significant relationship between the percentage of the donor´s leukocyte chimerism and the development of infections in carriers of the hepatic transplant. It would be necessary a study with a larger sample size in order to show if this relationship really exists or not.

A-132
LISTERIOSIS: ANALYSIS OF 27 CASES IN A GENERAL HOSPITAL

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Objectives: The aim of the study was to analyse the co-morbidity, clinical presentation and prognosis of listeriosis at our hospital during the last 15 years.

Material and method: From January 1998 to April 2012 we retrospectively recorded 27 cases of listeriosis. Diagnosis of listeriosis was made by means of isolation of Listeria monocytogenes from a normally sterile site (blood culture, cerebrospinal fluid, ascites fluid, biliar fluid, amniotic fluid or placenta) in a patient with a clinical compatible illness. A case was considered pregnancy-associated if it involved a pregnant women, a miscarriage, a stillbirth or a newborn < 1 month old. The mother and her newborn were counted as a single case. In all cases demographic information, disease presentation, antimicrobial treatment and outcome data were recorded.

Results: Nine (33%) were pregnancy-associated cases. Among the 18 patients with no pregnancy-association listeriosis 10 were male (55.6%) and 8 were female (44.4%). Mean age in no pregnancy cases was 64.4 years (± 18.7) and 33.3% were aged > 75 years. According to clinical presentation, thirteen cases (48.1%) were primary bacteremia, most of them (76.9%) without clinical focus nor septic metastasis. Only in 2 cases bacteremia was associated with brain abscess and one case with cholecystitis. Blood cultures were obtained in seven of the pregnancy-associated cases and were positive in 5 of them (71.4%). Four patients (14.8%) presented with meningitis, one of them with bacteremia. One cirrhotic patient developed a bacterascites. In the bacteremic group all patients (100%) had underlying diseases (neoplastic, hematologic, diabetes, digestive autoimmune diseases or immunosuppressive conditions). Three patients had diabetes as the only underlying disease, one patient had HIV infection. Seven cases (53.8%) were under immunosupressive (steroid, methotrexate) or cytostatic therapy. Patients with meningitis had no predisposing conditions. In pregnant women, infection was developed during the third trimester of pregnancy in 8 cases (88.8%). The remaining case occurred in the second trimester and resolved in miscarriage. Sixteen patients (59.3%) were first treated with ampicillin monotherapy or aminoglucoside combination. In one case was initially used cefepime, and the rest of them received amoxicillin, piperacillin/tazobactam, cotrimoxazole or vancomycin. Finally two cases did not receive antimicrobial therapy because of the seriousness of the underlying condition. The whole pregnancy-associated cases resolved satisfactory for pregnant women, and so for her newborns except for the case occurred in the second trimester. Five patients died, 18.5% of mortality rate. In one case death was not directly related to infection by Listeria. All patients who died had bacteremia and severe underlying disease.

Discussion: Bacteremia and menignitis are the most common manifestations of listeriosis, in our study accounted for 70% (17/27) of the cases. Pregnancy-associated cases represented 33% of the patients. Mean age of the patients has increased along the years, 33.3% of the patients recruited in our series were aged > 75 years. Clinical outcome was favourable in pregnant- associated cases with good response to amoxicillin or ampicillin. More than 70% of cases of listeriosis occur in persons with recognized underlying diseases. In our study, 61.1% of the cases in the non pregnancy-associated patients had underlying disease, most of them in the bacteremic group. Successful treatment can be achieved with amoxicillin and ampicillin; in our case ampicillin monotherapy or aminoglucoside combination was administered as a first option in 59.3% of the cases. Fatality rate of listeriosis reported in the literature ranges from 20% to 40% for the majority of underlying conditions, we report an 18.5%. In our study mortality rate is higher in bacteremic listeriosis. All patients who died had bacteremia and severe underlying disease.

Conclusions: Bacteremia and meningitis are the most common manifestations of listeriosis in non pregnancy-associates cases. Mortality rate is higher in patients with bacteremic listeriosis and severe underlying disease.

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MEDITERRANEAN SPOTTED FEVER: DIAGNOSIS AND PROGNOSIS IN A ENDEMIC COUNTRY

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Objectives: The rising number of rickettsial diseases is a public health concern in Portugal, where the most prevalent tick-borne disease is Mediterranean spotted fever (MSF). Although usually considered to have a benign evolution, it may be associated with high morbidity and mortality. Several studies have identified risk factors associated with a worse prognosis such as elder age, alcoholism, diabetes and glucose-6-phosphate dehydrogenase deficiency. High levels of clinical suspicion and the prompt initiation of treatment with tetracyclines are the keys to a favourable outcome. The authors discuss predisposing co-morbidities in MSF, its clinical and laboratorial presentation and the prognosis, in a country where MSF is endemic.

Material and method: The authors carried out a retrospective analysis of all admissions to 2 Medical Wards during a 5 year period (January 2007 to December 2011). All patients with a diagnosis of MSF were included and the characteristics evaluated were: age, sex, clinical presentation, medical history, laboratory tests, treatment and outcome.

Results: A total of 28 cases of MSF were diagnosed during this period. There was a higher prevalence of infection amongst males, and the average age was 52 years (17-79). Four cases had a history of alcoholism and 2 patients had a personal history of diabetes. Upon admission, 24 patients were febrile and 22 patients presented with a rash (maculo-papular in 20 of them); myalgia was present in 15 cases and headache in 9. Tache-noire was found in 11 of the patients. Laboratory tests revealed thrombocytopenia in 20 cases, hyponatremia in 21, acute renal failure in 7 cases and a rise in liver enzymes in 20 cases (mainly ALT). Serology for Rickettsia conorii was performed in 90% of the patients and was positive in 21.4% of these. All patients were treated with doxycycline and had a benign and uncomplicated evolution.

Discussion: Higher prevalence in male sex remains inconclusive as a real risk factor for MSF or a consequence of higher environmental exposure and, although elder age is associated with worse outcome, we didn't identify it as such in this sample. The authors observed higher prevalence of known risk factors for MSF like chronic alcoholism, diabetes and hypertension, but these weren't associated with a bad prognosis. Most patients presented with a febrile syndrome associated with maculopapular rash, and only 39% had a tache noire. We believe that in an endemic country these clinical features are clue to diagnosis and that tache noire may suggest it but surely doesn't exclude MSF when it's absent. Laboratory findings are relatively frequent but unspecific; when present, one should take in account dramatic alterations in their values, because these seem to predict unfavourable evolutions. Above all, uremia is associated with worse outcome, though multifactorial in the majority of patients, and should be tested frequently. To confirm diagnosis, serology with immunofluorescence was performed in 90% of the sample, and was only positive in 6 of them. According to this and other studies in MSF-endemic regions, we think serology must not delay initiation of proper therapy and that it isn't imperative to confirm diagnosis when typical clinical features are present and an appropriate answer to tetracyclines is observed.

Conclusions: MSF is still highly prevalent in Portugal, where it's considered endemic, even in urban areas, so high suspicion is advised if the epidemiological and personal history are suggestive of a tick-borne disease and typical clinical features are present. Diagnosing MSF may be easy, but predicting patient's prognosis is not and, most importantly, prompt initiation of proper antibiotherapy remains key to favourable outcome.

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DESCRIPTIVE STUDY OF OPPORTUNISTIC INFECTIONS IN HIV PATIENTS ADMITTED TO THE INTERNAL MEDICINE DURING THE YEARS 2010-2011

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Objectives: This is a tertiary hospital covering an area of 500,000 habitants, the population of 1,400 patients cohort VIH. It is estimated that the prevalence of people living with HIV/AIDS in Spain is 120-150000 and although the diagnosis and treatment is free and confidential, there is a high number of infected (about 30%) who know their status so that many develop severe immunosuppression and AIDS without receiving antiretroviral therapy. Our hospital covers a population of 500000 inhabitants and the cohort of HIV in our hospital is approximately 1400 patients. The aim of this study was to describe the frequency of opportunistic infections and determine which is the most frequent in HIV + patients at the Hospital Our Lady of Candelaria during the period January 2010-December 2011.

Material and method: Retrospective descriptive study of HIV patients admitted to Internal Medicine during the period January 2010 to December 2011. We reviewed the medical records of patients admitted to the Internal Medicine service during this period.

Results: 151 objectified revenues and 22 readmissions. Of the total 45 (29.80%) patients were admitted for an opportunistic infection. Of these 6 (13.33%) were female and 39 (86.66%) were male. The mean age was 40.70 years. In relation to the mechanisms of transmission: 40% former IDUs, 40% and 20% heterosexual sex 34%. HCV co infection was 18% of patients. The most common opportunistic infections, Pneumocystis jirovecii Pneumonia 24.4%, recurrent pneumonia 11.11%, wasting syndrome 8.8%, 8.8% lymph node TB, pulmonary tuberculosis 8.8%, 8.8% cerebral toxoplasmosis, pneumonia CMV 4.4%, 4.4%, cryptococcal meningitis, cerebral lymphoma, esophageal candidiasis 4.4% 4.4% 15.5% other causes during the period of the study had 4 patient died (8.8%), most of whom from pneumonia jirovecii pneumonia and decompensated liver disease. Were newly diagnosed patients (42.2%), being the most common admission diagnosis constitutional syndrome and HIV 2 º Pneumocystis jirovecii pneumonia. 20% of patients were found 2 or more concurrent infections the most common CMV.

Conclusions: We conclude that infections accounted respiratory opportunistic infection common in HIV + patients and that the most common infectious agent is Pneumocystis jirovecii.

A-135
A DESCRIPTIVE STUDY OF HIV PATIENTS ADMITTED TO INTERNAL MEDICINE IN 2011

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Objectives: It is estimated that the number of people living with HIV/AIDS in Spain is between 120,000 and 150,000. Although testing, diagnosis and treatment are free and confidential, there are a high number of infected individuals (about 30%) who are not aware of their HIV status, and so many develop severe

immunosuppression and AIDS without receiving antiretroviral therapy. In 2008 it was reported that 30% of new diagnoses had a CD4 count of less than 200. Our aim is to analyse what happens in our catchment area (the south of the island of Tenerife) and describe the clinical and epidemiological characteristics of the study population. Our hospital is a tertiary hospital covering an area with 500,000 inhabitants, with a HIV population in our cohort of 1,400 patients.

Material and method: Retrospective descriptive study of HIV patients admitted to Internal Medicine in 2011. The medical records of patients admitted to Internal Medicine in 2011 were reviewed for this purpose.

Results: 88 objectified admissions of 74 patients, 14 readmissions. 26.13% of patients were female and 73.86% were male. The mean age was 41.55 years. The mean period since HIV diagnosis was 11.22 years. The mechanisms of transmission were: 54.7% from IVDU EX; 33.84% and 9.43% respectively from homosexual and heterosexual transmission; 2% from blood products. 54.71% were receiving HAART at the time of admission. It was noted that 33.96% of patients had a CD4 count of less than 200 on admission and 64.15% had a detectable viral load at admission. Of the patients studied 11.32% had social problems, 49% had poor adherence to treatment and 41.5% presented previous opportunistic infections. The HCV coinfection rate was 39.62%. 3.77% required ICU admission. The most frequent reasons for admission were respiratory infections (33.8%) and AIDS-defining illnesses (28%) of which tuberculosis was the most frequent. Liver disease was the reason for admission in eight patients (15% of total). During the year there were seven exitus admissions (13.2% of total), most of which were due to pneumonia jirovecii and de-compensated liver disease (28.57% each). There were nine newly-diagnosed patients (16.98% of total), the most common admission diagnosis being constitutional syndrome and HIV 2 º Pneumocystis jirovecii pneumonia. These new diagnoses were mostly from admissions to internal medicine, and most were at HIV stage C3. The most common transmission mechanism in new patients was sexual intercourse.

Conclusions: As in Southern Europe in our patients are predominately intravenous drug users, which largely explains the high prevalence HCV antibodies, which is the most prevalent chronic active infection in this population. An increased incidence of newly diagnosed patients was documented, most of whom present at an advanced stage of the disease at diagnosis. An increase in sexual transmission as a means of transmission was also seen in the patients, as is typical in Southern Europe.

A-136
CLINICAL FEATURES OF TUBERCULOSIS (TB) IN IMMIGRANTS, COMPARED TO SPANISH PATIENTS

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Objectives: We aimed to analyse the impact of immigration on TB in recent years in two Spanish hospitals, comparing the clinical features in such population with autochthonous patients.

Material and method: We analyzed epidemiological & clinical data of TB cases comparing immigrant vs autochthonous patients along the study period (2000-11). To check the consistency of data in different levels of health assistance, we studied databases from two hospitals: a general hospital "Dr. J. Trueta" in Girona [G] & a district hospital "HMB" in Badalona [B].

Results: N = 503 patients (358G/145B). Male 351 (69.8%). Age 40.8 ± 21.0 years. Immigrants 181 (36%), slightly higher proportion in general (G) 139 (38.8%) than in district (B) 42 (29.0%) hospital (p = 0.04): Sub-Saharan 50G + 5B (30.4%); Morocco 31 + 9 (22.1%); S. America 26 + 13 (21.5%); Asia 10 + 12 (12.2%); East Europe 20 + 3 (12.7%), Other 2 (1.1%) Immigrants were younger than autochthonous: 31.0 ± 11.6 vs 46.3 ± 23.0 years; p < 0.5, with similar gender distribution: 67'4% vs 71.1% males, respectively; p = 0.7. The immigrants/autochthonous ratio significantly increased from the 1st half (66/193) to the 2nd half (115/129) of the period (p < 0.05), even in each hospital separately. HIV was found equally frequent in both groups, while the remaining risk factors scarcely appeared in immigrants (in this population we also detected 4 cases of TB during pregnancy). Extrapulmonary TB in both groups did not reach significance: 72 (39.8%) immigrants vs 104 (32.3%) autochthonous; p = 0.09. The only greater significant manifestation was osteoarticular TB (21 vs 13 cases, respectively; p = 0.01). We didn't find differences in the median delay of diagnosis between immigrants 32 days [IQR 16-91] & autochthonous 33 [IQR 10-74] p = 0.2, regardless the kind of hospital (Girona 33 days [IQR 14-80] vs Badalona 30 [IQR 10-90] p = 0.9 or along the study period (1st half 33.5 days [IQR 10-81.5] vs 2nd half 31 days [IQR 10'7-90] p = 0.9. Number of bacilliferous in the 309 pulmonary cases was similar in both groups: 52 (53.6%) in immigrants vs 88 (43.8%) in autochthons p = 0.1 Description of resistances: autochthonous (3Z, 2H, 1HZ) & immigrants patients (1H, 2Z, 2S, 1 Ukrainian MDR-TB & 1 Russian XDR-TB). We reviewed 347 (69%) patients with registered follow-up: 140 (40.3%) immigrants & 207 (59.7%) autochthonous. They fulfilled treatment 89/140 (63.6%) in the former group & 164/207 (79.2%) in the last group; p < 0.05, although other 54(15.6%) patients, mainly immigrants (31), were controlled elsewhere. Death for any cause was slightly more frequent in autochthonous 17 (8.2%) than in immigrants 7 (5%); p = 0.3.

Discussion: Endemic TB is higher in Spain than in other parts of Europe. Immigration has slowed the decline of TB in Spain. So far, our universal and public health system may have helped a prompt diagnostic & treatment.

Conclusions: Immigration is a risk factor for TB. There's not delay in diagnostic during the study period in such population. A trend of extrapulmonary cases is observed, significant in osteoarticular manifestations. Multiresistant TB is a particular concern, especially in those people arriving from former soviet republics. Increase of TB in immigrants makes essential to keep sanitarian politics to control its raise.

A-137
OBSERVATIONAL STUDY ON ADHERENCE TO ANTIRETROVIRAL THERAPY IN HIV PATIENTS ADMITTED TO THE SERVICE OF INTERNAL MEDICINE FOR THE YEAR 2011

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Objectives: Adherence to antiretroviral therapy (HAART) is one of the key factors in the monitoring of patients infected with human immunodeficiency virus (HIV) since, in many cases, can determine the success or failure of therapy used. The emergence of new groups of antiretroviral drugs and the introduction of new treatment strategies improved the prognosis, evolution and quality of life of patients with HIV infection. However for that treatment is to inhibit viral replication is necessary to achieve very high rates of adhesion, which determines a highly demanding in proper making medicines. It is considered to adhere to taking at least 90-95% more doses. Besides the importance of this factor to avoid treatment failure

and, as happens in other groups of anti-infective drugs must not be forgotten that there is a risk of emergence of resistant strains. The complexity of the treatment regimen, which may have a high load of tablets including multiple daily doses and the frequency of side effects make HAART difficult to tolerate. The objective of this study was to determine adherence to antiretroviral treatment of HIV patients admitted to the Internal Medicine department of our hospital.

Material and method: Retrospective observational study of patients admitted to the Internal Medicine antiretroviral treatment at the Hospital Universitario Nuestra Señora de la Candelaria in the year of 2011. Adherence was determined by structured interview and collection of medication in the pharmacy department. For the calculation of adherence in pharmacy we use a formula that analyses the collection of medication. Upon detecting poor adherence by dispensing record is confirmed by survey SMAQ.

Results: We had 88 objectified income observed during 2011, 74 patients with 14 repeated admissions. 26.13% of patients were women and 73.86% were male. The mean age was 41.55 years. The mean time to diagnosis of HIV was of 11.22 years. Regarding adherence data collected in pharmacy: we found that 51 patients of those admitted had already pre-treatment and of these 61.17% had 2 daily doses of drugs and 41.37% had a daily intake of drugs. In relation to the number of drug taking: 60% were taking 2 drugs in their treatment, 31.1% were on 3 drugs and 8.8% were taking a drug. Analyzing adherence find that 51% of patients had poor adherence. Of those admitted 23 patients had new treatments, of which 73.9% started treatment with 3 drugs, and 26.5% with 2 drugs. In relation to the number of times take medication at day 60.8% had a daily intake, and 39.1% had 2 daily doses of drugs. Of the patients 17% presented new treatment poor adhesion.

Conclusions: There is no ideal method for measuring adherence to antiretroviral therapy. The easiest methods are simple to apply and the structured interview the patient and recording of dispensations made in the pharmacy. The interview is one of the most used, but there are several versions of the questionnaire based on that, even in some cases, they may provide different results when applied to a patient. The record of dispensations is a very easy to implement but does not guarantee the reliability of the results and to go regularly to pick up the medication is not synonymous with good compliance. The formula overestimates adherence, because, there are patients who can get along medication and not take it, those who take medication underinsured not take it (no). This means that their worst adhesion is detected by this method. Adherence is one of the most important factors to achieve optimal results in the treatment of HIV infection, so that simplification of treatment regimens, tailored to the personal schedules of each patient and their lifestyle, so as the ability to anticipate possible adverse effects, interactions and resistance in the number of tablets are the basic strategies for optimizing adherence to HAART.

A-138
PREDISPOSING CARDIOPATHIES IN INFECTIVE ENDOCARDITIS

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Objectives: To know the kind of predisposing cardiopathies in endocarditis and the time needed for diagnosis and treatment to improve the attention given to our patients.

Material and method: Retrospective and descriptive study where the records of patients with endocarditis are analized from January 1st 2000 to December 31st 2011. Evaluated data are: type of predisposing cardiopathy, length of stay until diagnosis, antibiotics used prior to diagnosis, number of admittances in the previous month, empirical antibiotics used, treatment duration, inhospital mortality and number of cases that required surgical treatment. Percentages and averages have been calculated with these results and they have been compared to those in the literature.

Results: Twenty seven patients have been studied, 16 males (59.3%) and 11 females (40.7%) with ages from 30 to 85 years (average 67). Time elapsed until diagnosis varied from 1 to 18 days (average 3). In 17 cases (62.9%) a predisposing cardiopathy was identified. Predisposing cardiopathies were: mechanical valve prosthesis, 5 cases (29.4%); mitral stenosis and/or insufficiency, 4 cases (23.5%); aortic stenosis and/or insufficiency, 4 cases (23.5%); mitral valve prolapse, 3 cases (17.6%); pacemaker, 1 case (5.9%). Excluding the patients with prothesis, 2 cases were due to rheumatic endocarditis (11.7%). Antibiotics were given before diagnosis in 12 patients (44.4%): ceftriaxone (4), vancomicyn (3), quinolones (4) and rifampicin (1). The number of patients that had a previous admittance were 5 (18.5%). The treatment prescribed was an association of antibiotics in 26 cases (96.3%) and the drugs used were: gentamycin, 19 cases (70.3%); third generation cephalosporins, 11 cases (40.7%); cloxacillin, 9 cases (33.3%); vancomicyn, 8 cases (29.6%); ampicillin 6 cases (22.2%); penicillin G, 4 cases (14.8%); rifampicin, 2 cases (7.4%); amikacin, 1 case (3.7%). Treatment duration among those who didn't require surgery and those who survived was: 6 weeks, 4 cases (26.6%); 5 weeks, 5 cases (33.3%); 4 weeks, 3 cases (20%); 3 weeks, 3 cases (20%). Death during admittance happened in 3 cases (11.1%). Replacement valve surgery was needed in 13 (48.1%).

Discussion: In our series, the percentage of endocarditis with a predisposing cardiopathy is similar to the one disclosed in the literature (20-40%). An 11.7% of cases occurred in relation to a rheumatic cardiopathy, which is slightly more frequent than compiled in the literature (8%). Valvulopathy was degenerative in 35.3% of cases, more frequent than in the literature (30%); probably because of the higher age of our patients. The percentage of prolapse of the mitral valve was also greater than in the literature (10%). Endocarditis happened on a prosthetic valve in 29.4% of cases (10-30% in the literature). The chosen antibiotic and the treatment duration were correct in all cases except for 2, that were diagnosed during the early years of the study. The percentage of patients that required valve replacement surgery was 48% (40% in the literature); probably related to the high percentage of endocarditis on prosthetic valves that we found. Mortality is similar to the one published in the literature (10-15%).

Conclusions: It is important to insist on giving antibiotic prophylaxis before any kind of manipulation (dental, urinary, etc) to all patients with any of the predisposing cardiopathies detailed above; this should be written specifically in all the reports. We emphasize on the necessity of performing blood cultures prior to starting the treatment of infectious processes of not well established cause. We also stress the need of maintaining the treatment for at least 4 to 6 weeks.

A-139
DIAGNOSING HIV IN UNEXPECTED PATIENTS: OUR EXPERIENCE IN A MEDICAL WARD

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Objectives: Infection with the human immunodeficiency virus (HIV) continues to be a public health problem on a world-wide scale. Amongst the general population, risk factors such as intravenous drug use (IVDU) and men who have sex with men (MSM) are

most frequently associated with this infection, but promiscuous heterosexual behaviour and not practicing safe sex are responsible for an increasingly larger number of new cases of HIV infection. The lack of preoccupation with the latter risk factors, and the belief that these behaviours do not place people at a greater risk for HIV infection often leads to late and unexpected diagnosis. The authors carried out a retrospective study of all the patients admitted to an Internal Medicine Ward with an initial diagnosis of HIV infection to determine risk factors, the presenting clinical situation and the immunological and virological status of these patients at the time of diagnosis.

Material and method: A retrospective study of all patients admitted to an Internal Medicine Ward between January 2006 and December of 2010 was carried out. All patients without a known diagnosis of HIV infection, but who presented with a positive serological test after admission were included. The following characteristics were evaluated: gender, race, age, diagnosis at the time of discharge, serology for HIV 1 and 2, CD4 count, viral load, serology for hepatitis B and C, length of stay in the ward and outcome.

Results: During this 5 year period an initial diagnosis of HIV infection was made in 50 patients, with an average age of 46.12 years (23-76). 63.3% were male, and 98% presented with a positive serology for HIV 1. The majority of the patients were heterosexual, and presented with advanced stages of the disease – an average CD4 count below 200 cells/mm^3 and an average viral load above 450 000 copies/ml, and 18 of them presented with AIDS-defining conditions. The length of stay was significantly greater than the average for the Ward. Although only 1 patient died before Hospital discharge, clinical file review after discharge revealed a mortality rate of 30%, mostly because of opportunistic infections.

Discussion: An initial diagnosis of HIV infection in patients admitted with unspecific clinical presentations was relatively frequent. This is particularly relevant when one takes into consideration that our Hospital has an Infectious Disease Ward and 4 Medical Wards, and these numbers represent the experience of only one of these Wards. The principal risk factor was promiscuous heterosexual behaviour, with no condom use. This conclusion seems to highlight the popular misconception that HIV infection is a problem that affects mainly IVDU and MSM. The majority of patients presented with advanced disease status and many presented with AIDS defining conditions.

Conclusions: HIV is a public health concern and isn't restricted to MSM and IVDU patients anymore. As clinicians, one should be aware of this; it is important to investigate risk factors in clinical history and to test patients presenting with unspecific manifestations and vague complaints in order to shorten time to diagnosis, reduce the number of late presenters and provide early access to antiretroviral therapy. We also feel that these results highlight the need for more efficient public campaigns, as the previous ones promoting the concepts of safe sex and condom use seem to have had limited success, and raise the discussion on public HIV screening, especially in regions with high HIV incidence. As for now, voluntary testing seems to be the clue to broaden the possibility of diagnosis to the general population.

A-140
SEROPREVALENCE OF TETANUS, DIPHTERIA, PERTUSSIS AND MEASLES IN TURKISH ADULTS: IMPLICATIONS FOR ADULT VACCINATION

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Objectives: Antibody levels against diseases covered by childhood immunization schedules diminish due to immune aging, indicating the need for an adult immunization schedule. The primary aim of the study was to investigate the prevalence of seropositivity against tetanus, diphteria, pertussis and measles in adult and elderly patients visiting the outpatient clinic of General Internal Medicine and Geriatrics Departments of Hacettepe University Faculty of Medicine. The second aim was to determine the need for booster vaccination with regard to predefined cut off antibody levels.

Material and method: Patients who were seen in the General Internal Medicine and Geriatrics outpatient clinics between May 2011 and December 2011, and who consented were enrolled to the study. Demographic characteristics and chronic diseases were recorded. Disease and vaccination history about tetanus, diphteria, pertussis and measles were obtained depending on the patients' declaration. Blood samples for tetanus, diphteria, pertussis and measles antitoxoid antibodies were obtained and centrifuged to keep the serum samples until they were collectively analyzed. Tetanus toxoid IgG, diphteria toxoid IgG, Bordatella pertussis toxin IgG, measles virus IgG levels were determined by using enzyme immunoassay (ELISA) method. Results were evaluated in terms of seropositivity, need for booster vaccination and protection with regard to recommended cut-off values.

Results: A total of 1367 patients consented, however 1,303 blood samples were available. Mean age of the patients was 57.1 ± 15.8 and 68% of them were female. Diabetes was the most prevalent chronic disease (23.5% of patients). Serum antibody levels were classified as protective or non-protective with regard to defined cut off values for each disease. Protective antibody levels were present for tetanus, diphteria, pertussis and measles in 31%, 34.8%, 9.7% and 98.8% of the patients respectively. Booster vaccine was indicated in 77.3%, 96.4%, 90.3% and 1.8% of the patients respectively.

Discussion: Adult vaccination coverage has been low, despite the increasing attention and constantly updated guidelines released by national and international authorities. Former epidemiological studies from Turkey revealed similar and even lower seropositivity rates for diphtheria, tetanus and pertussis. This study not only evaluated the antibody levels but also the presence of chronic diseases which themselves indicate the necessity of adult vaccination against certain infectious diseases. More than 75% of patients required a booster for tetanus, while more than 90% of them required a booster for diphtheria and pertussis with regard to antibody levels. Interestingly, only 2% of the study population was supposed to receive a measles vaccine, presumably due to the high rate of childhood infection as disclosed by the patients.

Conclusions: This study demonstrated that seropositivity is low for diphtheria, tetanus and especially for pertussis in adult and elderly patients. Booster vaccinations are required in adult life in accordance with national and international adult vaccination guidelines.

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EVOLUTIONARY DIFFERENCES BETWEEN THE INFLUENZA A VIRUS SUBTYPE H1N1 AND INFLUENZA A VIRUS SUBTYPE H3N1 AMONG HOSPITALIZED PATIENTS IN THE COMPLEJO ASISTENCIAL UNIVERSITARIO DE BURGOS

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Objectives: To analyze the outcome evolution in patients infected by influenza A virus subtype H1N1 and influenza A virus subtype H3N1 since the beginning of their admission and during the treatment in a tertiary care hospital.

Material and method: This is a retrospective cohort study in which 107 patients were analyzed in the Internal Medicine and

Pulmonology departments in a tertiary care teaching hospital. Two groups were compared: the first sample consists of 30 patients affected by influenza A virus subtype H1N1 between October 2010 and April 2011, and the second sample consists of 77 patients affected by influenza A virus subtype H3N1 between October 2011 and April 2012. The diagnosis was confirmed using the PCR technique in nasopharyngeal aspiration and throat culture. A comparison was made connecting the complications and the response applied in both samples.

Results: In the sample of influenza A virus subtype H1N1, patients showed pneumonitis (56.7%) and bacteraemia (6.7%). Only one patient showed an ischemic attack, and another one showed myoclonus. A broad-spectrum antibiotic was applied in 89.7% of the patients, 71% received a corticosteroid treatment and in 65.5% oseltamivir before the first 48 hours. Just a patient was admitted to the Intensive Care Unit in order to use mechanical ventilation. The average stay in the hospital was 6.9 days. In the sample of influenza A virus subtype H3N1, 2.6% patients showed pneumonitis and bacteraemia (5.3%) and there was one case of viral pleuropericarditis. A broad-spectrum antibiotic was applied to the 89% of the patients, 80% used corticosteroids and oseltamivir was applied before the first 48 hours to 60% of the patients. None of the patients were admitted to the Intensive Care Unit and 3 patients died because of non-related causes. Their average stay in the hospital was 9.2 days.

Discussion: Influenza is usually a self-limited infection, though acutely debilitating. However, it is connected with increased morbidity and mortality in certain high-risk populations. If we initiate antiviral therapy without delay, it can shorten its symptoms from one up to three days; the benefit is even greatest when given it within the first 24 to 30 hours. In patients with fever, it has been demonstrated that there is almost no benefit when the treatment is initiated two days or more after the onset of uncomplicated influenza. Some studies have suggested that antiviral therapy has several benefits like the reduction of the severity and frequency of complications caused by influenza, the duration of hospitalization in patients with severe influenza, and influenza-associated mortality. Antibiotics are indicated only for bacterial complications of acute influenza such as bacterial pneumonia, otitis media, or sinusitis.

Conclusions: Pneumonitis and other cardiovascular problems are significantly associated with subtype H1N1. As it has been showed in other studies before, the beginning of the specific antiviral treatment in the first 48 hours implies a reduction of the average stay of the patients in the hospital, but it does not affect the mortality rate.

A-142
MANAGEMENT OF COMMUNNITY ACQUIRED PNEUMONIA IN A SHORT STAY UNIT

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Objectives: To describe the demographical and clinical characteristics of patients admitted into a SSU and their comorbidities. To analyse this unit's efficiency in terms of readmissions and appropriateness of therapeutical approaches implemented.

Material and method: Descriptive, prospective study in Hospital Universitario Nuestra Señora de la Candelaria's SSU selecting all patients with a discharge diagnosis of CAP (GRD) between February 2011 and February 2012. The following variables are analysed: age, gender, pluripathology according to broadly used criteria, pneumonia severity (Fine) index, basal treatment, stay (days), antibiotics on admission and on discharge and readmissions.

Results: A total of 34 consecutive patients were analysed. Mean age was 76 ± 10.42 years. 19% were male. 38% computed as pluripathological patients, meeting at least two criteria. 41.2% were classified as category IV according to Fine's classification criteria. The accrued frequency of mean length of stay of 4 days was 90.6%. There was a statistically significant correlation between the number of pluripathological categories and length of stay (Rho = 0.472; p = 0006). Length of safy also correlated with temperature on admission (Rho = 0.629; p = 0.021). 3 of the patients had to be readmitted for the same reason following 30 days after hospital discharge. Maximum length of stay was 5 days. No statistical significant differences were seen comparing groups above and below 4 days of stay.

Discussion: Community acquired pneumonia (CAP) is a highly prevalent infectious disease among elderly people, often requiring hospital admission. Short stay units (SSU) might be a useful tool able to provide enough warranties in terms of clinical management and could help reducing in-hospital length of stay, hence improving bed management efficiency and reducing comorbidity directly related to prolonged in-hospital stay.

Conclusions: SSU can be an efficient and safe alternative to conventional treatment of CAP, can help reducing mean length of stay without playing any role on readmissions. Moreover, in our experience, the patient profile is an elderly, pluripathological, physically or socially dependent patient that is also chooseable for this modality of treatment.

A-143
AMEBIASIS, AN EMERGING PATHOLOGY IN DEVELOPED COUNTRIES?

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Objectives: Describe the epidemiological and clinical features of patients with intestinal or invasive amebiasis, for the last 10 years in our center.

Material and method: From January 2002 to January 2012, ten reported cases of amebiasis (70% male) were diagnosed at our hospital. Risk factors (travel or source of endemic area, HIV infection and unsafe sex), service income, clinical presentation and relevant data of physical examination were collected. Invasive disease was defined as extraintestinal, involving liver, lungs or brain. Imported cases were those from endemic areas or with history of travel to these areas, considering the rest as native. Laboratory tests determined the presence of eosinophilia (500 cells/dL), anemia (Hb 12 g/dL), elevated erithrocyte sedimentation rate (ESR) (15 mm/h), elevated C-Reactive Protein (C-RP) (0.5 mg/dL), altered transaminases (AST 37 U/L or ALT 40 U/L), elevated total bilirubin (1.2 mg/dL) and Entamoeba histolytic serology (indirect hemagglutination antibody detection), defined as positive titer from 1/320 and high titer from 1/1280. Parasite detection was performed by microscopic examination of stools or aspirated fluid from the abscess puncture and polymerase chain reaction (PCR). Data were collected from abdominal ultrasound, abdominal computerized tomography (CT scan) and colonoscopy. Type of treatment (medical, surgical or both), complications and mortality were also analyzed.

Results: The mean age was 38 years (27 SD10 in women and 43 SD13 in men). 40% of the cases were native and 60% imported. 60% had an invasive disease (all of them with liver abscess). There was no pulmonary neither cerebral disease in our series. Only two cases were HIV-positive and just one case has had unsafe sexual practices.

80% were admitted in internal medicine service, 3 of them in digestive diseases section. 40% of the cases presented diarrhea, 30% fever and 20% weight loss. Hepathomegaly was found in 50% of patients. Laboratory tests revealed that almost two thirds had elevated values of ESR and C-RP. 40% had eosinophilia, 60% anemia, half of the cases had high levels of transaminases and only two patients had elevated bilirubine. Six out of 9 cases we performed serological test, resulted positive. Five of them were highly positive. Microscopic examination of stools (80% of cases) and aspirated fluid of abscess (40%) was made, resulting positive in just two and none of the cases, respectively. In just one case, a PCR of the abscess fluid was applied, being highly positive. In 70%, an abdominal ultrasound was performed and in five of them, also a CT scan. The mean size of the abscess diameter was around 5.5 cm. In addition, four of them were multiple. 50% of the patients underwent colonoscopy (in 3 of them mucosa ulcerations were found and in the rest the result was normal). 9 of the patients were treated with metronidazole 750 mg po tid, and a pregnant patient, with paromomycin. In 3 cases (30%), a surgical drainage of the liver abscess was performed, without finding a common criteria for this aptitude. There were no deaths in our series.

Discussion: The prevalence of amebic infection is higher than expected in our environment, not only in imported cases, but also in natives (40% of the cases). It is remarkable how common liver involvement is. It seems that surgical drainage of liver abscess does not provide a clear benefit in evolution. It is considered useful to provide an adequate management of this patients, according to an accurate collection of risk factors, and guidance of diagnostically tests, specially serological supported by imaging techniques, being the profitability of the ultrasound similar to the CT scan.

Conclusions: Native amebiasis appears to be more common than expected in developed countries. It must be considered as a cause of diarrhea and fever in young men, even if they have not travelled to endemic areas.

A-144
SEPSIS CAUSED BY GROUP A STREPTOCOCCUS, S. PYOGENES, IN ADULT POPULATION. RETROSPECTIVE STUDY 2005-2011 IN A TERTIARY HOSPITAL

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Objectives: The Group A Streptococcus (GAS), Streptococcus pyogenes, is a grammpositive aerobic coccus which is associated with a variety of suppurative infections. Most frequently it causes pharyngitis and skin infections, usually with a good clinical outcome with the appropriate medical treatment. In rare occasions Streptococcus pyogenes causes invasive infections, with high morbidity and mortality even after a suitable and early treatment is administered. The invasive GAS infections only represents 0.6% of the adult bacteremia To describe the invasive GAS infections/sepsis incidence, during a 6 year period (2005-2011) we conducted a descriptive study with respect to the epidemiological, microbiological and morbimortality clinic characteristics.

Material and method: We examined the Group A Streptococcus (GAS) isolations in our medical center throughout the 2005-2011 period and we obtained 223 cases, of which 27 patients satisfied invasive GAS infection/sepsis criteria.

Results: From our sample of 27 patients with an invasive GAS infection/ sepsis diagnostic from group A Streptococcus, Streptococcus pyogenes, 63% were males and 37% were females. When analyzing patients, comorbidity cardiac disease was detected in 29.6% of the cases, kidney disease in 22.2%, pulmonary disease in 18.5%, diabetes mellitus in 11.1%, liver disease in 11.1%, alcoholism in 7.4% and peripheral vascular disease in 3.7%. In the patient/year distribution there is a remarkable increase in the number of cases throughout 2010 and 2011. Of our sample, 25.9% of the patients suffered a previous skin disease as a primary site of infection. Patients presented evidence of the following symptoms: fever (88.9%), soft tissue (63%), joint (22.2%), gastrointestinal (22.2%), respiratory (18.5%), pharyngitis and amygdalitis (14.8%), and urinary (11.1%). The establishment of the clinic was sudden and devastating in a 22, 2% of the patients, with a less than 12 hour range since the first symptom until the establishment of the invasive GAS infection/sepsis. C reactive protein was determined in 21 patients. In 76% of the cases, the value was 10 times higher than the referenced one. Procalcitonin was determined for 44, 4% of the patients, obtaining values higher than 10 ng/ml in a 41% of the cases. The Group A Streptococcus (GAS), Streptococcus pyogenes, was isolated in 59.3% of the blood cultures, in 40.7% of the skin and soft tissues cultures, in 11.1% of synovial fluid cultures, in 7.4% of throat cultures, in 3.7% of bronchial aspirate cultures and in 3.7% of cerebrospinal fluid cultures. The microorganism was isolated simultaneously in blood cultures and in cultures of other locations in the 22% of the patients. In the emergency department, the patients were treated with antibiotic therapy according to the guidelines of sepsis severe, and then according to the antibimicrobial susceptibility testing. Debridement surgical techniques were used on a 33% of the patients. 44.4% of the patients were admitted to the intensive care unit with a 25.9% of mortality. Long-tem effects were observed in an 11.1% of the patients.

Conclusions: The invasive GAS infections/sepsis, as in others studies, has a high mortality. The average age is wide. 96.2% were immunocompetent, in contrast to previous decades, when invasive GAS infections were associated with immunocompromised patients older than 60 years. Throughout our study the predisposing factors involved were cardiac and kidney disease; unlike others series in which predisposing factors has been frequently associated with diabetes mellitus and alcoholism. We haven't recorded any case of association with previous chickenpox. Neither have we detected events associated with postpartum or gynecological surgery described extensively in medical literature. This study has shown how an apparently trivial skin infection can lead to severe ones associated with high mortality. In our sample 22% of the patients had a very quick development of the invasive GAS infection/ sepsis, fact that proves the need of an early medical/surgical treatment.

A-145
MALARIA IN A NON-ENDEMIC AREA

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Objectives: Knowing the main features of malaria cases diagnosed in our health area, located in a remote region of migration flows and with a strong marine character and whether some characteristic epidemiological, clinical, analytical or treatment was related to increased mortality.

Material and method: We propose a retrospective observational descriptive study of all patients admitted over 15 years from January 1976 to April 2012.

Results: During this period there were diagnosed 102 cases in 99 patients (97 males) with a median age of 36 years. The mean period of hospital stay was 11.2 days. The time to diagnosis ranged

from 1 to 60 days with an average of 13 days and the time of defervescence of 2.3 days. Regarding to occupation almost all of them were sailors or worked in related tasks to fishing or on ships goods. Only one patient had no relation with navigation but had been working on Ivory Coast. Of the 2 females,1 had a recent vacation trip to Kenia and the other worked as a volunteer on an endemic zone. Only 15 patients had taken chemoprophylaxis (14.7%) and 21 (20.5%) have had malaria previously. The 78% (80) were Spanish citizens. The most frequent zones of contagion were: West Africa coast 73.5% (mainly Equatorial Guinea) and east Africa coast 11.7%.We had an autochthonous case in a patient who was infected due to the use of parental drugs and sharing needles with an infected person with malaria. The most frequent specie was P. falciparum: 58%. Respect to symptoms: fever (100%), chill (47%), vomiting (41%), profuse sweating (41%) and signs splenomegaly (34.3%), hepatomegaly (27.8%) and jaundice (19.6%). The blood test most important findings were: anemia (50%), increased level of liver enzymes (50.5%), thrombocytopenia (43%) and leukopenia (36.2%). Renal function failure occured in 15.6%, severe anemia that required red blood cells transfusion in 11.8% and central nervous system afection in 3 patients. Regarding to evolution, 3 patients died all from Equatorial Africa: 2 of them with parasitemia 100% died in the first 24hs of treatment. Note that all severe patients had not prophylaxis, had not had malaria previously, and the species involved was P. falciparum. The most frequent treatment administrated were chloroquine 48.4% and the combination of quinine sulfate and doxycycline or sulfadoxine-pyrimethamine in the 37.2% of the cases.

Discussion: Due to the nature of our hospital, all male patients diagnosed they were for professional reasons, whether related to fishing well with shipping goods which sets us apart from other series published in Spain. It seems important to note that significant differences in terms of average stay for patients treated before 2000 (12.29 days)-hydroxychloroquine-treated mostly with respect to those treated later (6.3 days)-mostly treated with quinine plus doxycycline-having found no such differences when comparing treatment regimens, which seems to show that improving the quality of care could be related to these differences.14.7% of patients received chemoprophylaxis, a percentage significantly lower than that estimated for Spain (20-43%). Yet this fact was not associated with increased mortality. Within the criteria of severe malaria by WHO in 2000 we only found a relationship with mortality shock he suffered.

Conclusions: The typical profile of a patient suffering from malaria in our area is that of a young man, sailor, to stay in sub-Saharan waters and has not taken prophylaxis. There was no increase in the number of patients who received chemoprophylaxis in recent years for greater access to information, so we must focus our efforts on prevention programs targeted to populations at risk. Mortality was associated with falciparum species, with the absence of chemoprophylaxis and a clinical picture compatible with shock. There was no association between diagnostic delay and increased mortality. It is the only study where all the male patients were engaged in work related to the sea.

A-146
STAPHYLOCOCCUS AUREUS BLOODSTREAM INFECTIONS

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Objectives: Bacteraemia caused by Staphylococcus aureus is associated with high morbidity and mortality. The aim of the study was to analize the clinical characteristics from patients admitted to our Hospital who had bacteraemia by Staphyloccocus aureus and compare about the differences between methicillin-resistant and methicillin-susceptible Staphyloccocus aureus.

Material and method: We reviewed the medical records of 86 patients admitted to Badajoz University Hospital who had bacteraemia by Staphyloccocus aureus (positive blood cultures registered by Microbiology department), during the period of 1 January 2010 through 30 April 2012. The pediatric population was excluded. Statistical analyses were performed by use of SPSS program (version 18.0). In the first time we conducted a descriptive study about the clinical characteristics from the 86 patients. On the second time we conducted a cohort study with two groups: patients with bacteraemia by methicillin-resistant Staphyloccocus aureus and patients with bacteraemia by methicillin-susceptible Staphyloccocus aureus.

Results: The average age of patients was 63 years (standard deviation 16.8). There were 53 male and 33 female. The results about personal history studied were: 13 patients had drug allergy history, 40 patients were immunocompromised (the most had diabetes mellitus, followed by neoplasms and immunosupressive therapy), 21 had valvular disease, 13 had permanent catheter or arteriovenous fistula and 4 patients resided in community center. All patients had risk factors except one. The most frequent risk factor was "take antibiotic before bacteraemia" (94.2%), followed by peripheral line (93%), "stay longer than 7 days" (70.9%), "urinary catheter during admission" (60.5%), "central line during admission" (59.1%), blood transfusion (19.8%), "surgical site infection" (5.8%) and bed sore (5.8%). We found a secondary focus of bacteraemia in 77 patients, and in 9 cases was primary bacteraemia. The most frequent origin in secondary bacteraemia were: venous access (39.5%), lung (22.1%), urinary (15.1%); less important were surgical site infection, skin, bone, fluid peritoneal or cerebrospinal. Blood cultures in 25 cases were positive to methicillin-resistant Staphyloccocus aureus and 61 to methicilin-susceptible Staphyloccocus aureus. In 26 patients infection was acquired in community (positive blood culture in the first 72 hours of admission). We performed echocardiogram in 37 patients, and we found infective endocarditis in 16.2% of cases. The most used antibiotics were: cloxacilin (10 patients), linezolid (10), vancomycin (9), daptomycin (4) and cotrimoxazol (4). Input focus (urinary catheter, peripheral o central line…) was removed in 85.1% of cases. 44% of patients presented factors associated with poor prognosis, 35 patients needed intensive cares and 13 were exitus. In the cohort study we found significant differences only in valvular disease: it was more frequent in the methicillin-resistant Staphyloccocus aureus group (with a p value lower than 0.05).In the other analyzed variables we didn't find significant differences between both groups.

Discussion: Our study results: the personal history characteristics, risk factors and type of infection (community, primary or secondary), were similar to the literature. However we didn´t find significant statistical difference in mortality between methicillin-resistant Staphyloccocus aureus and methicillin-susceptible Staphyloccocus aureus ("comparison of mortality associated with methicillin-resistant and methicillin-susceptible Staphylococcus aureus bacteraemia: A meta-analysis"), maybe because the patient sample was too small.

Conclusions: Despite the advancement of antibiotic treatment and microbiology procedures, the Staphyloccocus aureus bacteraemia is yet associated to a high morbidity (endocarditis in the 16% of patients who were realized echocardiogram) and high mortality (15.1% of patients were exitus).

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TREATMENT OF INFECTIVE ENDOCARDITIS AT HOME. 16 YEARS EXPERIENCE

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Objectives: Outpatient parenteral antibiotic therapy (OPAT) is increasingly used; in case of Infective Endocarditis (IE) is not common because of its severity. The guidelines about OPAT are conservatives. The objective of this review is to present our experience in this field for a period of 16 years.

Material and method: A prospective population-based observational study was conducted in Hospital Donostia of all IE cases diagnoses in the period 1996 to March 2012 treated in Hospital at Home. Diagnosis was performed according to modified Duke criteria. We collected data about Epidemiological, etiological and management characteristics.

Results: In a period of 16 years, 110 cases of IE were treated by OPAT. According to modified Duke criteria, 73 cases were classified as definitive cases and 37 as probable cases. Sex distribution: 83 (75.5%) men and 27 (24.5%) women. The patients´ mean age was 66 years (range, 26-92 years). Patients over 60 years: 77 (70%); patients over 80: 18 (16.36%). The distribution of the location of IE was: 66 native valves (aortic: 26; mitral: 32; tricuspid: 6; pulmonary: 2); 26 prosthetic valves (aortic:17; mitral: 9); 11 intracardiac stimulation devices; the location of IE remained uncertain in 11 patients. 6 patients had two valves affected and only one patient had all the valvular system involved; Causative microorganisms were: 20 (18.2%) coagulasa negative Staphylococci; 11 (10%) MSSA; 48 (43.6%) S. viridans; 7 (6.4%) other Staphylococci and Streptococci; 11 Enterococci (10%); 3 (2.7%) anaerobic germens; 5 (4.5%) another Gram negative germens (2 HACEK); 5 patients (4.5%) had no etiologic agent identified. The antibiotic regimen used was: ceftriaxone 38 cases (plus aminoglycoside 16); ampicilin 19 cases (plus aminoglycoside 10; plus ceftriaxone 2); cloxaciline 17 cases; daptomycin or vancomicyn: 10 cases; penicillin G 6 cases; piperacilin-tazobactan: 2 cases. Median of the days of hospital treatment was: 16.20 (range 0-59 days); days of treatment in Hospital at Home were 21.57 (range 1-125 days). Patients were referred from: Infected Disease Unit (49 cases); Internal Medicine Service (44 cases); other services (8 cases). Patients with any type of infuser electronic device for treatment: 43 (39%). Patients who completed the antibiotic cycle at home: 88 (80%). There were 22 readmissions (20%). The causes of readmission were: fever, vascular access problems, neurological symptoms and others. Median de day of the readmission: 18 days. The mortality rate was 0.90% (1 case).

Conclusions: OPAT is an alternative to treatment of IE. In our series, affected valve and etiologic agent don´t determine the outcome. The choise of this treatment modality requires close monitoring. It is necessary a trained team to establish OPAT and to coordinate the services implicated in this programme.

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TUBERCULOSIS REGISTER: A 9-YEARS STUDY AT FUENLABRADA UNIVERSITY HOSPITAL

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Objectives: Tuberculosis (TB) is a major public health problem all aronund the world. In Spain, rates triple those of other European Union countries, especially among immigrants. The percentage of immigrants in our area is 15.7% (2011). We describe all cases of TB diagnosed at Fuenlabrada University Hospital (FUH) during 9 years, analyzing epidemiological, clinical, microbiological and therapeutic factors.

Material and method: Descriptive prospective study of all cases of TB diagnosed at FUH, in south-east area of Madrid, from June 2004 to December 2011. Patients were collected from consults and during hospital admissions. We made a systematic review of electronic clinic history. χ^2 was used for categorical variables (or exact Fisher test when indicated) and U-Mann-Whitney or t-Student for continuous variables. p significance was < 0.05 for all statistical analysis, using the SPSS 18.0 version.

Results: During this period we diagnosed 288 cases of TB: most of them were pulmonary cases (193/288 (67.01%)) followed by lymphatic (31 (10.7%)) and pleural (30 (10.4%)). There was an increased incidence of new diagnoses between the 2005-2008 years, with 60.7% of cases diagnosed in this time frame, later it descends. Most were male (183:107) with a mean age of 39.33 years ± 20.2 (36) (0-89). The 44.4% (128/288) were immigrants, mainly from Arab countries (28.9%), Sub-Saharans (28.1%), Latin America (21.09%) and from Eastern Europe (18.75%). Immigrants patients with TB were significantly younger than the Spanish, in our series ((33 ± 13.5 (31) versus 44 ± 3.4 (40) years (p < 0.05)). The 22.41% were immunosupressed, especialy due to HIV infection (14/288). The 15.9% had been in contact with other patients previously diagnosed of TB and up to 7% had a history of inadequately treated TB. Only 113 patients had positive Mantoux. The symptoms were variable depending on the location, but fever was present in 47.2%. Acute phase reactants were slightly elevated (mean CRP 3.69 mg/dl ± 6.71) and most of patients had not leukocytosis. Anemia was present in 26.2% of cases. Lobar infiltrate was the most frequent radiological pattern (28.3%) followed by cavitation (19.7%). Normal chest radiography was seen in 64 patients. Microbiologycal diagnosis was achieved in 191 cases. We made 60 histological diagnosis with demonstration of necrotizing granulomas and, finally, just 37 patients had clinical diagnosis. We detected 19 cases of resistance to TB drugs (6.59%), within which there were 10 multi-drug resistant TB patients. Almost half of patients (47.2%) received treatment with three drugs and the other half (44.8%) with four; the rest received second-line treatments. The mean treatment time was 6 months (± 3.47). Treatment toxicity was low: hepatotoxicity was the most frequent (6.2%) followed by skin toxicity (2.8%). Only 7 patients required Intensive Care Unit admission. The outcome was generally favorable but there were 48 losses of follow up, mainly in the group of Sub-Saharan and Arab patients (p < 0.05). Mortality was very low in our series (2.41%).

Conclusions: About half of diagnosis of tuberculosis made in our area tend to be in immigrants, mostly from Arab or Sub-Saharan countries and Latin America and they are younger than the Spanish patients. The most common finding is fever with or without respiratory symptoms. Acute phase reactants are sightly elevated, most cases have not leukocytosis and up to a quarter of patients may have anemia. We detect more than 6% of resistant tuberculosis. There is poor adherence to treatment and monitoring in sub-Saharan and Arab patients.

A-149
INCIDENCE, RISK FACTORS AND PROGNOSIS OF BACTERIAL INFECTIONS IN CIRRHOTIC HOSPITALIZED PATIENTS

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Objectives: Bacterial infections are a frequent complication in patients with advanced liver cirrhosis (LC). They occur in 20-60% of patients admitted for decompensate disease. Although its prognosis has improved in recent decades, mortality associated with severe infections is still high, reaching 50-60% in patients who develop septic shock. Changes in the epidemiology of infections in these patients have been reported such as increased incidence of nosocomial infections which are mainly caused by gram-positive cocci. As a consequence of these changes it would appear that currently recommended regimens for empirical therapy for these infections were ineffective with hospitalized patients. OBJECTIVE: Determining actual incidence of infection in patients with CH who were admitted to hospital and being able to objectify etiology, risk factors and their impact on mortality.

Material and method: A prospective study of patients with CH who were admitted to our department from March 2010 until August 2011 was used. All patients underwent ascitic fluid cultures, blood and urine tests and were taken a chest radiography at admission in order to search for any kind of active infection. Tests were repeated if they showed symptoms or signs of infection and/or decompensated cirrhosis during their hospital stay. All data relating to liver disease, performing invasive procedures and the results were collected and entered into a database. Data were analyzed using SPSS 17.0.

Results: 423 admissions of 209 patients with CH were analyzed. We detected a total of 248 episodes of infection, with an infection rate of 58.6% of which 60.8% were acquired in the community and the rest were considered hospital acquired. Most (40%) were caused by gram-positive cocci. The most frequent infections were urinary (19.5%), respiratory (14.6%) spontaneous bacterial peritonitis (8.2%) and primary bacteremia (8.2%). A third of the infectious episodes were asymptomatic and detected thanks to a screening study. In the multivariate analysis, the presence of infection was associated only with the Pugh Child (CP) stage C and cholesterol levels ($p < 0.001$). Analyzing only hospital-acquired infections, the only independent risk factor was the development of invasive techniques ($p < 0.001$). Hospital mortality was significantly higher in cirrhotic patients with infection than those without infection (23.6% vs 8.6%) $p < 0.001$. In multivariate analysis the presence of infection and the CP stage were the only factors independently associated with hospital mortality.

Discussion: The frequency of infection in cirrhotic patients admitted to our hospital is similar to that described in literature which is about 60% and with the severity of liver disease, one of the major determinants of hospital mortality of these patients. The incidence of nosocomial infections is high and is clearly related to the performance of invasive procedures. Nearly half of all nosocomial infections were caused by Gram-positive cocci, suggesting that empirical treatment guidelines currently accepted should be modified and readjusted to the epidemiological profile of each environment.

Conclusions: Infections in hospitalized patients with CH are highly prevalent in our environment and they have high risk of mortality. As they are often asymptomatic they should be kept in mind in order to diagnose and treat them.

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MORTALITY RISK FACTORS IN PATIENTS WITH ACINETOBACTER BAUMANNII BACTEREMIA: CASE CONTROL STUDY

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Objectives: Bacteremia caused by Acinetobacter baumannii has contributed to high mortality rate, prolonged stays in the intensive care unit, and rapid development of antimicrobial resistance to commonly used antimicrobials. This study sought to determine predictors of mortality for patients with A. baumannii bacteremia.

Material and method: We retrospectively reviewed 99 adult patients with A. baumannii bacteremia, between 2000 and 2010; the 50 (50.5%) who survived were categorized as the survivor group (group 1), and the 49 (49.5%) who died as the mortality group (group 2). Cure was achieved when clinical signs of infection were absent. To assess survival, patients were followed-up until they died in the hospital or were discharged. Continuous values were expressed as means and compared using Student's t-test or the Mann–Whitney U-test. Categorical values were expressed as absolute and relative frequencies and were compared using Fisher's exact test or χ^2 test. A P value less than 0.05 was considered as statistically significant. A binary logistic regression analysis using a stepwise (Wald) approach to determine the factors influencing the mortality of the infection was performed.

Results: We reviewed 99 bacteremias by A. baumannii in 99 patients Cure of the infection was reported in 50 cases, and the remaining 49 patients died as a direct consequence of the infection. There were no significant statistically differences in sex, age, service of precedence, mean stay in hospital or presence of central venous catheter, mechanic ventilation or bladder catheter. The presence of diabetes (2 in group 1 vs 10 in group 2, $p = 0.028$, OR 5.4 [1.103-26.443]), was significantly associated with higher mortality. Significantly higher mortality was found in abdominal origin of infection (5 cases in group 1 vs 13 cases in group 2 $p = 0.040$; OR = 3.250 [1.060-9.967]). The presence of septic shock (24 in group 1 vs 42 in group 2 $p = 0.0001$), distress respiratory (11 in group 1 vs 35 in group 2 $p = 0.000$) and renal failure (13 in group 1 vs 32 in group 2 $p = 0.000$) was associated with higher mortality. Twenty patients in survivor group showed carbapenem resistant and 37 in mortality group ($p = 0.003$ OR 3.42 [1.38-8.59]). Thirty-seven patients were treated with colistin, 31 with carbapenems, 15 with only aminoglycosides, and the rest with other treatments. Mortality was lower in patients treated with carbapenems (21 group 1 vs 10 group 2, $p = 0.047$, OR = 2.49 [0.92-6.87] and higher in aminoglycosides group (2 in group 1 vs 13 in group 2, $p = 0.0006$,) Seven patient died before the instauration of a definitive treatment. In the multivariate analysis, mortality was only influenced by treatment, and carbapenem resistant.

Conclusions: Mortality of bacteraemia by A. baumannii is higher. Treatment with only aminoglycosides, and carbapenem-resistant, were independent risk factors associated with higher mortality rates for A. baumannii bacteremia.

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THE COMBINED EFFECT OF COLISTIN WITH RIFAMPICINE OR TIGECYCLINE IN THE IN VITRO RESISTANCE TO COLISTIN IN ACINETOBACTER BAUMANNII

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Objectives: Acinetobacter baumannii appears ever more frequently as the cause of serious intra-hospital infections with high morbi-mortality, showing high rates of resistance to the anti-microbians used in clinical practice. Colistin (COL) is one of the most recent therapeutic alternatives available, with sensitivity rates close to 100%. Due to the every growing use of COL, there have been outbreaks from COL-resistant strains, which, although sporadic, are more and more frequent. Our objective is to study the prevention of resistance to COL in A. baumannii by using a combination of COL with rifampicine (RIF) or tigecycline (TIG).

Material and method: A standard A. baumannii ATCC 19606 strain was used. Minimum inhibitory concentrations (CMI) and bactericide concentrations (CMB) for COL, RIF and TIG were determined according to the micro-dilution in broth method by Clinical Laboratory Standard Institute. The selection of COL-resistant colonies were studied using fatality curves, performed by duplicity (primary and secondary curves) where the initial A. baumannii (5×10^5 ufc/ml) was inoculated; it was incubated with COL only and in combination with RIF or TIG at a concentration equal to 1xCMI and at the maximum concentration (Cmax) reached in saline solution in humans with standard therapeutic dosage. The bacterial concentration was quantified after 0, 24, 48 and 72 hours in agar-blood plates and in plates with COL (4 µg/ml) to select the COL-resistant colonies. The stability of these resistant colonies was assessed by means of streaking in series in the agar-block plates free of antibiotics during five (5) consecutive days.

Results: CMIs/CMBs (mg/l): COL 0.25/0.25; RIF 2/4; TIG 0.12/0.12. Selection of colonies resistant to COL: at a concentration of COL at 1xCMI, resistant colonies were observed in the plates after 24, 48 and 72 hours. When combined with 1xCMI of RIF, no resistant colonies were selected and the initial inoculant was eradicated. The combination with 1xCMI TIG failed to generate resistant colonies, but the inoculant was not eradicated in within 72 hours. With a concentration of COL equal to Cmax in humans, no resistant colonies appeared and the initial inoculate was eradicated. The combinations of COL plus RIF or COL plus TIG at a concentration equal to the Cmax obtained in humans failed to generate resistance while the inoculate was eradicated in 72 hours. In the study for the stability of the resistance to COL in the resistant colonies, there was a loss of resistance to COL in the colonies obtained in the primary fatality curve after five streaks in the plate without antibiotic pressure, while for those obtained in the second curve, the resistance to COL remained stable.

Conclusions: Our results show that the appearance of in vitro resistance to colistin in Acinetobacter baumannii may be avoided by using colistin in combination with rifampicine or tigecycline. These results authorize us to assess said combinations in animal infection models.

A-152
A 5-YEAR REVIEW OF ASPERGILLOSIS CASES IN A PORTUGUESE TERTIARY HOSPITAL

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Objectives: The pulmonary form of aspergillosis goes from the simple aspergilloma to the invasive aspergillosis, that has emerged as one of the most common and most feared opportunistic infections in immunocompromised patients; mortality in patients with full-blown aspergillosis exceeds 50%. The authors objective is to characterize the aspergillosis profile in their clinical environment.

Material and method: Retrospective analysis of the case files, patient past medical history and treatment options in patients with the diagnostic of Aspergillosis.

Results: 8 patients were identified, 50% male, with an overall average age of 63 years and 45 days of hospitalization. The dominant symptoms were fever, cough (75%) and shortness of breath (62.5%). The main risk factor identified was a prior pulmonary tuberculosis (87.5%), with only one chronic immunosuppressed patient enrolled. 87.5% presented imagiologic changes suggestive of Aspergillosis. The diagnostic accuracy due to other diagnostic test was 50%. The pharmacologic treatment was 87.5% done with voriconazol and the mortality observed was 12.5%.

Discussion: In our environment, the preexisting structural lung disease presents the leading role in predisposing host factors associated with invasive pulmonary aspergillosis. There was a good correlation between imagiology and diagnostic accuracy, and a low rate of Aspergillus isolations.

Conclusions: The length of stay (LoS) represents an significant economic burden to the health system. The low mortality in our sample is mainly due to the non-immunosuppressed pattern of the subjects. The risks for disease and the type of disease that occurs are the combined result of multiple cellular functions that impact in conidial clearance, production of inflammation, and killing of invasive forms. The use of voriconazole has become common for the management of aspergillosis and in our patients presented a high response rate to treatment.

A-153
INFECTIOUS AND THROMBOTIC COMPLICATIONS LINKED TO IMPLANTED PORT-A-CATH CENTRAL VENOUS DEVICES IN CHEMOTHERAPY OF MULTIPLE MYELOMA: A COHORT OF 142 PATIENTS

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Objectives: We aimed to evaluate the infectious and thrombotic complications of totally implanted devices, Port-a-Cath (PAC), used for chemotherapy in MM patients.

Material and method: Prospective observational study of MM patients treated with chemotherapy through PAC in our department (1995-2007). Antibiotic prophylaxis with cefazoline was prescribed before PAC implantation. The device was maintained indefinitely during treatment, unless complications requiring its removal occurred (infection, thrombosis or dysfunction). Primary thromboprophylaxis was not routinely prescribed. The diagnosis of PAC infection was based on in differential growth blood cultures taken from PAC versus peripheral vein, when PAC culture was positive two or more hours earlier than the peripheral culture, or a positive culture of exudate from the pocket was obtained. Associated thrombosis was diagnosed by ultrasound or computerised tomography scan. Upon diagnosis of PAC infection, systemic

antibiotherapy and antibiotic lock was prescribed and PAC maintained unless clinical deterioration of the patient or pocket infection occurred, making removal of the device necessary. Statistical methods: Fisher exact test, Student t, log-rank test, Kaplan-Meier survival tables and Cox regression multivariate binary logistic model.

Results: 155 implanted PAC in 142 patients (55% male and 45% female) were included for analysis. Median age was 67 years (27-84). Subtype of monoclonal immunoglobulin: G in 46.5%, A in 27.7%, and D or light chain in 25.8%. The median duration of each PAC was 20.9 months (0.5-108) and the median duration of chemotherapy by PAC 9 months (0.3-42). Twenty nine infections of PAC (27 bacteremia and 2 pocket infections) were detected in 25 patients (0.2/1,000 days). Coagulase negative Staphylococcus (CNS) (43.7%) was the most frequently isolated microorganism, followed by Gram negative rods (25%) and other Gram positive cocci (14.3%). Antibiotic lock along with systemic antibiotics was prescribed in 18 infections (62%), achieving the maintenance of the device in 17 (94%). PAC associated thrombosis was detected in three patients (0.02/1,000 days). The device was removed in 31 patients (20%): in 13 patients (8.3%) because of infection and in the remaining because of dysfunction or end of treatment. The assessment of prognostic variables only showed a significant association between longer duration of chemotherapy and risk of infection (Student t: 3.08; p = 0.002), and between infection and the risk of removal of the device (chi^2: 17.2, p = 0.00004).

Discussion: There are few references to the complications associated with totally implanted devices for chemotherapy in patients with multiple myeloma (MM). The necessity to maintain prolonged treatment may involve more frequent complications, particularly infections (0.2/1,000 days, in the usual references) and thrombosis (risk of 0.02 to 0.92/1,000 days). The usually poor condition of these patients makes it desirable to avoid surgical manipulations and maintain devices. Our observations indicate that prolonged use of PAC devices in these patients do not carry an increased risk of complications and that infectious complications can be usually controlled without removal of the devices.

Conclusions: The registered frequency of PAC infection and thrombosis in our patients is similar to that described in other clinical settings (i.e, non myeloma patients), as well as the aetiology of infections, being CNS the most frequently implied. Antibiotic lock was remarkably efficacious to avoid removal of PAC devices. Consequently, PAC devices appear to be safe in the chemotherapy of MM patients, without involving a higher risk of infection or thrombosis than that observed in different clinical settings, despite the usually longer time of use of the devices in these patients.

A-154
INFECTION DUE TO STRONGYLOIDES STERCORALIS IN HIV PATIENTS

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Objectives: Strongyloides stercoralis is a nematode parasite, which is endemic in tropical and subtropical regions. Distinctive characteristics of this parasite are its ability to persist and replicate within a host for decades and its potential to cause life-threatening infection in an immunocompromised host. The goals of this study were two fold: i) to determine the frequency of imported strongyloidiasis in HIV patients ii) to describe epidemiological, laboratorial and clinical features of imported strongyloidiasis in this group of patients.

Material and method: During the years 2008-2011 we conducted a prospective screening program of chronic strongyloidiasis in all HIV positive immigrant patients attending in Tropical Medicine Unit of Hospital Central de Asturias. Combined examination of three concentrated stool samples, culture in blood agar and ELISA for serum anti–S. stercoralis antibodies was used as screening. We considered that infection existed if the microscopic visualization of larvae in stool sample and/or the ELISA was positive. In positive patients was discarded the presence of other nematodes or filarias. We performed an ELISA for serum anti-HIV antibodies in all patients. Positive patients were confirmed by Western-Blot. Routine tests for determination of eosinophilia, CD4+ cell counts, and HIV load were performed simultaneously to serological studies. All positive patients were treated with ivermectin. All data were entered into a database and analyzed using SPSS 18.0 software package. Quantitative variables were analyzed with the Student t test or the Mann-Whitney test when appropriate. Qualitative variables were analyzed with the chi square test with the Yates correction or Fischer's exact test (2-tailed) when necessary. All p values were 2-sided and values of 0.05 or less were considered statistically significant.

Results: we screened 39 patients, 13 of them (36%) had a strongyloidiasis. No significant differences in sex and age were found between both groups. The most frequent countries of origin in patients with strongyloidiasis were: Equatorial Guinea (26%), Senegal (20%), Ecuador (13%), and Bolivia (7%). The average time in Spain was significantly higher in strongyloidiasis patients (1,164 [673] days vs 443 [715], p = 0.025). No significant differences between median CD4 cell count (388 [218] cells/mm^3 vs 378 [252]) and median viral load (275,163 [445,980] vs 529,933 [1,241,602] RNA viral/ml) were found All patients showed positive serological test and in two patients the microscopic visualization was positive. The countries of origin were: Equatorial Guinea (8 cases), Paraguay (4 cases) and Colombia (one case). The most frequent symptoms in positive patients were abdominal pain (2 cases), skin disease (1 case), and the rest were asymptomatic.

Conclusions: The presence of infection for S. stercolaris is frequent in HIV infection patients, especially whose from Equatorial Guinea, although without symptoms.. There is no relation with CD4 cell count or viral load. To prevent potentially fatal hyperinfection syndrome, it is necessary to carry out screening with several stool examinations and serologic testing in risk groups, especially in immigrant population, and in infected ones instituted the treatment.

A-155
A DESCRIPTIVE AND RETROSPECTIVE STUDY OF THE DISTRIBUTION OF HIV SUBTYPES IN AN INFECTIOUS DISEASES CONSULTATION

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Objectives: HIV is characterized by a high degree of genetic variability. Worldwide the predominant HIV-1 is classified into three groups, M responsible for current global epidemic, O and N. The group M includes 9 pure subtypes identified by the letters A, B, C, D, F, G, H, J, K and 43 recombinant forms. In Europe, subtype B is the most prevalent, but infection with non-B subtypes has become more frequent due to migratory flows from Africa and Asia. In 2000 a molecular epidemiological study in Portugal showed that subtype G has assumed a predominant position compared to other subtypes, constituting a unique case in Europe. Objective: Observational, descriptive and retrospective study of the distribution of HIV subtypes in an infectious diseases consultation.

Material and method: Consultation of individual data of 293 patients infected with HIV 1, followed in an outpatient clinic between 1996 and 2011 regarding the variable HIV-1 subtype, sex, age, nationality, country/origin of probable infection, way of transmission, stage at admission, time between admission and the initiation of treatment.

Results: We analyzed data from 293 patients with HIV-1, 225 males, mean age 42 years. Of these 32.4% were subtype B, 30.7% subtype G, 14% subtype C, 6.5% subtype F, 2.4% subtype A, 1% subtype D, recombinant forms representing 12.4%, being the most common BG (4.8%), AG (2.7%) and AE (1.7%). 80% of patients were born in Portugal, 2.7% in Brazil, 1.7% in Mozambique and less than 1% in other countries. The contagion occurred most likely in Portugal (93.2%). The transmission categories were heterosexual (49.5%), drug-addict (34.5%), homosexual (9.6%) and transfusion (0.7%). Of the 90 patients with subtype B, 49% were heterosexual, 24% drug-addict and 21% homosexual; of subtype G, 55.5% heterosexual, 40% drug-addict and 1% homosexual; and of the subtype C, 58.5% drug-addict, 32% heterosexual, 4.8% homosexual (chi-square, $p < 0.05$). At the time of diagnosis, 39.2% of patients were asymptomatic; the mean CD4 counts were 300/mm^3. Currently 74.1% of the patients are under treatment.

Conclusions: In our population we detected a predominance of subtype G that differentiates us from other European populations, which may be relevant to the infection course and in future treatment management.

A-156
NEUROLOGICAL SYMPTOMS IN INFECTIVE ENDOCARDITIS

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Objectives: Infective endocarditis (IE) debut may mimic different disease as neurological pathology. This diversity may complicate the diagnosis and delay treatment. Because of that, we decided to analyze the characteristics of EI with neurological symptoms that have been presented to our hospital.

Material and method: A prospective population-based observational study was conducted in Hospital Donostia. We collected all the IE cases diagnosed between March 2008 to April 2012. We reviewed cases which presented with neurological signs, defined as neurologic focality, depressed level of consciousness or a new headache. We present epidemiologic, etiologic and management data.

Results: In the period March 2008 to April 2012, 145 cases of IE were diagnosed according to modified Duke criteria. A total of 30 cases (20.68%) presented neurological symptoms. 19 men and 11 women. The patient´s mean age was 67 years (70 in global series). The distribution of the locations of IE was: 19 native valves (aortic: 7; mitral: 11; tricuspid: 1); 10 prosthetic valves (aortic:6; mitral: 3; tricuspid: 1); the location of IE remained uncertain in 1 patient. 1 patient with involvement of two valves and another, a valve and a device. Causative microorganisms were: 5 coagulasa negative Staphylococci; 11 MSSA and 1 MRSA (40%; in general series: 24.82%); 6 S. viridans; 1 S. pneumoniae; 2 S. bovis; 1 Enterococci; 1 L. monocytogenes; 1 C. parapsilosis.. Eventually, 1 patient had no etiologic agent identified. Cardiac surgery was performed in 10 patients (33.33%), 7 of whom were men (49.65% in global series). Median Euroescore was 32.08% (24.22% in global series). The mortality rate was 46.6% (14 patients) (19.31% in global series); in the 50% of them, the causative agent was MSSA or MRSA. The administered antibiotics were appropriated in all cases according to the IE management support group.

Conclusions: The presence of neurological symptoms may mimic the diagnosis of IE.-Some causative microorganisms, like MSSA or MRSA, are associated to neurological manifestations. In our series, the neurological signs and MSSA or MRSA are associated to a worse prognosis and increased mortality.

A-157
TRICHURIS TRICHURIA A COMMON CAUSE OF CHRONIC IRON DEFICIENCY ANEMIA IN IMMIGRANT ADULTS

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Objectives: Anaemia is a major global public health problem especially in developing countries, frequently due to iron deficiency. One of the principal risk factors for iron-deficiency anaemia are parasite infections such as hookworms (Necator americanus and Ancylostoma duodenale) and whipworms (Trichuris trichiura Therefore, the objectives of our study were to study the association between Trichuris infection and presence of anaemia in immigrant population.

Material and method: We retrospectively analyzed the characteristics of T. trichuria infection in 45 patients, who attended in the Tropical Medicine Unit of Hospital Universitario Central de Asturias, Spain, between 2007-2011. Examination of three concentrated stool samples was used as screening. Eosinophilia and anaemia in blood test were studied in all patients. Anaemia was defined as a hemoglobin level below 11 g/dL. All positive patients were treated with mebendazole.

Results: The study included 23 women and 22 men with an average age of 35 years. The mean time of permanence in Spain was 316 [489] days. The most frequent countries of origin were Equatorial Guinea (75.6%), Senegal (11%), Ecuador, Ivory Coast and Morocco (4.4% each), The most frequent symptoms were abdominal pain (31%), skin diseases (5%), diarrhea (5%), and anaemia (3%). Other parasites were Hookworm (18%), Strongyloides stercolaris (13.3%), Schistosomas spp and g. intestinalis (11% each), Ascaris lumbricoides (9%,) and Entamoeba histolytica (4.5%). Thirty patients have anaemia (mean 10.75 mg/dL [2]). HIV co-infection was present in 9% patients The presence of anaemia was significantly more frequent in HIV positive patients (3 vs 1 $p = 0.088$).All patients were treated with mebendazol and iron supplement, successfully.

Conclusions: Trichuris trichuria infection should be considered in all patients in endemic areas with chronic iron deficiency anemia and/or occult blood loss even in asymptomatic patients.

A-158
CHARACTERISTICS OF PATIENTS WITH NEUROCYSTICERCOSIS IN A TERCIARY HOSPITAL

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Objectives: The neurocysticercosis is an endemic parasitosis with a high prevalence in South and Central America. Recently, an increase in its prevalence has been described. The aim of this study is to describe the characteristic of these patients.

Material and method: The study population consisted of patients admitted to internal medicine or neurology for the last 6 years, diagnosed of neurocysticercosis by computerized scan (CT) and /or magnetic resonance imaging (MRI), to confirm the diagnosis and

identify the phase. We analyse age, gender, home country, recent travel, personal history, symptoms, CT and MRI findings, serological tests, treatments and follow up. Data were analysed with SSPS statistical programme, version 17.0. Quantitative variables were described as mean and standard deviation and frequencies for qualitative variables.

Results: A total of 23 patients were included, 15 (65.2%) female and 8 (34.8%) male. The mean age was 45.26 years old (24-91). All patients, except three patients, were from Central and South America: Ecuador 56.5%, other countries were Peru, Colombia and Bolivia. The onset symptom was headache in 10 patients (43.5%), with ocular alterations (13.4%), sensitive alterations (21.2%) or seizures (13.04%). In the electroencephalography, epileptic activity was found in 6 patients (26.1%). In the CT scan findings, the most frequent were: multiple calcified nodules (34.9%), and hypodensity contrast-enhancing lesions (21.7%) and perilesional edema in 9 patients (39.1%). In MRI findings, we observed vesicular stage (21.7%), enhancing nodular lesion (21.7%) and intraventricular cysts (13%). In the patients that a radiology test was performed in the follow up, calcific lesions were found in 9 patients (39.1%). None of the patients presented intestinal alterations. Serological test were positive in 8 patients (34.8%). Treatments more frequently prescribed were combination of prednisone and albendazole (30.4%) and dexamethasone and albendazole (21.7%). Antiepileptic drugs were needed in 7 patients (30.4%), carbamazepine was the most frequent used.

Discussion: The prevalence of this disease has increased for the last years in our country. It could be related with the high level of immigrated population, as it is more frequent in them. All the patients except one were foreign people. The main symptom found was the headache, with or without ocular symptoms (photophobia, diplopia) partial or generalised seizures, sensitive alterations or motor alterations. They are similar findings to previous researches. All these symptoms were related to the larva´s phase, location and the number of parasites.

Conclusions: The neurocysticercosis' prevalence has risen in our country related to the increase of population from endemic countries. There were no differences in clinical events or evolution respect to cases described in endemic zones. Headache was the most frequent symptom, sometimes with another neurological symptoms. It could be an under-diagnosed disease so many of the patients are oligosymptomatic. This entity should be rule out in immigrant patients with neurological symptoms.

A-159
POSITIVES BLOOD CULTURES

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Objectives: The aim of our study was to find out how bacteremia is managed in our hospital, using epidemiological and ethiological data, in order to assess the appropriateness of antibiotic treatment.

Material and method: Data collection was performed retrospectively during 2010 being 66.1% in spring; 19.1% in summer, 10.2% autumn and 3.4% winter. It should be noted also that were analyzed as defining factors of bacteraemia associated with health care the presence of any of the following factors: Home-based Hospital in the last month, Residence in social health center, urinary catheter; wounds in the 30 days prior to admission; chronic haemodialysis or peritoneal dialysis; chemotherapy administration 30 days prior income in acute-care unit 2 or more days in the 90 days preceding. The assessment of the severity of the bacteremia was performed according to the criteria published by up to date 2012. The empiric antibiotic treatment was considered successful when the organism isolated in vitro was sensitive to the antibiotic. The analysis of the data was carried out through the SPSS program 1.8.

Results: We collected a total of 118 positive blood cultures (66.1% spring, from a sample of patients with a mean age of 71.07 years; of which 43 (36.4%) were positive for a germ which was interpretated as a contaminant. In the 75 remaining, the most frequent source as the origin of bacteremia was the urinary (29.3%), followed by digestive (20%), unkown source (14.7%), respiratory (13.3%) and a group known as miscellaneous (wound surgical, catheter...; 22.7%). The most common bacteremia was the comunitary one (49.3%), followed by health care associated (33.3%), and last one, nosocomial (17.3%). The bacteria most frequently isolated was Gram-positive cocci (40%), followed by enterobacteria (36%) and polymicrobial (10.7%). Sepsis was the most frequent clinical manifestation (45.3%), followed by simple bacteremia (25.3%), septic shock (14.7%) and severe sepsis (12%) The overall mortality was 16.2%, being higher in the group of nosocomial (30.6%), followed by health care (20.83%) and communitary (8.1%). Analyzing mortality according to the source we find catheter (50%), followed by unknown (45.45%), urinary (14.28%), digestive (6.6%), and respiratory (0%) One of every three patients who received empirical antibiotic therapy is not appropriate was what meant double the percentage of mortality. Also when the antibiotherapy was adequate there was a statistically significant decrease of 8 days of average stay.

Conclusions: In our environment, the most common type of bacteremia is communitary. It's significant, the high prevalence of Gram-positive cocci among the etiologic agents, being urinary the most frequent source Highlights the high proportion of bacteremia associated with health care causing a significantly mortality, perhaps influenced of being elderly people. In our hospital the lower mortality occurs when origin of bacteraemia is respiratory.

A-160
TOSCANA VIRUS MENINGITIS IN THE NORTH OF THE GRANADA PROVINCE(SPAIN), OVER THE LAST 5 YEARS

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Objectives: In the north of the Granada province, exists a swamp area (Negratín), habitat of the Phlebotomus spp sandflies; transmitter vector of the Toscana virus, which can cause aseptic meningitis and meningoencephalitis. We analyzed the clinical and epidemiological data of 4 cases of meningitis due to Toscana virus diagnosed in our hospital over the last 5 years.

Material and method: For 5 years, we have consistently included PCR determination for Toscana virus, in the processing of all cerebrospinal fluid samples of patients with suspected aseptic and/or lymphocytic meningitis, among the other usual determinations. 78 cerebrospinal fluid samples of patients with suspected aseptic/lymphocytic meningitis were processed for virus isolation in cell culture. The medical records of patients with Toscana virus isolation were analyzed.

Results: Toscana virus was isolated in cerebrospinal fluid of 4 patients from a total of 78 (5.13% of viral isolates). The first case was diagnosed in August 2008 and the last in July 2011. The mean age was 38.75 years, range 29-49 years.3 of the 4 patients lives in villages adjacent to the swamp. One of the patients had direct epidemiological data regarding the habitat of the vector, the sandfly, as he works on the Negratin swamp beach. The predominant

symptoms were headache, 4/4, associated with neck stiffness in 3/4, mild fever; interval Temperature: 37.1 ºC-38.5 ºC and nausea-vomiting 2/4. All cases occurred in the summer months between June and August, with predominance in the month of August, 2/4. The outcome was favorable in all cases, with an average hospital stay of 7.25 days; range 4 to 11 days.

Discussion: Toscana virus receives its name due to the area where it was first isolated; the Italian region of Toscana. Even though, it has been described to affect all the Mediterranean area, representing an important emerging pathogen. In the interior zone of the north of the Granada province, there is a big sandy swamp area (Negratín), much like the Mediterranean, where the Sandfly has settled down. Our study closely resembles previous studies of Toscana virus meningitis in Spain (José María Navarro, Concepción Fernández-Roldán, Mercedes Pérez-Ruiz, Sara Sanbonmatsu, Manuel de la Rosa y M. Paz Sánchez-Seco. Meningitis por el virus Toscana en España: descripción de 17 casos. Med Clin (Barc). 2004;122(11):420-2; Sanbonmatsu-Gámez S, Pérez-Ruiz M, Collao X, Sánchez-Seco MP, Morillas-Márquez F, de la Rosa-Fraile M, et al. Toscana virus in Spain. Emerg Infect Dis. 2005 Nov) which enforces our results, despite the small number of cases.

Conclusions: As a emerging pathogen, Toscana virus should be considered among the causative agents of lymphocytic meningitis in the north of the Granada province, especially in the summer months, due to the presence of the Negratín swamp, habitat of the Phlebotomus spp sandflies.

A-161
COMORBIDITY IN HIV-INFECTED PATIENTS

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Objectives: To identify the comorbidities that HIV patients present nowdays. To evaluate the usefulness of a nursering guiated unit for it.

Material and method: Systematic pilot study in HIV patients who are controlled as outpatient. We collected the followinginformation: blood pressure (BP), smoking, alcohol and other drugs, methadone program membership, BMI, diabetes, dyslipidemia, hepatitis coinfection, history suggestive of COPD, other diagnoses, received treatments. We gave outpatients the opportunity to be followed and to be advised in nursing unit. Data collection by nursering with medical support.

Results: In the period June 2011 to December 2011 218 patients were evaluated. Baseline characteristics: 126 men, 92 women. The mean age was 48 years (range 21-81). Way of acquisition of HIV: Substance Abuse IV: 51.8% (15% in the methadone program), 25.7% heterosexual, MSM 16%, others or unknown 6.4%. All of them on HAART, most good immune status (CD4 693/µl average, only 4 patients with CD4 < 200) and a good virological control (192 -88.1% -, 18 -8.2% -; 8 to 3.7% - with viral load < 20; between 20 and 50, between 50 and 400 respectively). Comorbidity: Co-infection with HCV, 120 patients (55%), HBV 3 (1.4%), both 4 (1.83%). Previous cardiovascular event in 17 patients (7.8%) with 15 episodes of ischemic heart disease, 1 stroke and 1 intermittent claudication. Concerning toxic habits: 108 (49.5%) patients were active smokers with average consumption of 14 packs/year, and 28 (12.8%) were former smokers. 31% of men and 19.6% of women have an excessive alcohol consume (more than 60 g/day and 40 g/day, 39 men and 18 women respectively). Recognize marijuana usually 24 (11%). Have been detected 21 patients (9.63%) with high BP (≥ 140/90, 3 times); Was unknown in 14. Mean body mass index: 23.52 (range: 16.1 to 37.93). In routine analysis, 7 patients (3.21%) presented altered fasting glucose (110-125 mg/dl). 115 patients had dyslipidemia (52.75%), being in treatment and 86 (74.78%) while the 84.88% of them continued to have high levels. Cardiovascular risk by Framingham score: 20% in 6 patients, between 10-20% in 54. Met criteria for chronic bronchitis 8 patients being known only 2 of the 6 patients.Patients taking HAART treatments other than to 104, with a mean of 1.5 tablets (range of 1-15 tablets).

Conclusions: HIV patients have significant comorbidity, at least in part, may go unnoticed. This pilot study shows that a structured query can be an excellent tool for identifying comorbidity. It provides the basis for the design of a larger study, which also analyze the involved factors and potential early interventions to improve the prognosis of future patients.

A-162
BONE MINERALIZATION DENSITY IN HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTED PATIENTS

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Objectives: Long-term complications of HIV, such as metabolic complications cardiovascular disease and bone alterations have increased as a result of the improvement in high activity antiretroviral therapy (HAART) and longer survival times. Bone alterations, osteopenia and osteoporosis, are common in HIV-1-infected individuals. Osteoporosis is common in HIV-infected with prevalence estimates approximately 3-fold higher than non–HIV-infected individuals. Mechanisms of alteration of bone turnover are still unclear and it is thought to be multifactorial. The aims of our study were to supply some information on bone loss and to determine the incidence of bone alterations in HIV infected patients in our hospital.

Material and method: Study populations and evaluations: It is a retrospective observational study. A total of 118 HIV-infected subjects were analysed between December 2009 and August 2010. A Dual-Energy X-ray Absorptiometry (DEXA) was performed to them, asked by their habitual specialists. Epidemiological data, risk factor for osteopenia and osteoporosis, underlying diseases, typical HIV-related variables (viral load, CD4 cells, High active antiretroviral treatment (HAART) history…), and other treatments were evaluated. -Statistics analysis: Data were analysed with SSPS statistical programme, version 9.0. Quantitative variables were described as mean and standard deviation and median and interquartile range, according their distribution. Qualitative variables were considered as absolute and relatives frequencies.

Results: A total of 118 patients were included in the analysis, 61 (51.7%) female and 57 (48.3%) male. The mean age was 47.5 years old. Co-infection with hepatitis C virus (HCV) were detected in 54 patients (45.6%) and with chronic hepatitis B virus (HBV) was detected in 32 patients (27.1%). The 89.3% of the patients were Caucasian. We analyse risk factor for osteoporosis such as methadone (93%), smoker (44.1%), active alcoholism (5.7%), menopause (26.1%). Data relative to HIV infection: media time from the diagnosis 14.16 ± 7.45 years, AIDS event (46.6%), mean of nadir CD4 cells 144, mean CD4 cells 559, non detectable viral load (80.5%). HAART treatments: R5 co-receptor inhibitor 3.4%, fusion inhibitor 5.9%, integrase inhibitor 8.5%, protease inhibitor 49.2%, booster protease inhibitor 65.3%, no analogous retro-transcriptase inverse 62.7%, analogous retro-transcriptase inverse 94.9%, disoproxil fumarato tenofovir 58.5%. Bone Mineral density was normal in 16.1%, osteopenia was found 46.6% and osteoporosis in 37.3%. When analyse bone density separately in HIV patients and coinfected HCV patients, osteopenia was more frequent in monoinfected patients (54.7%) and osteoporosis in coinfected patients (46.3%).

Discussion: Presence of altered bone mineral density is frequent in HIV patients. There are many factors related to bone density loss, some of them are more frequently described in HIV patients, related to its treatment and secondary comorbidities. No sufficient evidence has been described to attribute some role to the HIV infection, although more researches are needed. Many others factors have been associated making difficult to prevent the development of new cases.

Conclusions: Bone mineral density alterations are frequently described in HIV patients with or without associated hepatopathy. Osteopenia is more frequently found in HIV patients while osteoporosis is more frequent in HCV co-infected patients. The differences in the bone density we described could be related to multiple risk factors. HIV and its treatments and its secondary comorbidities could be related with bone mineral density alterations.

A-163
FEATURES OF HIP PROSTHESIS INFECTIONS AT ZAMORA'S HEALTH CARE COMPLEX. YEARS 2008-2011

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Objectives: To know the number of cases diagnosed of hip prosthesis infections between years 2008-2011, together with their features, causal organism and therapy as well as evolution after diagnosis.

Material and method: Descriptive, observational and retrospective assessment of 34 patients diagnosed of hip prosthesis infection during the period between years 2008 thru 2011. Clinical records of patients with that diagnosis were reviewed, and the following parameters were assessed: gender, age, kind of infection, model of prosthesis implanted, main symptom at diagnosis, prevalence of infections according to different years assessed, cultures obtained and organisms found, therapies adopted and their time length as well as follow-up in an Internal Medicine outpatient setting after discharge.

Results: From a total amount of 34 cases documented for those years assessed, there were six intramedullar nails and 28 complete hip prosthesis. Slight rise in number of women affected (53%), distribution according to localization was equal for both sides, mean age at presentation was 77.5 years, 70% of cases represented late infections, pain was the main symptom in 47% of cases and distant illness was present in 14% of individuals recruited; cultures became positive in 29 patients with Staphylococcus aureus as organism most frequently found, in 14 cases. 23% of infections (eight patients) presented multi-drug resistant germs. Prosthesis replacement was performed in 38% of patients. Rifampicin was the antibiotic most frequently used (82% of cases) and mean length of therapy was 23.7 weeks with mode of 24 weeks. After discharge the follow-up was done in an Internal Medicine outpatient setting in 68% of patients, while three individuals died during inpatient therapy.

Discussion: Prosthesis infections represent one of chief and feared complications at Orthopedic Surgery and Traumatology Departments due to their economical impact as well as surgery failure leading to sequels and therapies undergone by patients. According to several assessments a crude hip prosthesis infection rate around 4% is estimated, and a lower percentage is observed in our series standing at 1.8%. On the other hand, different series report organism identified in about 50% of cases, rising up to 85% in our Institution, thus leading to better match of antibiotic therapy trying to optimize available resources. Our series shows a higher number of late-onset prosthesis infections, while other reports have diagnosis of infection predominantly during the first month after prosthesis implantation.

Conclusions: Lower crude hip prosthesis infection rate in our series. Pain as main warning symptom. Staphylococcus aureus was the organism most frequently found at positive cultures. Significant rise of multi-drug resistant microorganisms. Rifampicin-based antibiotic regimens were mostly used. Significant percentage of patients with infected prosthesis material removed.

A-164
FEATURES OF KNEE PROSTHESIS INFECTIONS AT ZAMORA'S HEALTH CARE COMPLEX. YEARS 2008-2011

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Objectives: To know the number of cases diagnosed of knee prosthesis infections between years 2008-2011, together with their features, causal organism and therapy as well as evolution after diagnosis.

Material and method: Descriptive, observational and retrospective assessment of 26 patients diagnosed of knee prosthesis infection during the period between years 2008 thru 2011. Clinical records of patients with that diagnosis were reviewed, and the following parameters were assessed: gender, age, kind of infection, model of prosthesis implanted, main sign at diagnosis, prevalence of infections according to different years assessed, cultures obtained and organisms found, therapies adopted and their time length as well as follow-up in an Internal Medicine outpatient setting after discharge.

Results: From a total amount of 26 cases documented for those years assessed, a slight rise was present in number of women affected (69%), distribution according to localization was equal for both sides, mean age at presentation was 72.4 years, 69% of cases represented late infections, exudate was the main sign in 50% of cases; cultures became positive in 25 patients with Staphylococcus epidermidis as organism most frequently found, in 54% of cases. No multi-drug resistant germs were isolated. Prosthesis replacement was performed in 50% of patients. Rifampicin was the antibiotic most frequently used (84% of cases) and mean length of therapy was 24.5 weeks with mode of 24 weeks. After discharge the follow-up was done in an Internal Medicine outpatient setting in 77% of patients.

Discussion: Prosthesis infections represent one of chief and feared complications at Orthopedic Surgery and Traumatology Departments due to their economical impact as well as surgery failure leading to sequels and therapies undergone by patients. According to several assessments a crude knee prosthesis infection rate around 2.1% is estimated, and a higher percentage is observed in our series standing at 2.3%. On the other hand, different series report organism identified in about 40% of cases, rising up to 96% in our Institution. Our series shows a higher number of late-onset prosthesis infections, while other reports have diagnosis of infection predominantly during the first month after prosthesis implantation.

Conclusions: Slightly higher crude knee prosthesis infection rate in our series. Exudate at surgical wound as main warning sign. Staphylococcus epidermidis was the organism most frequently found at positive cultures. No multi-drug resistant microorganisms isolated in our series. Rifampicin-based antibiotic regimens were mostly used. Significant percentage of patients with infected prosthesis material removed.

A-165
PNEUMOCYSTIS JIROVECII COLONIZATION IN LUNG TRANSPLANT RECIPIENTS WITH CYSTIC FIBROSIS

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Objectives: Pneumocystis jirovecii is an atypical opportunistic fungus with lung tropism and worldwide distribution that causes pneumonia (PcP) in immunosuppressed individuals. The development of sensitive molecular techniques has led to the recognition of a colonization or carrier state of P. jirovecii, in which low levels of the organism are detected in persons who do not have PcP. Pneumocystis colonization has been described in patients with various lung diseases, including individuals with cystic fibrosis who have prevalence ranges from 1.3% to 21.6%. Cystic fibrosis is one of the most common indications for lung transplantation worldwide and certainly the most common indication for all pediatric lung transplants and for bilateral lung transplantation irrespective of age. P. jirovecii is a major cause of fatal pneumonia in immunosuppressed lung transplant patients. However, there is no data about P. jirovecii colonization in lung transplant recipients with cystic fibrosis. The aim of this study was to analyze the frequency and dynamic evolution of P. jirovecii colonization among patients with Cystic fibrosis after lung transplantation.

Material and method: The study included 11 cases (3 males, 8 females; median age 21.9 ± 6.9 years, range 13–32 years) who attended a specialized Cystic fibrosis unit. All of them received chemoprophylaxis with trimethoprim-sulfamethoxazole. Patients were followed for a 1-year period and underwent a clinical and biological examination every 6 months in conjunction with use of a standardized questionnaire. A patient colonized with P. jirovecii was defined as an individual, with no symptoms or thorax radiography signs of PcP, whose respiratory specimen contained P. jirovecii DNA detectable by nested PCR.

Results: At baseline, P. jirovecii colonization was detected in five (45.5%) patients, but everyone except for one were colonized sometime during the follow-up period. Molecular identification of P. jirovecii polymorphisms in the mt LSU rRNA gene was determined by direct sequencing. Three different genotypes were detected: 10% genotype 1 (85C/248C); 20% genotype 2 (85A/248C) and 70% genotype 3 (85T/248C). Plasma samples from patients were assayed for β-D-glucan, with standard assay reference values defining > 80 pg/mL as positive for PcP. Median β-D-glucan was 87.6 ± 37.7 pg/mL in P. jirovecii colonized patients, compared with 80 ± 29.3 pg/mL in patients without colonization (p = 0.59).

Conclusions: Our results demonstrate that P. jirovecii colonization is common and may appear at any time after lung transplantation in patients with Cystic fibrosis despite use of chemoprophylaxis. Serum level of β-D-glucan is not useful for detecting P. jirovecii colonization in cystic fibrosis patients. Therefore, frequent monitoring of these patients using molecular techniques is thus necessary for detecting P. jirovecii colonization.

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A-166
LEVEL OF PARASITEMIA, COMPLICATIONS AND COINFECTIONS OF MALARIA IN AREA 3 OF MADRID

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Objectives: Malaria is the most important parasitic disease in the world for its morbidity and mortality. In the last 20 years there has been an increase in the diagnosis of imported malaria in developed countries due to migration and travelling. The aim of this report is to analyse the level of parasitemia, the rates of complicated malaria and the most frequent coinfections in patients diagnosed of malaria in our center over the past 5 years.

Material and method: The Príncipe de Asturias University Hospital is located in Alcalá de Henares (Madrid) and has 600 beds. It provides health service to 363.809 inhabitants with a high proportion of immigrants (20%) particularly from Sub-Saharan area. All medical reports with the diagnosis of malaria from January 2006 to December 2011 were reviewed retrospectively. Epidemiological, microbiological and clinical data were collected and put into an Excel database. Statistical analyses were performed.

Results: Between 2006 and 2011, 164 cases of malaria were diagnosed. The mean age was 28.6 years old, 37 were younger than fifteen. 97% were of black ethnicity. 44.5% were females and 12 pregnants. Species distribution was P. falciparum 86.6%, P. ovale 7.9% and mixed infection 3.6%. Low parasitemia was the most frequent (Table 1). As expected by the origin of the patients, coinfections were found (Table 2). The rate of severe malaria related complications was low: 5 severe anemia with Hb < 7 g/l

Table 1 (A-166). Parasitemia

	N	%
Only PCR positive	26	15.9
Low (< 1% or < 20,000)	94	57.3
Moderate (1-5% or 20-50,000)	27	16.5
High (> 5% or > 50,000)	17	10.4

Table 2 (A-166). Coinfections

	Positives	Total tested	%
HIV	19	88	21
HCV	5	54	9.2
HBV	12	74	16.2
Filariasis	11		
Intestinal parasites	10		

(3%), 2 ARDS (1.2%) and 1 abortion in an eight-week pregnant woman (0.6%). 2 HIV patients died from opportunistic infections not related with malaria. The treatment of choice was atovaquone-proguanil (55.5%) followed by the combination of quinine and clindamycin (13.4%).

Discussion: P. falciparum infection with low parasitemia in young African patients remains the main feature in our sample, similar to our previous experience and the reports from other centers in our country. Our review shows a very significant rate of co-infection with HIV (21%). Also stands out other co-infections such as HBV (16.2%) and HCV (9.2%), filariasis and intestinal parasites. The malaria related complication rate was low (4.8%). The main causes were severe anemia and ADRS and there were no deaths related with malaria.

A-167
ACTINOMYCOSIS. RETROSPECTIVE STUDY IN THE TOLEDO HOSPITAL COMPLEX

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Objectives: Clinical characterization of patients diagnosed with actinomycosis in the last 10 years at the Toledo Hospital Complex.

Material and method: Patients were identified by searching computer databases in the patient record and the Pathology Service of our center, using the term "actinomycosis and/or actinomyces" during the period from January 1, 2002 to the December 31, 2011. The diagnostic criteria were microbiological and/or histological, in clinical settings supported. We performed retrospective analysis of epidemiological, clinical and evolution data.

Results: 12 patients. Sex: 8 men and 4 women. Mean age 59 years (42-79 years). Factors predisposing: cancer (2), chronic alcoholism (2), COPD (2), DM (1), HIV infection (1), malnutrition (1), previous surgery (1), none (2). Clinical forms: 6 oral-cervicofacial (1 chronic dacryocystitis, 2 nasal, 1 chronic sinusitis, 1 pharynx, 1 mandibular osteomyelitis), 3 thoracic (2 bronchial stenosis, 1 pulmonary abscess), 2 abdominal (1 esophageal, 1 gastric) and 1 CNS (brain abscess). Histology was positive in all cases, 7 surgical specimens and 5 endoscopic biopsy (3 bronchoscopy and 2 gastroscopy), the culture was performed at 6, being in all negative. 10 patients received antibiotic treatment (6 intravenously and orally 4) and surgery was performed in 7 patients. Outcome was assessable in all cases.

Discussion: The genus Actinomyces is formed by Gram+ anaerobic filamentous bacteria that colonize mouth, colon and vagina. Are less virulent and cause disease only when altering mucosal barriers. Actinomycosis induce a chronic, insidious and slowly progressive, suppurative and granulomatous inflammation with formation of abscesses and fistulas with typical sulfur granules. Actinomycosis is a rare and simulating disease usually not taken into account, which affects delays in diagnosis and need for surgery. Our series is consistent with the literature in peak-incidence in the mid-decades and the predominance of males. Most patients have predisposing factors. Also most common sites are the oral-cervicofacial and digestive, although in our series are represented uncommon sites (brain abscess) and rare (gastric). The culture is achieved in a minority of cases, due to be nutritionally demanding and require strict anaerobic cultures affected by previous antimicrobial therapy. Our series there were no positive culture. Histology is the most useful diagnostic method in our series all cases. It is generally recommended antibiotic prolonged therapy at high doses, individualized to penicillin and in some cases in combination with surgery. In our series 2 patients were treated with surgery alone and other 5 with surgery and antibiotics. The response was positive in all cases.

Conclusions: 1. Actinomycosis remains a challenge for the skilled clinician, since most cases are diagnosed after surgery. 2. It should be suspected in patients with predisposing factors, disruption of mucosal barriers, chronic course, presence of tumors and refractory or recurrent infections. 3. Histology is still the most useful test for diagnosis. 4. Treatment of choice remains penicillin, with high doses for a prolonged time, with good response, requiring surgery on occasion.

A-168
LACTATE IN CEREBROSPINAL FLUID. IS IT A GOOD TEST FOR DIAGNOSING ACUTE BACTERIAL MENINGITIS?

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Objectives: To study whether there are significant differences between the values of lactate in the CSF of bacterial meningitis, lymphocytic (viral and aseptic) and noninfectious CNS processes and establish a cutoff point that would serve to differentiate bacterial meningitis from aseptic or viral meningitis.

Material and method: Design: Cross-sectional study. We included lumbar punctures performed last year (2011) at our Hospital. Biochemical and microbiological data were studied. Lactate was assessed in people with abnormal CSF. The final clinical diagnosis when the patients were discharged from the Hospital was the gold standard. Patients who were taking antibiotics before lumbar puncture were analyzed. We assessed sensitivity, specificity, and positive and negative likelihood ratios.

Results: Three hundred and five lumbar punctures were made in 2011 at our Hospital. 29.18% (89) were pathological (more than 6 cells in the CSF cell count). Twenty six of these (29.21%) were associated with acute bacterial meningitis, 32 (35.95%) were non-infectious processes of the CNS. We excluded in the analysis 31 (34.83%) lumbar punctures performed in children under 5 years old. The median age was 49 (IQR 31-77) and 50% were men. We found 8 acute bacterial meningitis, 17 viral meningitis and 33 non-infectious CNS disorders. The median lactate value was 2.2 in viral meningitis, 7.5 in bacterial meningitis and 2.3 in other SNC disorders. With a cutoff of 4.4 mmol/L sensitivity and specificity was 100% to differentiate bacterial from viral meningitis. With a cutoff of 4.4 mmol/L, sensitivity was 100% and specificity was 93% to discriminate bacterial meningitis from viral or others CNS disorders. Positive likelihood ratio was 11.5 and negative likelihood ratio was < 0.0001. We have to point out that 6 out of 8 people with acute bacterial meningitis had been administered antibiotics before the lumbar puncture. The lactate indicates the likelihood of presenting a bacterial meningitis (OR: 4.22; CL95%: 1.56-11.44; p = 0.005).

Discussion: Lactate in CSF can be helpful in the diagnosis of bacterial meningitis. The 4.4 mmol/L cutoff helps to avoid using antibiotics in patients with virtually no possibility of presenting bacterial meningitis. However, our study has a very small sample size and the confidence level of the sensitivity and specificity is wide. Some studies suggest that lactate is affected by certain processes such as subarachnoid hemorrhage, tumors, seizures and generally any condition causing cerebral anoxia.

Conclusions: Lactate is elevated in patients with bacterial meningitis. The proposed cutoff point (4.4 mmol/L) could help differentiate bacterial meningitis from viral meningitis or other processes affecting the CNS (bleeding, seizures, tumors). Prospective studies with larger sample sizes are needed to incorporate this test into clinical practice.

A-169
NOCARDIOSIS. EXPERIENCE AT A TERCIARY CENTER

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Objectives: Nocardiosis is an uncommon infection caused by the genus Nocardia, which has increased in the last years. The principal outcome of this study was to investigate the prevalence of this infection in our hospital and the main characteristics of the patients and also the prevalence in immunocompetents.

Material and method: We retrospectively reviewed all the cases of Nocardiosis diagnosed at Hospital Universitario La Paz in Madrid between January 2010 and January 2012. The following clinical data were collected: age, sex, diabetes mellitus, alcoholism, chronic obstructive pulmonary disease, as well as tumoral disease, immunosuppressive therapy (including corticoids), concomitant infections (TB, HIV, etc.) and organ transplantation. Other data were the Nocardia species, the clinical manifestations, the diagnosis method, the therapy and its duration and the possibility of a disseminated infection.

Results: In our study fourteen patients with Nocardiosis were diagnosed. Five of them had several infections by different Nocardia species. Five different species were isolated, being the most frequent the Nocardia farcinica (42.8%). A total of eleven (78.6%) were male and only one was immunocompetent. Out of the thirteen immunocompromised patients eleven (84.6%) were treated with corticoids (inhale 9/11 or systemic 2/11), eight (61.5%) had an oncologic or hematologic disease, one was a renal transplant recipient and one was HIV-positive. The most common presentation is pulmonary and skin disease, so the main diagnosis was made by the isolation of Nocardia in the sputum culture, the bronchoalveolar lavage, the bronchoalveolar aspiration and the skin biopsy. Only eight (57.1%) patients were treated: seven with trimethoprim-sulfametoxazole for six months and one with meropenem during ten days. The rest of the cases were assumed as colonized and did not receive any kind of treatment. No disseminated infection was detected although it was only studied in nine cases. More than 80% presented and improvement with infection resolution and only two patients died (renal carcinoma progression and respiratory sepsis).

Discussion: Nocardiosis is an uncommon infection caused by gram-positive bacteria from the anaerobic actinomycetes in the genus Nocardia. At least 33 species cause disease in humans but the most common is N. farcinica (as it can be seen in our study), being as well the most virulent and the most resistant to antimicrobials. It has been regarded as an opportunistic infection even though approximately one-third of the patients are immunocompetent. In this review more than 90% of the patients were immunocompromised. It is characterized by being a disseminated infection affecting specially the lung, the skin and the central nervous system with a tendency to relapse and progress despite appropriate therapy and with a predomination in male hosts. In our study relapse was observed in five patients, although in some cases the reinfection was produced by different species. The susceptibility varies among different species and areas with a high susceptibility to cotrimoxazole in our environment, used as the treatment of choice, as it can be seen in this study.

Conclusions: Despite the fact that Nocardiosis is not frequent, the number of cases detected has been sufficient to make us interested. The majority of patients are immunosuppressed, considering inhaled corticoid therapy as an important risk factor that contributes to the pulmonary infection (the most frequent in our hospital). We have notice the existence of relapse and infection by different species of Nocardia in the same patient; that is considered as colonization in one-third of the cases. No cases of disseminated infection have been detected, although it has been only studied in 60% of the patients. This might be due to lack of knowledge or because it has been considered as a non-infective disease. The standard therapy in our environment is cotrimoxazole with great results.

A-170
REVIEW OF CASES OF INFECTIOUS SPONDYLODISCITIS DIAGNOSED BETWEEN 2004 AND 2010 IN A TERTIARY CARE CENTER

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Objectives: To analyze the epidemiological and microbiological characteristics of infectious spondylodiscitis in a tertiary care center To evaluate the diagnostic and therapeutic management of infectious spondylodiscitis in our unit.

Material and method: We reviewed a retrospective cohort including all infectious spondylodiscitis assessed in the Infectious Diseases Unit of our hospital between 2004 and 2010. We analyze their demographic, microbiological, diagnostic and therapeutic characteristics and their clinical evolution.

Results: We report 59 cases of infectious spondylodiscitis diagnosed between 2004 and 2010; 59.3% were male, with a median age of 66 years. The diagnosis from the onset of symptoms was delayed a median of 34 days (0-802 days). The major clinical manifestation was pain (96.6%) whereas 66.1% of the patients had fever and 27.1% of them neurological involvement. In 45.8% of cases the location was lumbar. The most probably spread of infection was hematogenous in 49.2%, post-surgery in 15.3%, contiguous spread in 3.4% and unknown in the remaining 32.2% of cases. For the microbiological diagnosis, blood cultures were obtained in 42 of the 59 cases (57.1% were positives), but biopsy was required in most cases (needle biopsy by CT guidance in 29 cases and open biopsy in 22 patients, from whom culture were positive respectively in 41.4% and 72.7%). Gram positive bacteria were the most frequently infecting organism (45.8% of cases, mainly Staphylococcus aureus) while 10.2% of cases were secondary to Gram negative infection, 8.5% were tuberculous spondylodiscitis, 8.5% were fungal infections and in the remaining 28.8% no microbiological diagnosis was reached. Antituberculous therapy was administered in 18 of the 59 cases, although there were only 5 confirmed cases of tuberculous spondylodiscitis. The median duration of treatment was globally 120 days (23-616), and 77 (36-371) excluding cases in which antituberculous treatment was administrated. Surgery was necessary in 49.2% of patients, with diagnostic or therapeutic purpose. Regarding the prognosis, 30.5% recovered without sequelae, residual symptoms occurred in 49.1% of cases, whereas 20.1% died.

Conclusions: Infectious spondylodiscitis it´s a severe disease which is frequently diagnosed late and requires long treatment. Microbiological diagnosis is often difficult; in our study, we reached it in 71.2% of cases. The long term outcome is poor, with functional sequelae and high mortality.

A-171
CLOSTRIDIUM DIFICCILE INFECTION. DESCRIPTIVE STUDY IN A SECONDARY HOSPITAL

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Objectives: Our aim was to compare the risk factors for nosocomial clostridium infection in our hospital with the ones that had been published in other series including last reviews.

Material and method: We analyzed all patients admitted at San Cecilio Universitary Hospital in the last year, including admissions in medical and surgical hospitalization units from January 2011 to January 2012 and to whom Clostridium difficcile toxins had been analyzed in faeces. We included all patients with one positive outcome in the group of infected even though previous results had been negative. We excluded results from external office request. We used faeces samples for investigation of clostridium A and B toxins. And we analyzed results with SPSS 17.0 program.

Results: We analyzed a total of 149 patients including positive and negative outcomes. 13 of them had positive results, for this group the average age was 65, up to 85.7% had been treated with a proton pump inhibitor, specifically with omeprazol. 76, 9% of these patients had been under antibiotic therapy, 53, 8% of them with previous use and 23, 1% were under this treatment by the time clostridium infection was confirmed. When analyzing the antibiotic used, b-lactamics were the most popular for 40% of the patients undergoing antibiotic treatment, followed by quinolones and meropenem (30%). 23.1% had parenteral nutrition and none had undergo enterogastric surgery. 7.7% had a diagnosis of cancer and all of these were receiving quimiotherapy.

Conclusions: Comparing the obtained results with the ones that have been recently published, we have found relation between the risk factors previously described and the ones presents in our group. We would like to underline the close relation between clostridium infection and proton pump inhibitor chronic use. We feel that further studies with a bigger sample will be needed.

A-172
EXTRAPULMONARY TUBERCULOSIS DIAGNOSED BY BIOPSY IN THE PAST 11 YEARS AT THE COMPLEJO HOSPITALARIO DE NAVARRA (CHN) - SECTION A

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Objectives: 1. Descriptive analysis of patients diagnosed with extrapulmonary tuberculosis (TB) by biopsy in the last 11years in the Department of Internal Medicine (IM). 2. Comparative study on patients diagnosed with extrapulmonary tuberculosis in other hospital services.

Material and method: Retrospective study which reviewed the medical records of patients diagnosed by biopsy of extrapulmonary tuberculosis in the CHN - Section A. They were collected demographic variables, biopsy report, Mantoux test, chest radiograph, clinical manifestation, treatment, risk factors, microbiological analysis of the simple from the hospital service that makes the diagnosis.

Results: They were obtained 10 cases of extrapulmonary tuberculosis diagnosed by biopsy in Internal Medicine. The mean age at diagnosis was 60.5 years with 70% female. Only one patient was of foreign origin (Angola). The reason for consultation was for a study of adenopathies in 80% of patients, whit cervical location in 60%. In all cases the biopsy report described caseous necrosis tuberculoid type granuloma with or without Langerhans cells, showing acid-fast bacilli with Zhiel-Nielsen technique in 5 cases. Regarding that 7 patients were Mantoux positive ≥ 13 mm. 60% of patients had abnormalities in the chest radiograph. TB treatment was received in a 100% of patients with a good performance. Regarding the 14 cases of TB diagnosed in other specialties (6 services) subject of study is more variable, predominantly pleural involvement, 9 patients presented radiological abnormalities being the most common pleural effusion. Patients had more risk factors for TB (from foreign origin 2/14 and HIV 3/14). Only 4 cases were described Mantoux reading. With respect to other variables (demographics, additional studies and medical treatment) the information is not collected in the medical record review. Overall 8 biopsy samples were sent (4 IM) to obtain Microbiology, 7 cultures were positive for Mycobacterium tuberculosis. In another 4 cases with pleural effusion the fluid was sent for culture and resulted positive.

Discussion: In the sample high yield is observed in additional studies to biopsy, such as performing a chest radiograph, Mantoux test and mycobacterial culture. Yet in both groups it highlights the lack of samples sent to Microbiology. Only 16% of patients in the sample were of foreign origin, and 12.5% HIV. All patients were treated with three drugs except two patients with quadruple therapy, with good results in 100% of cases and only one patient was not treated because the diagnosis was at necropsy. Comparing the diagnostic M.I. with other specialties it highlights the striking difference in the subject of study (80% adenopathy in MI) and risk factors (1 for 3 in the other services). The systematic study in IM is more complete regarding the conduct of the clinical history and laboratory tests in the rest of the services.

Conclusions: The most frequent form of diagnosis of extrapulmonary tuberculosis was pathologically lymph nodes proceeding in most of the cases from IM, the second most common sample from the pleural effusion biopsy by the department of pneumology. In Suspected TB its highly profitable the application of Mantoux test, chest radiography and culture. In the biopsy study it must be specified the request for the culture of mycobacteria due to its high profitability. TBC ruling must be followed despite not having risk factors (immunosuppression, foreign origin) in lymphadenopathy and pleural effusion.

A-173
SPONTANEOUS BACTERIAL SPONDYLODISCITIS: A 5-YEAR RETROSPECTIVE STUDY

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Objectives: We conducted a retrospective case study over a 5-year period in order to evaluate the clinical features, laboratory findings, management and outcome of patients with bacterial spondylodiscitis.

Material and method: Ten patients (7 men, 3 women; age range 48-85 years, median 67) were identified. Demographic characteristics, underlying diseases, clinical signs and symptoms, laboratory findings, radiologic imaging, isolated microorganisms, treatment and outcome were recorded.

Results: All patients presented with gradually deteriorating back pain and fever (over 38 ºC). Neurological symptoms were found in 6/10. The duration of symptoms varied from 25 to 90 days. No common predisposing factor was recognized except for immunodeficiency and diabetes mellitus in some patients. Laboratory tests revealed in all cases normocytic anaemia and

elevated inflammatory markers (ESR, CRP, leukocytosis). Blood cultures were positive (100%); Staphylococcus aureus was the most frequent isolate (50%). Biopsy of the spine was performed in 2 patients. All patients had undergone MRI scan of the spine, which established the diagnosis. The initial MRI revealed 11 anatomical levels. The most common site of infection was the lumbar spine (O2-O5, 70%). 7/10 patients had multiple occurrences at different levels and 6/10 had also accompanying epidural or paravertebral expansion and psoas abscess. All patients were managed conservatively with parenteral, followed by oral, antibiotic therapy for a mean duration of 3 months. Nine patients regained normal ambulatory status; poor outcome was recorded in only one patient associated with neurological deficits.

Discussion: Back pain was the hallmark clinical manifestation of the disease (100%) accompanied by fever and marked acute phase response (elevated ESR, CRP and leukocytosis) in almost all of our patients at presentation. Positive blood cultures (100%), radiographic imaging and spinal biopsy confirmed the diagnosis. MRI is considered to be the modality of choice both for defining the lesions in spine, epidural or paravertebral expansion or psoas abscess and for follow-up. Conservative treatment resulted in positive outcome in most of our patients. Empirical antimicrobial agents followed by deescalation therapy, after the blood culture results obtained, were administered intravenously for 1-2 months. Outpatient parenteral antimicrobial therapy has been reported to be used for long-term management of the disease, but our patients received oral antibiotics for another 1-2 months after their discharge. In addition, all patients had been immobilized for at least 2 weeks after diagnosis. Inflammatory markers decrease promptly and are used for monitoring, while radiographic lesions restore late in the course of the disease. No surgical intervention was required. Surgical therapy should be considered when treatment failure occurs and persistent clinical symptoms, neurologic deficits, spinal cord instability or deformation are present.

Conclusions: The diagnosis of pyogenic spinal infection should be considered in any patient with acute or subacute back pain, fever and increased inflammatory markers. Early diagnosis and treatment prevent the need for surgical intervention. A long duration of follow-up is required to determine relapse of the disease.

A-174
A COMPARISON BETWEEN THREE MOST COMMONLY USED SCALES AS PREDICTORS OF MORTALITY IN PATIENTS WITH PNEUMONIA IN THE HOSPITAL EL BIERZO FROM JANUARY 1ST TO DECEMBER 31TH 2011

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Objectives: Many groups have been explored factors that predict mortality in hospitalized patients with pneumonia. The CURB 65 score, the Pneumonia Severity Index (PSI) and the Severe Community-Acquired Pneumonia Score (SCAP) are the most commonly used scoring systems. Aim to compare the value of the three scales in patients with suspected pneumonia without an infiltrate on chest X-ray (non-pneumonia) or in patients with aspiration pneumonia (aspiration).

Material and method: CURB-65, PSI and SCAP were retrospectively assessed on consecutive patients hospitalized for respiratory infection in the internal medicine ward of our Hospital from the January 1st to December 31th 2011. The discriminatory value of the three indexes, as predictors of mortality in hospitalized patients. Their value for discrimination on readmission and length of hospital stay were also assessed.

Results: 326 patients were recruited. 56 (17.2%) died in-hospital and 89 (33%) of the 270 survivors were readmitted within one year of discharge. 189 patients were diagnosed as pneumonia (58% males, 82y), 111 as non-pneumonia (66% males, 81y) and 26 as aspiration pneumonia (58% males, 83y). Mortality was significantly higher in patients with aspiration pneumonia (35% vs 15% in non-pneumonia and 16% in pneumonia, p = 0.05). CURB-65 (> 3) was the better discriminator of mortality. The areas under the ROC curves for CURB-65 > 3, PSI and SCAP > 10 for predicting in-hospital mortality were 0.64 (p = 0.00), 0.57 (p = 0.11), and 0.57 (p = 0.14), respectively. Mortality rates according CURB-65 values (< 3 vs > 3) were 10 vs 50% in aspiration (p = 0.09), 6 vs 30% in non-pneumonia (p = 0.00) and 11 vs 22% in pneumonia (p = 0.05). None of the three indexes were related with hospital readmission or in-hospital length of stay.

Discussion: When CURB 65 is greater or equal to three, mortality increases fivefold in patients with respiratory infection without pneumonia and reaches a fifty percent in those with aspiration, which means one in two patients dies. However in patients with pneumonia mortality increases twice.

Conclusions: According to the results of the study carried out the CURB 65 is the most reliable scale as an indicator of mortality.

A-176
EXPERIENCE IN THE TREATMENT OF RESISTANT TUBERCULOSIS

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Objectives: To analyze the epidemiology of TB cases with resistance pattern treated at our hospital. We have classified resistant TB cases according to the 2006 WHO definition. Mono-resistant TB: resistance to one 1st line drugs. Poly-resistant TB: resistance to 1st line drugs other than isoniazid (H) and rifampicin (R). Multidrug-resistant TB (MDR-TB): resistance to H and R. Extremely resistant TB: resistance to H, R, fluoroquinolones (FQ) and injectable drugs (capreomycin, kanamycin, and amikacin).

Material and method: Prospective study of all TB cases diagnosed at the Hospital de Fuenlabrada, Madrid (southwest area), Spain. Study period: from June 1, 2004 to December 31, 2011. The study of resistance was performed on all strains of mycobacteria isolated in the Tuberculostatic National Reference Center. We have review all the medical records of patients admitted in Internal Medicine, Neumonology or other hospital services.

Results: We have analyzed 288 cases of TB. The diagnosis was confirmed by microbiological culture of Mycobacterium tuberculosis complex in 186 (64.6%). The study of resistance was performed in 163 samples (56.6%). The incidence of resistance was 6.6%. Pattern of resistance: H (5.5%), MDR-TB (2.8%), isolated H resistance (2.4%), one case of resistance to I + P, Ethambutol 1.4%; these four patients have also resistant to other 1st line drugs and some injection drugs. There was no resistance to FQ. Resistance to other 2nd line drugs 2.8%. The risk of drug-resistant tuberculosis was higher in male (9% vs 1.9%, P 0.042) and immigrants (12.5% vs 1.8%, P 0.005). There was higher incidence of resistance in HIV positive and diabetics, but not in other groups of immunosuppression (chronic treatment with steroids, cancer, renal or liver failure). Previous TB had a higher prevalence of developing MDR-TB (10% vs 2.3%, p 0.042) and R resistance (20% vs 2.3%, p 0.042). There was higher risk of drug-resistant TB if patients were living in overcrowded conditions (25% vs 6%) although not statistically significant (p 0.18). 7 patients required ICU admission, but only one of them had drug-resistance pattern. Smear-positive 52.6%. The number of cases with a

resistance pattern was similar every year, with an incidence around 2 cases/year. A family microepidemic by a strain resistant to H and ethionamide. Treatment: 48% 2nd line drugs, 47% 4 drugs (1st line), 5% (3 drugs 1st line). The mean time of treatment was 12.5 months, except MDR-TB (24 months). One patient with MDR-TB needed also surgical treatment (pulmonary cavern) and the use of a permanent catheter for injectable drugs. The rate of adverse events was high (47.37%), especially when 2nd line drugs were used. There weren't cases of hepatotoxicity or skin lesions. Evolution: Cure 52.63%, one death (HIV C3 admitted to the UCI). All cases were included in a program of Directly Observed Treatment (DOT), in spite of which, four of them (21%) did not return to the hospital.

Discussion: The immigrant population has increased over the last decade in Spain. This fact may increase new cases of tuberculosis and especially may increase the incidence of tuberculostatic resistance. We have an important problem due to immigrant patients used to discontinue treatment, even though their inclusion in DOT programs.

Conclusions: 1. Male immigrant and immunocompromised (HIV) are the population at greatest risk for resistant tuberculosis.2. The rate of resistance tuberculosis-drugs is high (> 5% H resistance and almost 4% MDR-TB). 3. MDR-TB is observed in pulmonary and extrapulmonary disease. 4. Treatment toxicity was low, appearing mainly when 2nd line is required. 5. A significant number of cases loss the follow up, whit a significant risk to public health. 6. The management of resistant tuberculosis is difficult and a multidisciplinary approach is need (medical and social activities).

A-177
THE PREVALENCE OF FUNGI INFECTIONS IN PATIENTS IN RURAL AREAS AND THE SURVIVAL RATE OF IMPAIRED FUNGAL INFECTIONS (IFI) IN GENERAL HOSPITAL

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Objectives: The environmental spread of Fungi in a rural area with animal farms and systemic agriculture of cotton and yeast. The risk assessment and prognosis of mold-related disease is important for pre-emptive therapy in neutropenic patients.

Material and method: 92 patients, 40 females and 52 males, within the period 2009-2011 detected: 35 with DM (15 hepatic, 20 renal impairments) 25 unspecific symptoms (fever, dyspnoea, haemoptysis) 20 pulmonary fibrosis 4 rabdomyolysis (risk factor) Empeiric therapy with caspofungin, fluconazole, posoconazol, voriconazol 14 (15%) disseminated infection in the hospital.

Results: Table.

Conclusions: Early diagnosis and survival are highly connected-DM is considered a critically-ill non-neutropenic patient. The optimal dose is critically important for effective therapy-IFD is difficult to detect and diagnose due to unspecific symptoms, high cost of serum antigen and drugrelated false positive results (cross reaction). Monitoring of local epidemiology is crucial-Arbitrary use of MIC and PCR. Culture diagnosis is time consuming, leading to pre-emptive therapy.

A-178
TUBERCULOUS PERITONITIS: A REPORT OF 10 CASES

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Objectives: To present a retrospective study of ten consecutive cases of tuberculous peritonitis observed in our hospital during the last ten years.

Material and method: Retrospective study of all the cases with tuberculous peritonitis registered in the last ten years. We considered confirmed diagnosis positive culture for mycobacterium on ascites fluid or a peritoneal biopsy and probable those who had lymphocytic ascites with ADA > 39 U/L or TBC on another organ. We included epidemiological, clinical, analytical, radiological and evolutionary information.

Results: We gathered ten patients with a 59 years old age average, 70% of them were men. In all cases, except one, the symptoms lasted at least for one month. With regards to the risk factors, 3 out of the ten patients were HIV carriers, 4 were HBV (one of them HCV and two others were cirrhotic), one had a renal insufficiency treated with peritoneal dialysis and another one suffered from neoplasia; there were no risks factor in 5 of the patients (50%). 30% of the total number of patients were from African origin. Main symptoms were ascites (80%), fever (60%) and abdominal pain (30%), occasionally constipation, weight loss or abdominal tenderness. One patient was asymptomatic. Most frequent analysis results were anemia and increased of acute phase reactants. Mantoux was only tested into 8 patients, 5 were positive (62.5%). We studied the chest X-ray of 9 cases, with no abnormalities in 8 cases and residual signs in another one. The abdominal CT showed ascites in 8 cases, peritoneal thickening in 7, peritoneal implants on 4 and mesenteric lymphadenopathy. Just one patient went into laparoscopy, where peritoneal implants were found (histopathology: granuloma). Ascetic fluid was analysed in 6 cases, where 4 of them (66.6%) had increased levels of ADA (39 UI/L); among the rest, in 2 cases active TB was found in another organ. On one case laparoscopy was performed and on the other one urgent surgery was required due to intestinal occlusion. In 5 cases possible TB was diagnosed (lymphocytic ascites with increased ADA (3) or TB in another organ (2), in 4 cases we reached to definitive diagnosis (mycobacterium culture

Table (A-177). Results

Groups	Survival rates
15 allergic bronchopulmonary and chronic lung diseases	10 (9%)
Immunocompromised	
35 DM Ketosidosis	30 (27%)
2 SOT (solid organ transplant)	1 (0.9%)
haematological malignancies (chaemotherapy)	5 (4.6%)
15 critically ill & contaminated disease	3 (2.7)
3 HIV	0
Skin infections	
5 infected wounds	5 (4.6%)
2 Disseminated & painful cellulitis & onychomycosis	2 (1.8%)

positive in peritoneal fluid (3) or biopsy (1)); in 1 case urgent surgery was followed by anti-tuberculosis treatment reaching complete cure. Antibiotic treatment included isoniazid and rifampicin in all cases (2 cases required to change rifampicin to levofloxacin due to hepatotoxicity), ethambutol in 2 cases (1 cirrhotic) and pyrazinamide in 8; there were only 2 cases of cytolysis and low cholestasis, solved thanks to levofloxacin inclusion; in all cases cure was reached.

Discussion: Tuberculous peritonitis is an uncommon site of extrapulmonary infection. The risk is increased in patients with cirrhosis, HIV infection, diabetes mellitus, underlying malignancy, anti-tumor necrosis factor agents treatment, patients undergoing continuous ambulatory peritoneal dialysis and in western countries, immigration is also associated. The most common clinical features are ascites, abdominal pain and fever. 70% of patients have symptoms for more than four months before the diagnosis is established. Should be considered on all patients presenting with unexplained lymphocitic ascites with a serum-ascites albumin gradient of < 1.1 g/dl. The gold-standard for diagnosis is culture growth of Mycobacterium on ascites fluid or a peritoneal biopsy. Selection of treatment is based upon the same principles as the selection for pulmonary tuberculosis. Prognosis is variable, depending on the underlying condition, comorbidities and early diagnosis.

Conclusions: Tuberculous peritonitis should be included in the differential diagnosis patients with lymphocytic ascites and fever or serum-ascites albumin gradient of < 1.1 g/dl. Its incidence is increasing with the immigration and the HIV infection. Invasive diagnostic tests should be reserved for those cases where we cannot achieve certain diagnosis or we have serious doubts between tuberculous peritonitis and peritoneal carcinomatosis.

A-179
RISK FACTORS OF QUINOLONE-RESISTANT ESCHERICHIA COLI IN COMPLICATED URINARY TRACT INFECTIONS

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Objectives: Resistance to fluoroquinolone drugs is increasing among Escherichia coli causing complicated acquired urinary tract infections (UTI). The aim of this study was to know the demographic and clinical risk factors of quinolone-resistant E. coli in patients admitted to the hospital with urinary tract infections.

Material and method: A prospective study of patients admitted to the Department of Internal Medicine of a university hospital with community acquired UTI was performed, during a four-year period. Clinical and microbiological characteristics of quinolone-resistant and quinolone non-resistant E. coli cases were compared. Statistical analysis was done by SPSS 18.0.

Results: Two hundred and twenty-five patients with E. coli UTI, 76 men and 149 women, with a mean age of 78.13 ± 14.18 years old were included. Eighty six (38.2%) and 139 (61.8%) cases were caused by quinolone resistant and non-resistant E. coli, respectively. By univariate analysis quinolone-resistant E. coli was associated to McCabe Index > 2 (OR, 0.51; 95%CI, 0.33-0.79), nursing home residents (OR, 3.05; 95%CI, 1.27-7.32), dementia (OR, 2.03; 95%CI, 1.16-3.54), recurrent UTI (OR, 4.36; 95%CI, 2.37-8.03), previous hospitalization (OR, 5.64; 95%CI, 3.13-10.17), urinary catheter (OR, 4.11; 95%CI, 2.07- 8.16), health-care related infection (OR, 6.72; 95%CI, 3.60-12.55), and antibiotic use within previous 3 months (OR, 7.41; 95%CI, 4.05-13.55). By multivariate analysis only the previous use of antibiotics was related to quinolone-resistant E. coli (OR, 4.17; 95%CI, 1.71-10.17). However, empirical treatment with quinolones is not even recommended in patients without previous use of antibiotics, as the proportion of quinolone-resistant in these patients was 19.69%.

Conclusions: Previous use of antibiotics is the only predictive factor of quinolone-resistant E. coli in complicated urinary tract infections. However, the high proportion of quinolone-resistant E. coli in our setting makes the empirical use of quinolones in complicated UTI not recommended under any circumstances.

A-180
DYSLIPIDEMIA AND ANTIRETROVIRAL THERAPY IN PATIENTS WITH HIV INFECTION. HOW MANY PATIENTS DO WE TREAT WITH LIPID LOWERING DRUGS?

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Objectives: Our objective was to assess the prevalence of dyslipidemia and its relationship to antiretroviral treatment and to study lipid-lowering drug use in this population.

Material and method: Design: Cross sectional study. All HIV infected patients seen at the HIV unit with at least one full lipid profile were included. We studied the prescription of lipid-lowering drugs (statins, fibrates or ezetimibe) at the time the lipid profile was assessed.

Results: 336 were studied with a median age of 43 years (IQR: 37-48 years) Of which 68% were males. 32.8% were HCV + and 3% were HBsAg +. 78.1% had a VL < 50 copies/ml and median CD4 was: 530 cells/mcL (IQR: 380-672). 56.5% were using one NNRTI and PI 43.5%. 82.5% used the tenofovir and abacavir 9%. 30.1% of patients had cholesterol above 200 mg/dl and 33% had hypertriglyceridemia over 150 mg/dl. 14.9% had LDL above 160 mg/dl. 29.6% had a low HDL and total cholesterol/HDL was higher than normal limits in 14.8%. Statins were used in 7.4% of patients, 0.6% fibrates and 0.6% ezetimibe. There was less hypercholesterolemia with DRV/r than ATV/r (p = 0.049) and ATV/r than LPV/r but without being statistically significant. There was less hypercholesterolemia with NEV than with EFV and with TDF than with ABC, although the differences were not statistically significant. NNRTIs had higher HDL (p = 0.011) and lower total cholesterol/HDL that IP (p = 0.001). The DRV/r showed less hypertriglyceridemia and lower total cholesterol/HDL than ATV/r (p = 0.006 and < 0.0001 respectively). HCV patients had less cholesterol levels (p < 0.001) and LDL (p < 0.006). Neither CD4 nor CV was associated with a worse lipid profile. Substantial variability was observed among physicians when prescribing statins although each doctor conducted a similar percentage of dyslipidemia (p = 0.028).

Discussion: Although dyslipidemia is high in our population, few patients are being treated with statins. There are still no good clinical trials to evaluate the best strategy for dyslipidemia (adding statins or modifying antiretroviral treatment). In our studies we were surprised to find the Darunavir/r better lipid profile, as against Atazanavir/r. These drugs have been compared in a small clinical trial without any observable differences (i.e Metabolic clinical trial).

Conclusions: The prevalence of dyslipidemia is substantial in people with HIV infection. Despite a high prevalence of dyslipidemia, statin use in this population is infrequent. NNRTIs and DRV/r are seen as antiretrovirals with more favorable lipid profile.

A-181
RETROSPECTIVE STUDY OF PNEUMONIAS IN THE AREA OF THE BIERZO: MORTALITY, READMISSION AND HOSPITAL STAY IN 2011

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Objectives: Respiratory infections such as pneumonia are a major cause of admission in internal medicine services. In our retrospective study we analyze the causes that increase the mortality of our patients.

Material and method: Patients hospitalized for respiratory infection in the internal medicine ward of Hospital El Bierzo from the January 1st to December 31th 2011 were selected. Several demographic, signs, symptoms, comorbidity, laboratory, X-ray and microbiology data were analyzed and related with in-hospital mortality, length of in-hospital stay and readmission in the year before discharge.

Results: 326 patients were recruited. 56 (17.2%) died in-hospital and 89 (33%) of the 270 survivors were readmitted within one year of discharge. Mortality rates were higher in patients with hospital-acquired pneumonia (33%) and "healthcare-associated pneumonia"/ nursing homes (20%) than in patients with Community-acquired pneumonia (7.4%, p = 0.00). Also mortality rates were higher in aspiration pneumonia (35 vs 15% p = 0.05), pulmonary fibrosis (50 vs 17% p = 0.03), renal failure (24 vs 15% p = 0.05), history of stroke (30 vs 14% p = 0.01), dependency in activities of daily living (20 vs 10% p = 0.02), altered mental status at admission (30 vs 5% p = 0.00), tachypnea at admission (41 vs 7% p = 0.00) and bilateral consolidation in X-ray (30 vs 13% p = 0.04). Blood cultures were done in 96 patients (29%) with 11% positive. Sputum culture was done in 115 (35%) with 33% positive. Urinary antigen was done in 109 (33%) with 8% positive for S. pneumoniae. The positive result of blood cultures and urinary antigen were associated with higher mortality (36 vs 7% p = 0.00 and 22 vs 4% p = 0.02 respectively). Hypertension, ambulatory oxygen therapy, long-term corticoids schemes, active alcoholism, renal failure and altered mental status at admission were related with higher rates of readmissions. Patients with hospital-acquired pneumonias have longer in-hospital stays.

Discussion: Pneumonia is a disease that is growing and generating significant morbidity and mortality with frequent hospital admissions and healthcare costs. The retrospective chart review may be useful to detect defects in the operation of our service and improve the quality of care for our patients.

Conclusions: 1. Within three types of pneumonia, which has a higher mortality rate is the Hospital acquired pneumonia. 2. We have analyzed other clinical factors, laboratory and radiological also increase mortality as: aspiration pneumonia, pulmonary fibrosis, renal failure, history of stroke, dependency in activities of daily living, altered mental status at admission, tachypnea at admission, bilateral consolidation in X-ray and the positive result of blood cultures and urinary antigen. 3. Chronic diseases such as hypertension, renal failure or altered mental status and chronic treatment with oxygen or steroids were due to higher readmission rate. 4. The hospital stay was longer in hospital-acquired pneumonias that Community-acquired pneumonia or healthcare-associated pneumonia.

A-182
ANALYSIS OF 111 CASES OF EXTRA PULMONAR TUBERCULOSIS

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Objectives: To analyze the clinical features, epidemiology, risk factors and outcome of patients with extra pulmonary tuberculosis (EPTB). To assess the differences observed regarding cases of pulmonary tuberculosis (PTB).

Material and method: Prospective study of cases of tuberculosis (TB) diagnosed at the Hospital de Fuenlabrada, Madrid (southwest area), Spain. Study period: from June 1, 2004 to December 31, 2012. Variables analyzed: epidemiological risk factors for tuberculosis, clinical, radiological and laboratory findings, diagnosis, treatment and outcome.

Results: 288 cases of TB. 111 (38.54%) cases of EPTB. The mean age of patients with EPTB was 42.72 years (SD 20.5) vs 37.30 years (SD 19.9) for patients with PTB, without significant association (p 0.059). Males and smokers had frequently pulmonary disease (p < 0.05). Immigrants were similar in both groups. Patients with immunosuppression, especially HIV had extra pulmonar disease. Patients with pulmonary TB had respiratory, systemic symptoms and low weight more often than no pulmonar disease (p < 0.05). There were no differences about laboratory abnormalities (elevated CRP, leukocytosis or anemia). Extra pulmonar disease was diagnosed mainly by histology (p < 0.05) while pulmonary disease was diagnosed by microbiological techniques (p < 0.05). There were no differences in the clinical suspicion. Seven patients required admission to the ICU. Four of them were patients with no pulmonary tuberculosis and the other three had pulmonary disease. There wasn't a significant association of risk (p = 0.306). Multidrug resistance was higher in the group of EPTB (4.8% vs 3.5%), although not statistically significant. Resistance to isoniazid was the primary resistance most frequently observed (2.25% PTB and 1.8% EPTB).

Discussion: In our study we have found most frequently lymph node involvement than others reports. No pulmonary tuberculosis has low profitability of microbiological diagnosis. That's why we need a predictive model based on demographic, clinical, radiological and laboratory test to confirm or exclude the disease.

Conclusions: 1. Younger patients with immunosuppression have more often no pulmonary tuberculosis. 2. There are no differences about gender or nationality. 3. Pulmonar tuberculosis predominates in young male smokers. 4. EPTB cases are concentrated in younger patients, no differences in gender or nationality, unlike TBP predominates in young male smokers. 5. Systemic symptoms are frequently found in cases of PTB. 6. There`s high incidence of multidrug resistance in cases of EPTB, in spite of that evolution is favorable with a very low incidence of recurrence or death.

A-183
REVIEW OF CASES OF CHAGAS DISEASE IN HEALTH AREA OF TOLEDO

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Objectives: Review of epidemiology, initial approach and/or early treatment of Chagas disease in the health area of Toledo.

Material and method: Retrospective review of cases of Chagas disease diagnosed in the period between 0 1/01/2009 and 15/05/2012, collected from all over the health area of Toledo, including cases with positive serology for Trypanosoma cruzi (ELISA and IFI.).

Results: This is a descriptive study, accomplished through the digitized search in medical records in the Hospital Virgen de la Salud de Toledo, with data analyzed by SPSS, with the total sample n = 12, 50% women, 50% male, mean age at diagnosis 33.58 years, with a standard deviation of 14.06 years. All subjects are from Bolivia. The reason for initiating the study was, in 33.33% of cases by family history of Chagas disease, 33.33% was due to place of origin, 16.66% started by screening for donation and 16.66% by screening during pregnancy In 100% of cases were diagnosed in chronic and indeterminate phase of disease. The percentage of missing cases was 41.7% and 58.3% remained, of whom 28.5% started treatment, performing PCR for Trypanosoma cruzi prior to treatment. Only 14% continued treatment, now presenting cutaneous hypersensitivity. In 75% of patients underwent echocardiography, with mean LVEF at baseline of 63.50%, without changes in contractility, aneurysms or intracavitary thrombus in any of the cases.

Discussion: Chagas disease is a zoonosis endemic in America, caused by the protozoan Trypanosoma cruzi. This is an emerging disease in our environment due to migration from Latin America to non-endemic countries. The most common means of transmission in endemic countries is the vector, but the vector does not exist in Spain, being the horizontal route the most common way of transmission (for organ donation or blood transfusion; carried out, by law, a screening), and less frequent the vertical way. It consists of an acute phase, the most common in children, 50% asymptomatic, which if untreated, becomes a chronic phase, which presents symptoms occasionally (20-30% of cases) with cardiac disease (blockages, arrhythmias) and digestive (megasyndromes). Chronic cases are the most frequently detected, encompassing pregnant in endemic areas, the rest of population from endemic area and reactivation in immunocompromised individuals. This diagnosis is made with direct or indirect techniques (ELISA and IFI) and PCR, being also chosen to follow. The treatment of choice is benznidazole; beginning in acute states, children, immunosuppressed, transplant recipients and chronic individual cases. Of the 12 cases analyzed, 100% were from endemic areas, identified by family history, origin, and screening in pregnant women and donor. All patients were asymptomatic, being in chronic undetermined phase. Were treated 2 of 12 patients, being present only one of them.

Conclusions: Chagas disease is an infrequent infection underdiagnosed and with poor follow-up given the high percentage of patients who leave the study for demographic reasons. The reason for the emerging interest is the increase of immigrants from endemic areas with chronic illness, pregnant women and blood and organs donations.

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DEVELOPMENT OF TUBERCULOSIS IN HIV-INFECTED PATIENTS RECEIVING SUCCESSFUL ANTIRETROVIRAL THERAPY

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Objectives: The risk of developing TB is markedly reduced in HIV-infected patients receiving HAART, but the incidence is still significantly higher than that in the non-HIV-infected population. Our aim is to evaluate if the residual risk of developing TB in patients treated with HAART is related to an inadequate immunovirological response.

Material and method: Observational, cohort study in a single institution. Patients were included in the analysis if they had received HAART (a combination of at least 3 antiretroviral drugs) at any time in the course of HIV infection. TB was diagnosed only if microbiologically proven. Univariate and multivariate analyses were performed to identify risk factors associated with the development of TB.

Results: This study included 1,824 patients, followed for a median 473 days. Most patients (59%) had acquired HIV-infection through intravenous drug use. After initiation of HAART, 45 patients developed TB during the follow-up. The development of TB was directly related with the increase in CD4 count [OR (95%CI): 0.683 (0.522-0.894) by increases of 100 CD4/µL over baseline]. The maximal protection was reached in patients increasing ≥ 150 cel/µL after 12 months of therapy [OR (95%CI): 0.29 (0.11-0.8)] or ≥ 300 cel/µL after 24 months of therapy [OR (95%CI): 0.73 (0.71-0.75)]. However, there was still a measurable residual risk in patients with successful HAART. There was no association between achieving HIV RNA < 50 copies/mL and the development of TB [OR (95%CI): 1.43 (0.68-2.49)].

Conclusions: The risk of developing TB in patients on HAART is related with the immunological response, as measured by the absolute CD4 count, and not with the virological response. The significant residual risk of developing TB in patients receiving otherwise successful HAART, emphasizes the need of adjunctive strategies in order to minimize this risk.

A-185
SHOULDER ARTHROPLASTY (SA) INFECTION: EXPERIENCE WITH SIX CASES

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Objectives: To review PSI in our institution in order to describe clinical, microbiological and therapeutic features.

Material and method: In our institution almost all prosthetic joint infections (PJI) are evaluated and followed by the Infectious Diseases Service. We selected all PSI from the cohort of patients with PJI followed by the infectious diseases service during the period 2007-2012. The diagnosis of infection was defined as the presence of at least one of the following four criteria: isolation of the same microorganism from two cultures of joint aspirates or intraoperative periprosthetic tissue specimens; presence of acute inflammation on histopathological examination of periprosthetic tissue; sinus tract communicating with the prosthesis; or purulence in a joint space. We classified PSI according to the classification of Tsukayama in four types. I: positive intraoperative culture; II: early postoperative infection (< 1 month after implantation); III: acute hematogenous and IV: late-chronic (> 1 month after implantation).

Results: During the study period 172 PJI were followed by the infectious diseases service. Only 6 (3.5%) were PSI. The average age was 75.3 years. 50% was female. According with Tsukayama classification, 2 PSI were diagnosed as type II, and 4 PSI as type IV. Among these four cases the average since the placement of the prosthesis to the diagnosis of late chronic infection was 23.5 months. Clinically all patients presented with local signs (erythema, purulent drainage, wound infection) without systemic signs or symptoms. Staphylococcus epidermidis was isolated in all the cases,

Propionibacterium acnes in 3, Staphylococcus auricularis in 1 and Corynebacterium in 1. Three of the cases presented polimicrobial infections. Only 1 of the 4 type IV cases was treated with the standard two-stage procedure of prosthesis exchange; in the other 3 patients a conservative approach of debridement, prosthesis retention and "suppressive" antibiotic therapy was elected in order to preserve the function of the implant. Two early PJI were managed with debridement and prosthesis retention. All the patient remain free of symptoms of infection after a mean follow-up of 16 (2-29) months, and last C-reactive protein remain in normal range in five (one case still on therapy for an early PJI).

Discussion: Shoulder arthroplasties represent a very small percentage of the performed joint replacements. In fact, prosthesis registers are usually limited to hip and knee implants, and do not include shoulder prosthesis. In accordance with this, there is a limited experience with SA infections. Although it is assumed that the general principles of management for knee and hip prosthetic joint infections (PJI) should be applied to prosthetic shoulder infections (PSI) functional and anatomical differences could influence a more conservative approach.

Conclusions: All microorganisms isolated were gram-positive bacteria, and in half of the cases P. acnes was implicated. The diagnosis should be suspected always in presence of wound infection or local signs. We found a more conservative approach than in hip and knee PJI, probably because shoulder is not a loading joint and its function could be sometimes preserved in spite of infection.

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STREPTOCOCCUS BOVIS BACTERAEMIA: CLINICAL AND MICROBIOLOGICAL CORRELATES IN A SERIES OF 26 PATIENTS

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Objectives: To characterise the clinical features, associations and outcome in a series of patients with Streptococcus bovis bacteraemia.

Material and method: Retrospective analysis of all episodes of Streptococcus bovis bacteraemia at a University Hospital from Spain between January 2004 and November 2010 was performed. The hospital records of these patients were reviewed to assess their demographic and clinical features.

Results: During the study period 26 evaluable episodes of Streptococcus bovis bacteraemia were identified (20 males; mean age 69.6 years). The most important underlying predisposing conditions were: Chronic liver disease 26.9%, history of malignancy 23%, valvular heart disease 42.3%. Presumed sources of SBB were: biliary tract infection 3 patients, primary bacteraemia 9 patients and infective endocarditis 13 patients. Overall, 19 patients (73%) underwent colonic evaluation. Some form of gastrointestinal pathology was present in 17 patients examined. A diagnosis of colorectal carcinoma was made in 1 patient. 23 of the bacteraemia episodes (88.4%) were caused by S. bovis biotype I and the remaining 3 patients by S. bovis biotype II species. Gender distribution did not differ between the two groups, whereas the mean age in patients with bacteraemia caused by S. bovis biotype II (60 years) was lower than those with S. bovis biotype I bacteraemia (70 years). Infective endocarditis was significantly more common among patients with S. bovis biotype I infection. At the end of the observation period, none of patients had deceased.

Conclusions: Isolation of S. bovis from blood cultures should lead to prompt investigation of infective endocarditis. The high incidence of primary bacteraemia has been relevant.

A-187
UROPATHOGENS IN PATIENTS ADMITTED TO AN INTERNAL MEDICINE SERVICE; RELATIONSHIP WITH COMORBIDITY, RISK FACTORS AND ORIGIN

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Objectives: The wide use of antibiotics has led to changes in antimicrobial sensitivity and emergence of acquired resistance in urinary pathogens. There is no universally accepted definition of "multiresistence", but the suspicion of its existence is crucial to choose an appropriate empirical antibiotic treatment. The aim of this study is trying to relate specific clinical characteristics (origin, risk factors and comorbidity) with the presence of a germ-resistant in the urine culture.

Material and method: A total of 100 samples were taken from patients admitted to the Internal Medicine Department of the Hospital de la Cruz Roja (Madrid; Spain) for any reason, from January 2011 to April 2012. Were considered multiresistant microorganisms (MMR) those in which there was high or intermediate resistance to more than one family or group of commonly used antimicrobials, in addition to those, who by their clinical significance or epidemiological deserved to be considered. Clinical characteristics of the source patient, theoretical place of pathogen acquisition, risk factors for presence of urinary tract infection, and patient's comorbidity according to Charlson index were analysed. The risk factors for urinary infection was: 1) presence of urinary catheter, 2) manipulation of the urinary tract the previous week, 3) the month before hospitalization, 4) use of antibiotics in the previous month, 5) more than two episodes of urinary infection in the past year; 6) diabetes mellitus, 7) chronic renal insufficiency (creatinine > 1.3 mg/dL), and 8) use of steroids (more than 5 mg. for more than 3 weeks). The processing and statistical analysis of data was performed using SPSS 15.0.

Results: Clinical characteristics of source patients were: age 82.74 (SD 9.6), male sex 38%. 12% of them were institutionalized and 53% had some degree of dependency. 77% of patients had, at least, one risk factor for urinary tract infection, the most prevalent was diabetes mellitus (30%), followed by the presence of urinary catheter (26%) and the use of antibiotics in the previous month (23%). The community-acquired was considered by 79%, hospital-acquired 13% and institution-acquired 8%. The mean Charlson index of patients was 2.94 (range 0-11, SD 2.05). E. coli was the most frequent pathogen founded (45 positive cultures), followed by Klebsiella and Enterococcus sp. 77% (77) of the isolated organisms were multiresistant (MMR). The 81.1% of the cultures with MMR germs came from patients with at least one risk factor, compared with 60.9% of no MMR who came from the same kind of patients ($p = 0.036$). There was no statistical significance between the source of acquisition of the urine culture (community, institution or hospital) or Charlson index (though there was a tendency that suggests that this significance is not reached due to the small sample size).

Conclusions: One or more risk factors presence for urinary infection correlates a priori, with the possibility of finding a multiresistant germ in the urine culture. The isolation of multiresistant bacteria has no exclusive nosocomial origin, but it is widely spread by the institutions and, more worryingly, in the community. More studies are needed to correlate rates of comorbidity (such as Charlson index) and the presence of multiresistant bacteria in urine.

A-188
STUDY OF PNEUMOCOCCAL INFECTION AT FUENLABRADA HOSPITAL'S AREA

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Objectives: Streptococcus pneumoniae infection is the most common cause of community-acquired pneumonia and the most frequent cause of pneumonia hospitalization. In Spain is estimated between 5 and 11 cases per 1000 inhabitants/year. Urine antigens determination is a rapid and highly sensitive for the diagnosis of this infection.

To determine the number of isolates positive for Pneumococcus in the urine in the period between November 2010 to February 2011 and November 2011 to February 2012. Analyze the clinical and epidemiological characteristics of patients, and pneumococcal prophylaxis indication.

Material and method: Descriptive study of pneumococcal urinary antigen registers requested by the Departments of Internal Medicine, Pneumology, Oncology and Emergency, during the winter months of 2010, 2011 and 2012, analyzing the prevalence of various comorbidities that are associated to pneumococcal infection: Diabetes mellitus (DM), heart disease, chronic lung disease, chronic kidney disease (CKD), liver disease, immunosuppression, and splenectomy. Also determine the percentage of patients vaccinated for pneumonia among all patients, and those who fulfill criteria of vaccination without being, by using the HORUS (computer network connecting primary care with the specialist). The study analysis was performed using SPSS 18.0.

Results: During the first period studied there were 24 positive pneumococcal urinary antigen made a total of 379 (6.3%). In the second period there were 34 positive urinary antigen of 419 (8.1%) requested. Of the total of confirmed pneumococcal infection (58), 48% were women and 52% male, mean age 68 years ± SD 20 (range between 16 and 95). In 61% of patients the definitive diagnosis was obtained during the first three days after his arrival in the ED. In 52% of patients initial antibiotic therapy was modified after the definitive diagnosis. 7% of the patients died during admission being only one case directly related to pneumococcal infection. 41% of patients suffered at least one diagnosed chronic lung disease, 41% had some form of heart disease, 26% of DM, 12% of patients had some degree of immunosuppression, 10% had CKD, and 10% liver. From all of patients 73% fulfilled criteria for prophylaxis, among them, only 14% were vaccinated.

Conclusions: Our study shows the low vaccination coverage in patients at high risk of pneumococcal infection (over 65 years with one comorbidity), however, mortality from pneumonia is very low in our series. The definitive diagnosis was made in most cases so early in the first 3 days and led to the modification of the antibiotic in more than half of cases. The most common comorbidities related in our series, with pneumococcal infection are chronic lung diseases, heart disease and diabetes.

A-189
USE OF EMPIRICAL ANTIBIOTIC THERAPY IN DEPARTMENTS OF INTERNAL MEDICINE OF THE EMILIA ROMAGNA REGION (ITALY): DIFFERENCES BETWEEN MANAGEMENT OF SEVERE INFECTIONS IN HOSPITALS OF LARGE AND SMALL DIMENSIONS

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Objectives: In the peripheral hospitals, where often infectious disease specialists lack, the internists are involved to start the empirical antibiotic treatment for serious infections requiring hospitalization. Indeed in severe infections adherence to guidelines, the appropriate use of resources, the timing of onset, the correct dose and the right choice of antibiotics are of extreme importance for patients' outcome. The aim of this study was to know the practice about the use of starting empirical antibiotic therapy in severe infectious disease requiring hospitalization in all the 70 Internal Medicine Units of Emilia Romagna Region (Italy), and to analyze the difference between hospitals with more than (big) and with less than (small) 250 beds.

Material and method: A questionnaire of 55 questions was administered to all 70 teams of Internal Medicine of the Emilia Romagna Region (Italy). Statistical analysis of collected data was performed using Chi square test by splitting into 2 groups the units who responded to the questionnaire based on hospital size (with more than or less than 250 beds) to evaluate a statistically significant difference ($p < 0.05$) with regard to adherence to the main guidelines of scientific societies in the field of infectious diseases and the administration of empirical antibiotic starting therapy for serious infections requiring admission to hospital.

Results: Replies to the questionnaire were received from 53 departments contacted on 70 (75.7%) with a good representation of all the Internal Medicine Units of the provincial region. Statistical analysis revealed some interesting data from hospitals of large and small dimensions, as regards the management of serious infections by internists. In small hospitals were required more consulting ($p < 0.05$) from emergency department for patients with acute infections than in big hospitals, this result appears to be strongly influenced by the existence of a Department of Infectious Diseases. For the same reason it was found that in small hospitals internists were called for consulting in surgical wards for patients with acute infectious disease ($p < 0.05$) more frequently than in larger hospitals. In hospitals with more than 250 beds were prescribed more recent drugs such as linezolid and daptomycin for infections by Gram + MRSA instead of the glycopeptides ($p < 0.05$), this data is to be referred to more consuetude in treating infections sustained by MDR bacteria by the units of Internal Medicine of the larger hospitals. And finally in small hospitals seems to be more attention to data collection with computerized programs and to measure therapeutic efficacy and use of resources.

Conclusions: In Emilia Romagna Region the units of internal medicine have become aware of the serious problem of severe infections, but there are still major disparities in the management of the empirical treatment of these diseases, both in terms of the appropriateness of high cost antibiotic prescriptions as for the use of resources and the measurement of outcomes. The purpose of our scientific society (FADOI) is to standardize the management of serious infections through a training program for professionals and peer audit.

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TUBERCULOSIS PLEURAL EFFUSION IN CASTILLA-LEON Y CANTABRIA

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Objectives: To evaluate the bacteriology, clinical course, characteristics of the pleural effusion and outcome of patients with tuberculosis thoracic empyema.

Material and method: We have retrospectively reviewed the charts of all patients with a hospital discharge diagnosis of tuberculosis empyema in 14 hospitals from Castilla y León and Cantabria between January 2005 and December 2009. The diagnosis was confirmed by the positivity of the Lowenstein culture in pleural fluid. We compared the results with the characteristics of non-tuberculosis thoracic empyema recorded in the same time and hospitals.

Results: From 459 empyemas register during the time of study, only12 patients were identified as having tuberculosis empyema. The group included 11 males (91.7%) and one female (8.3%) with an average of 40.83 years. Nobody of the patients death during the study and all of them were discharged from the hospital. Only one predominant co-morbidity was found: diabetes mellitus. All the patients had symptoms attributable to their empyema with cough and purulent sputum being the most common symptoms in a 58.3%. of the cases. Other symptoms included: fever (50%), with chest pain, dyspnea and hemoptisis in less than 10% of the patients. The pleural fluid had a serofibrinous macroscopic aspect in 91.7% versus an 8.3% of purulent fluid. In all the cases, the pleural fluid contain a great number of lymphocytes with an ADA elevated. Only in one patient, the Ziehl tintion of pleural fluid was positive. The 12 cases received appropriate treatment with tuberculostatic therapy, 2 patients were treated by drainage and 1 requiring decortication. Only one complication was recorded: pyopneumothorax.

Conclusions: In our series, tuberculosis thoracic empyema seems rare. Male patients predominated with a male patient/female patient ratio of about 10:1 and great average tan other series. These patients had less co-morbidities and factor leading to infection. No mortality attributable to the disease was found. The clinical course is nonspecific and less expressive tan in other bacterial empyemas. The diagnosis was confirmed in all the cases by pleural fluid Lowenstein culture. In the pleural fluid, the predominant is a serofibrinous aspect with elevated ADA and negative Ziehl. The best approach is the appropriate treatment with tuberculostatic therapy with less thoracic drainage.

A-191
THORACIC EMPYEMA IN HIV-INFECTED PATIENTS

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Objectives: To evaluate the bacteriology, clinical course, characteristics of the pleural effusion and outcome of HIV-infected patients with thoracic empyema.

Material and method: We have retrospectively reviewed the charts of all HIV-infected patients with a hospital discharge diagnosis of empyema in 14 hospitals from Castilla y León and Cantabria between January 2005 and December 2009. The diagnosis was confirmed by one of the following criteria: pleural fluid culture or Gram´s stain showing organism, documentation of gross purulent fluid at thoracentesis or biochemical evidence of empyema defined as pH < 7.10, and either lactate dehydrogenase level > 1,000 IU/l or glucose level < 40 mg/dl.

Results: 6 patients were identified as having empyema during the period of study. The group included 5 males (83.3%) and one female (6.7%) with an average of 55.16 years. Length of hospitalization average was 10.5 days. The cultures of pleural fluid were positive in 3 cases (50%) with no bacteria predominant isolates. All patients had symptoms attributable to their empyema with chest pain and fever being the most common symptoms (66%). Other symptoms included purulent sputum (50%), cough (50%) and dyspnea (33%). The pleural fluid had a purulent aspect in 5 cases (83.3%) containing great numbers of polymorph nuclear leukocytes. No predominant factor leading to infection or co-morbidity was found. The 6 cases received appropriate antibiotic. 3 cases were treated by drainage and 2 requiring decortication. All the patients survived and were discharged from the hospital.

Conclusions: In our series, thoracic empyema seems rare in adults HIV-related diseases, compared to general population. Male patients predominated with a male patient/female patient ratio of about 5:1 and less average than in other series. No predominant microbiology of the pleural fluids was recorded. All patients had symptoms attributable to their empyema with fever and chest pain being the most commons. The best approach to treatment is a prompt drainage of the infected pleural cavity and appropriate antibiotic treatment, since a favorable outcome is expected.

A-192
PYOGENIC LIVER ABSCESS: ANALYSIS OF THE CLINICAL CHARACTERISTICS, ETIOLOGY AND OUTCOME

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Objectives: Pyogenic liver abscess is a potentially life-threatening condition. Knowledge of etiology and related risk factors play an important role in the successful therapy. In this study our intention is to investigate the clinical characteristics, underlying diseases, etiology, outcome, and prognostic factors related to mortality of the pyogenic liver abscess.

Material and method: The medical records of all patients admitted to the hospital with a diagnosis of liver abscess during the period 2000 to 2012 were reviewed. This hospital serves to a population of 400.000 habitants. A retrospective, descriptive study was conducted. Categorical variables were analyzed by χ^2 test and the difference between means of continuous variables with t test.

Results: A total of 71 patients (45 men and 26 women; mean age 65.5 years; SD 16.98) with a diagnosis of liver abscess were studied. Mortality rate was 15%. Associated medical conditions were: High blood pressure 43.7%, Diabetes mellitus 26.8%, liver disease 16.9%, malignancy14.1%. The median Charlson score on admission was 3.94 (SD 2.76). The higher values were associated with higher mortality rate (p = 0.014). The predominant source of infection was the biliary system 44%: biliary duct obstruction 6 cases, cholecystistis 11, cholangitis 14. Abcesses in 19 patients were of unknown origin despite thorough investigation (26%). The most common symptoms were fever and/or chills (77.5%), abdominal pain (67.6%) and vomiting (25%). Leukocytosis (defined as WBC > 11,000 cells/mm^3) was observed in 43 patients (60.6%).

Total bilirubin was elevated in 19 patients (26.8%). A significant difference in mortality rate was found in relation to higher levels of bilirubin (p = 0.04), deceased patients had a mean bilirubin of 3.44 and survivors 1.16. Blood cultures were carried out for 50 (70%) patients with 26 (52%) yielding a positive result. Abscess cultures (obtained by image-guided percutaneous needle aspiration) were carried out for 46 patients (64%) of which 29(63%) yielded isolates. Microbiological findings: 18 (25.4%) of the infections were polymicrobial. E. coli was the most common isolated 15 cases (21.1%), followed by Klebsiella spp 13 cases (18.3%), Streptococci spp 11 cases (15.5%). Klebsiella spp was isolated more frequently in diabetic patients than non-diabetic patients (p = 0.019). Eighteen patients develop complications (25´45), relapse occurred in 9 patients (12´7%) and 11 patients died (15.5%). Among patients who suffered relapse of the abscess the median time of treatment was 24.44 days compared to 53.46 days in the group which did not relapse (p = 0.03).

Discussion: In the present study the annual incidence (1.45 cases per 100,000 hab) and mortality rate 15% indicates that this intraabdominal infection represents an important disease to be consider. Yield of the abscess cultures was higher than that of blood cultures, therefore it is important to obtain culture of the abscess material in order to identify the causative organism of the liver abscesses.

Conclusions: This study shows that biliary-related origin is the main etiology of pyogenic liver abscesses, most of them were polymicrobial, and among those with just only one bacterium the most frequent were E. coli and Klebsiella spp. Liver abscess has a relatively high mortality rate, which is associated with high score in Charlson scale, and hyperbilirubinemia.

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PREVALENCE AND CHARACTERISTICS OF COMPLICATED COMMUNITY-ACQUIRED PSEUDOMONAS AERUGINOSA URINARY TRACT INFECTIONS

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Objectives: Pseudomonas aeruginosa is primarily encountered as a nosocomial pathogen. However, as the characteristics of patients admitted to hospitals have changed there appears to be increasing recognition of P. aeruginosa as a cause of community acquired infections. The aims of this study are to identify the prevalence and the clinical and epidemiological characteristics of complicated community-acquired P. aeruginosa urinary tract infections (UTIs).

Material and method: Study of a prospective series of patients over a four-year period admitted to a Department of Internal Medicine of a university hospital with community acquired UTI. The prevalence of P. aeruginosa was determined and their epidemiological and clinical characteristics were collected by chart review and compared to UTIs caused by other pathogens. SPSS 18.0 was used for statistical analysis.

Results: Eleven cases (3.7%) from a total of 300 UTIs with a pathogen isolated in urine were caused by P. aeruginosa. The mean age of patients with P. aeruginosa UTIs was 77.8 ± 14.2 years; 63.6% were male; a history of recurrent UTIs was found in 36.4% of cases; previous use of antibiotics was recorded in 72.7%; severe sepsis and septic shock were present in 27.3% and 9.1%, respectively; Mc Cabe index was ?2 in 63.6%. None of these characteristics were statistically different between the groups of P. aeruginosa and non-P. aeruginosa UTIs. A history of recent hospitalization (72.7% for P. aeruginosa vs 42.2% for non-P. aeruginosa, p = 0.045), permanent urethral catheter (54.6% for P. aeruginosa vs 23.5% for non-P. aeruginosa, p = 0.019), UTI related to health care (90.9% for P. aeruginosa vs 57.4% for non-P. aeruginosa, p = 0.027) and inadequate empirical antimicrobial treatment (54.5% for P. aeruginosa vs 24% for non-P. aeruginosa, p = 0.028) were more frequent in the group of P. aeruginosa UTIs.

Conclusions: P. aeruginosa is an infrequent cause of UTIs in patients admitted to the hospital from the community (3.7%). The prevalence of P. aeruginosa in patients with no health care associated infections is so low in our setting (0.5%) that empirical antimicrobial treatment against P. aeruginosa for community UTIs is unnecessary.

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RELATIONSHIP BETWEEN SERUM RESISTIN CONCENTRATIONS AND INSULIN RESISTANCE IN PATIENTS WITH CHRONIC HEPATITIS C

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Objectives: Resistin is a protein secreted by preadipocite in the process of differentiation into mature adipocytes and has a strong pro-inflammatory action. Resistin is linked to the development of insulin resistance (IR), but information on the direct relationship of resistin levels in humans with chronic hepatitis C (CHC), and their effect on the histological severity, are few. The aim of the current study was to determine the circulating resistin levels obtained from patients with CHC and to correlate them with insulin resistance and hepatic histological features.

Material and method: We included 172 patients with chronic hepatitis C virus, 60 patients with NASH (certified ultrasound) and 60 patients representing healthy control group. IR was determined using Homeostasis model assessment (HOMA-IR). All patients with CHC underwent liver biopsy and the liver specimens were evaluated with the Ishak scoring system for viral liver disease. Body mass index (BMI) was calculated for all subjects, and serum insulin, C-peptide, and lipoprotein levels were also measured.

Results: Resistin level was higher in patients with CHC (23.1 ± 14 ng/ml in patients with CHC and 23.4 ± 16.5 ng/ml in patients with CHC and diabetes) and in those with SHNA (20.7 ± 13.09 ng/dl) and lower in patients in the control group (9.3 ± 3.6 ng/ml) (p = 0.0001). In patients with CHC, serum resistin levels increased parallel with increasing body mass index (from 18.4 ± 12.12 ng/ml in normal weight patients to 24.5 ± 12.2 ng/ml in patients with grade I obesity and 20.3 ± 40.08 ng/ml in patients with grade II obesity (p = 0.001)). Resistin correlated positively with BMI (r = 0.288, p = 0.003) and HOMA-IR (r = 0.36, p = 0.0001). In patients with CHC increased level of resistin was risk factor for SH (OR = 5.4, 95%CI 1.9-14.9, p = 0.001). Resistin level was higher in patients who have more severe liver inflammation (30.3 ± 20.2 ng/dl versus 30.2 ± 11.6 ng/ml, p = 0.042). Resistin was correlated with histological activity, increasing with its increase (p = 0.038) and fibrosis (p = 0.0001).

Conclusions: This study demonstrated the relationship between resistin and IR and resistin and hepatic steatosis in obese patients with CHC. These data suggest increased resistin levels in CHC patients which are related to histological severity of the disease. There is an explanation for this finding, as resistin is related to IR, it may contribute to hepatic steatosis by promoting IR and insulin signal changes in hepatocytes.

A-195
CLINICAL IMPACT OF BACTEREMIA IN ESCHERICHIA COLI COMPLICATED URINARY TRACT INFECTIONS

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Objectives: Escherichia coli is the primary cause of urinary tract infections (UTIs). Routine performance of blood cultures is not recommended in patients with uncomplicated UTIs and they are mainly reserved for complicated infections. The goal of this study is to determine whether E. coli complicated UTIs with positive blood cultures (PBC) have a worse prognosis than those with negative blood cultures (NBC).

Material and method: A retrospective study of cases with complicated community-acquired UTIs caused by E. coli admitted to a Department of Internal Medicine of a university hospital, from October 2007 to March 2011. Clinical and microbiological variables were collected by chart review. Outcomes were compared between cases with positive and negative blood cultures. SPSS 18.0 was used for statistical analysis.

Results: Blood cultures were obtained in 95 cases (42.2%) of 225 cases with E. coli complicated community-acquired UTIs. Blood cultures were positive in 54 cases (55.6%), and in every case E. coli was isolated in concordance with urine cultures. Therefore, no single case required a change in antimicrobial treatment based on blood culture results. Age 76.7 ± 11.36 PBC vs 74.14 ± 19.49 NBC, p = 0.420), male sex (31.4% PBC vs 39.5% NBC, p = 0.409), previous use of antibiotics (40.7 PBC% vs 34.8% NBC, p = 0.555), a history of recent hospitalization (27.7% PBC vs 39.5% NBC, p = 0.221), health care related infection (42.59 PBC% vs 51.16% NBC, p = 0.4), APACHE II (12.89 ± 4.53 PBC vs 11.67 ± NBC, p = 0.181) and severe sepsis or septic shock (46.29% PBC vs 30.23% NBC, p = 0.107) were not different between bacteremic and non-bacteremic cases. Length of stay in hospital (7.57 ± 4.50 vs 8.86 ± 8.80, p = 0.352), global hospital mortality (3.7% PBC vs 2.32% NBC, p = 0.697) and hospital mortality related to infection (1.85% PBC vs 0% NBP, p = 0.370) were not different between groups with positive and negative blood cultures.

Conclusions: In our study bacteremia in patients with E. coli complicated urinary tract infections was neither associated with more severe infections nor had any influence on outcomes.

A-196
LYME DISEASE PRESENTATION OF SIXTEEN PATIENTS AND REVIEW THE LITERATURE

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Objectives: Analize clinical features, epidemiology, treatment and outcome in a series of patients diagnosed of Lyme disease (LD) in our hospital between August 2008 and December 2011.

Material and method: We conducted a descriptive and retrospective study of a sample of patients diagnosed of LD in Cabueñes Hospital (with a population of 300.000 inhabitants). Microbiology department reported all the suspected cases with positive Borrelia burgdoferi serology. When a positive serology (Elisa & Immunoblot), IgM, and/or IgG seroconversion, and compatible clinical symptoms, the diagnosis of "active" Lyme disease was done. Statistical Package for the Social Sciences (SPSS) was used for the analysis.

Results: Sixteen patients were diagnosed. Thirteen (81, 3%) were males and three (18, 8%) were females. The mean age was 48+/-18 years. Nine (60%) of then live in the rural area, and six (40%) in the urban one. There was a tick bite in 10 (62.5%) cases. The main clinical features were erythema migrans (EM) in 12 (75%), influenza-like symptoms, fever and fatigue in 2 (12.5%), and neurological symptoms -radiculopathies in 2 (12.5%). One patient develop a complete atrioventricular block, and another one knee arthritis. Laboratory test were unremarkable, highlighting slight elevation of erytrocite sedimentation rate (ESR) and liver function test (TGO, TGP). Arthrocentesis was performed in one patient resulting in inflammatory fluid. Fifteen patients underwent antibiotics treatment, mainly with oral doxycycline –in 10 (62.5%), oral amoxicillin clavulanic – in 2 (12.5%), and intravenous ceftriaxone in 3 (18.8%) patients because of neurologic or cardiac symptoms. Antibiotic treatment was maintained an average of 22 ± 7 days (10-30). The outcome was favorable in 100% of patients -10 (62.5%) attending review.

Discussion: Lyme disease (LD) is caused by spirochaetes of the Borrelia burgdorferi spp, which are transmitted by Ixodes spp ticks. The epidemiological characteristics and clinical features are similar to those previously published. The signs and symptoms of LD are diverse. LD is evident in three stages, the first of which includes erytema migrans (EM). Cardiac involvement is an uncommon manifestation ocurring in up to 8% of patients. Arthralgias and arthritis of the knee may be evident. Radiculopathies have rather nonespecific symptoms, and may cause asymmetric pain in the limbs. Microbiological or serological confirmation of LD is needed for all manifestation of the disease -except for EM. The criteria for serological diagnoses are not standardised, seropositivity due to past infection may be included, and the diagnosis of some chronic forms of LD is currently controversial. There are patients with positive IgG serology for years, and many of them have received proper antibiotic therapy. It has been suggested that the overdiagnosis and overtreatment may be an important problem. Antibiotic treatment depends on the LD stage. Early and localized stages are usually treated with oral doxycycline or amoxicillin. In more advanced stages, treatment with parenteral ceftriaxone or cefotaxime are recommended. Symptomatic patients with cardiac Lyme borreliosis with high grade atrioventricular block should be closely monitored, and temporary cardiac pacing might be necessary.

Conclusions: 1. The epidemiological characteristics, age, sex, and clinical features are similar to literature. 2. A positive serological test does not mean that a patient necessarily has "active" Lyme borreliosis, it would be advisable not routinely treat asymptomatic patients or adequately treated patients.

A-198
HOME CARE FOLLOW-UP OF SEVERELY NEUTROPENIC PATIENTS WITH ACUTE MIELOBLASTIC LEUKEMIA

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Objectives: To evaluate the clinical evolution, demand for assistance and complications arising during the home care follow-up of patients with acute mieloblastic leukemia (AML) in aplasia phase following chemotherapy treatment.

Material and method: Prospective descriptive study of patients with neutropenia following AML chemotherapy treatment admitted to our Home Care Unit (HCU) from 1997 to 2012. We use specific protocols of mucositis and neutropenic fever according to haemathology service.

Results: We analyze 35 neutropenic episodes in 20 patients with AML, 13 males/7 females. The median age was 66 years (15-91).

Patients were referred from ambulatory consultation and hospitalization in 17 and 18 cases. The median of previous hospitalization days was 9 (3-17). All patients required central or peripheral venous access (31 and 4 cases). 32 patients (91.42%) received oral prophylactic antibiotherapy. The median of days below 100, 500 and 1,000 PMN/ml were 6 (0-19), 13 (2-25), and 17 (3-32). Neutropenic fever was developed in 22 cases. First episode of neutropenic fever was developed on 4th day (1-28) following home care admittance and 6th day of neutropenia (1-28). Neutropenic fever had clinical documentation in 12 cases (54.44%) and 8 episodes (36.36%) had microbiological documentation. In these cases, the isolated germs were: 3 negative coagulase Staphylococcus, 2 Escherichia coli, 1 Streptococcus mitis, 1 Enterobacter cloacae and 1 Aspergillus fumigatus. Blood cultures were the main source of isolation in 7 cases. Epidermidis sthaphylococcus was the main germ related with catheter infection. No multiresistant germ was isolated. Cephalosporins where used as initial empirical antibiotherapy in 14 episodes (63.63%) and carbapenems in 5 (22.72%). Teicoplanin combined with other antibiotics was used in 18 cases (81.81%) and antifungal therapy was added in 5 cases. In 7/22 episodes the treatment was modified according to the bacteriological results or clinical evolution. Only in 3 cases (8.57%), patients needed to be admitted to inpatient care, (two of them after medullar recovery): 2 due to poor evolution of fever and 1 due to urologic pain not controlled at home. No patient died during neutropenia period. The median days of hospitalization in HCU was 22 days (3-50). In 91% of cases, patients were treated at home in the phase of neutropenia and were discharged after haematological recovery. The median of visits were 27 for nurses (9-52) and 15 for doctors (1-33). Family collaboration was considered good in all cases.

Conclusions: Our study shows that the treatment of neutropenia in patients with AML supervised by an expert medical team with standardized procedures and protocols is an effective and safe alternative. The hospital readmission was very low and no patients died during neutropenic period. It is important to emphasize that no multiresistant germs were isolated. No patients died from causes related to neutropenia.

A-199
MALARIA: A 10-YEAR RETROSPECTIVE STUDY AT A CENTRAL HOSPITAL

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Objectives: Malaria is the most important parasitic disease of humans, causing hundreds of millions of illnesses and probably over a million deaths each year. Travelers, who are generally nonimmune, are at high risk for severe disease from falciparum malaria at any age. Although some patients with uncomplicated Plasmodium falciparum malaria can be treated successfully in an outpatient setting, patients with no immunity against the disease are at increased risk for sudden development of severe complications. With this casuistic we pretend to characterize the patients with diagnose of malaria, in a central hospital, during 10 years and 5 months (January 2002-May 2012).

Material and method: After obtaining the cases with malaria from Maxdata, we analyze every patients' clinical files.

Results: We analyzed 36 cases of malaria. Thirty five patients had positive peripheral-blood smears and one patient had positive plasmodium DNA. Males were more commonly affected (80% of cases) and the mean age was 36.5 years [6-70 years]. Approximately 60% (21 patients) had arrived from Angola and most of them lived in our country (83%). Five patients completed correct prophylaxis and 13 already had malaria in the past. Almost all patients had fever (94%) and the rest complained about gastrointestinal symptoms (67%), headache (47%) and myalgias (42%). The commonest laboratory findings were elevated erythrocyte sedimentation rate or C-reactive protein (92% of patients), thrombocytopenia (86% of patients) and liver function abnormalities (86% of patients). Others laboratory findings include anemia (61% of patients) and low leukocyte counts (33% of patients). Fourteen patients had clinical and laboratory criteria for severe malaria. Only 4 patients were treated as outpatients. Thirty two patients required hospitalization, 10 of them in an intensive unit care. The mean length of stay in hospital were 8.6 days [2-45 days]. The most common treatment was the combination of quinine plus doxycycline (72% of patients). One patient died.

Discussion: Although almost of the patients had no immunity against the disease, with the prompt diagnose and appropriately treatment all of them, except one, had a favorable evolution.

Conclusions: Malaria is an infrequent diagnosis in our hospital and was always acquired in a malaric-endemic country by a returning traveler or emigrant (most of them from chloroquine resistant areas).

A-200
EVOLUTION OF BIOCHEMICAL AND VIROLOGIC PARAMETERS AFTER SIMPLIFICATION TO ETRAVIRINE (ETV) IN PRE-TREATED HIV PATIENTS

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Objectives: ETV has shown a good lipidic profile and low hepatotoxicity at randomized studies. However, there is little data about the evolution of lipids and transaminases in HIV patients who have switched to ETV from a previous regimen.

Material and method: Prospective observational study, of pretreated HIV patients in our hospital, who changed to ETV from a previous antiretroviral treatment for any reason. HCV prevalence (with positive PCR-HCV) and fibroscan results in coinfected patients, are registered. Triglycerides (TG), total cholesterol (TC), LDL-cholesterol (LDL-c), HDL-cholesterol (HDL-c), AST/GOT and ALT/GPT are compared at the 6th and 12th month after switching; CD4+ lymphocytes and viral loads are compared at these moments as well.

Results: Overall, 48 patients were included. Changing regimens were based on NNRTI (NNRTI 27%, efavirenz 17%, nevirapine 10%), PIs (PIs 62%, lopinavir 27%, atazanavir 15%, saquinavir 6%, fosamprenavir 4%, darunavir 4%, other PIs 6%), or triple therapy with NRTI (11%). The reasons for changing were dislipemia and lipodystrophy (17% and 12% respectively), hepatotoxicity (12%), digestive disorders (10%) and inespecific asthenia (10%). Baseline CD4+ lymphocyte count was 555 cells/ml (range width 110-2195), and 69% of patients had an undetectable baseline HIV VL (< 40 copies/ml). HCV coinfection was found in 26 patients (54%); fibroscan was performed in 20 of them, 42% showed significant fibrosis (F ≥ 2). At 6th and 12th month, mean TC levels evolved from 195 to 174 and 179 mg/dL respectively; LDL-c decreased from 98 to 93 and 96 mg/dL; and TG dropped from 174 to 133 and 121 mg/dL. No significant clinical change was found in AST and ALT levels; but in 3 patients whose transaminases levels were over 100 mg/dL (two of the HCV+), these parameters came down to normal levels within the next 6 months. CD4+ lymphocytes mean went from 555 to 567 and 513 (in 6th and 12th month respectively). The proportion of patients with undetectable VL at 6th and 12th month was 80% and 85% respectively.

Conclusions: Switching to an etravirine-containing HAART is safe, improving lipid parameters in general, without hepatotoxicity even

in HCV coinfected patients. In our study, hepatic disorders produced by other antiretroviral chemicals improved. Also we found increasing efficacy as it gets a higher proportion of undetectable VL.

A-202
DESCRIPTIVE REVIEW OF 14 MALARIA INFECTIONS IN TOLEDO AREA

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Objectives: Review of epidemiology, clinical manifestations, laboratory and treatment of malaria cases diagnosed from 01/01/2005 to 30/04/2012.

Material and method: Search in digital files (e-docs) of the Hospital Virgen de la Salud (HVS) using the search parameters "malaria" and "paludismo". The cases included were diagnosed both by serology and identification of the parasite in blood. We collected age, sex, nationality, history of recent travel to endemic areas, implementation of prophylaxis, clinical and examination findings and treatment performed.

Results: Of the 19 cases found analyzed 14 that meet the parameters we search. 78.4% of patients were men, mean age 26 years and 6 months, 50% were immigrants from endemic regions with recent travel to their country of origin. 85.7% of cases made trip to endemic region, being the most frequent Mali, 14.3% being immigrants from endemic country, without achieving establish whether they had traveled recently. No patient received appropriate prophylaxis (0%). Patients had fever (100%), asthenia (50%), gastrointestinal symptoms (50%) and musculoskeletal (42.9%) and malaise (28.6%) as more frequent symptoms. 21.7% of patients no signs on physical examination. 35.7% had hepatomegaly and splenomegaly, 14.3% had hepatomegaly isolated and 14.3% had hepatomegaly with splenomegaly and jaundice. Two patients (1.4%) developed severe forms of the disease. The hemoglobin sample mean was 10,878, with standard deviation of 3,181. The mean bilirubin was 1.30, with standard deviation of 1,126. In 85.7% of individuals identified the parasite by microscopic analysis. 78.6% was identified Plasmodium falciparum and 14.3% Plasmodium vivax. As a treatment, 42.9% were performed with Atovaquone-Proguanil for 3 days; 21.4% with quinine-doxycycline and 21.4% with different combinations of antimalarial drugs.

Discussion: Malaria was officially eradicated in Spain in 1964. However, at the present time, hundreds of imported cases are registered in our country each year. Malaria is endemic throughout most of the tropics, predominate in Asia, Africa and some regions of South America. Approximately three billion people living in 108 countries who are exposed. Malaria is caused by parasites of the genus Plasmodium (P), with more than 150 species; being the most frequent P. falciparum and P. vivax, acting as a vector of the disease several species of the genus Anopheles mosquito. The incubation period for P. falciparum infection is about 12-14 days, and for P. vivax and P. ovale is also about two weeks. Groups at highest risk include young children (6-36 months), pregnant women, and travelers to malarious areas that usually have not had prior exposure to malaria parasites or have lost their immunity. Malaria should be suspected in patients with any febrile illness if they have had exposure to a region where malaria is endemic. The initial clinical manifestations are nonspecific, with fever, as the main symptom. They can also appear gastrointestinal symptoms, headache and musculoskeletal symptoms, varying depending on the species of Plasmodium parasite, parasite load and immunologic status of the patient. Diagnosis is made by microscopic examination of blood (blood smear). No method of malaria prevention is fully effective and it is always possible to get infected despite taking prophylactic medications properly. There are several types of antimalarial drugs, so the drug of choice depends on the geographic area to be visited, according to resistance pattern and species of Plasmodium.

Conclusions: Malaria should be suspected in patients with fever and history of travel to endemic regions. P. falciparum usually produces the most severe forms. It is very important to continue anti-mosquito measures and complete successfully prophylaxis, remembering that it is not fully effective.

A-203
EARLY SWITCH FROM INTRAVENOUS TO ORAL ANTIBIOTICS IN HOSPITALIZED PATIENTS WITH COMMUNITY-ACQUIRED PNEUMONIA: A RETROSPECTIVE STUDY

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Objectives: Community acquired pneumonia (CAP) is a common and serious illness with high healthcare costs, usually treated in hospitalized patients with intravenous antibiotics to provide optimal serum levels. The duration of intravenous treatment is an important determinant of length of hospital stay. An early switch from intravenous to oral antibiotics (switch therapy) in hospitalized patients, with evidence of clinical improvement and stability, may allow early discharge, decreased of length of hospital stay, reduced drug costs and adequate patient satisfaction. Objectives: (1) characterize the population hospitalized with the diagnosis of CAP treated initially with a regimen of intravenous antibiotics, (2) assess the patients with clinical stability at day 4 and how many were submitted to switch therapy and (3) compare the clinical cure and length of hospital stay in both groups.

Material and method: Design: Retrospective study of the clinical records of patients hospitalized with CAP in a general medicine ward during 6 months (October 2001 until March 2012).

Results: From the total of 92 hospitalized patients with CAP, 86 fulfilled the study requirements, 46 were female and the mean age was 67.9 ± 3.5. The mean pneumonia severity index (PSI) score was 121.8 (class I 3.5%, II 10.5%, III 30%, IV 43%, V 13%); 59 patients had ≥ 1 comorbidities, such include chronic obstructive lung disease (37.3%), diabetes mellitus (25.4%), congestive heart failure (28.8%), malignancy (6.8%) and chronic neurologic disease (13.6%). The pathogens were identified in 18 patients (sputum 16.7%, blood 38.9%, urine antigens 44.4%) and the most common was Streptococcus pneumoniae (72.2%). Most patients received empirical amoxicillin/clavulanic acid (52%) or a cephalosporin (20%) plus macrolid. At day 4, 54 patients (62.8%) had reached clinical stability criteria (decrease in fever and respiratory rate, acceptable oxygen saturation and blood pressure), but only 11 (20.3%) were submited to switch therapy at that time. In the group of patients with clinical stability criteria that maintained intravenous therapy after day 4, 23 had PSI class IV or V, 17 patients had ≥ 2 comorbidities and 9 (17.3%) underwent a switch from intravenous to oral antibiotic subsequently, being the mean time day 6.8. The mean length of hospital stay was 7.2 days in the switch therapy patients and 11.6 days in patients with intravenous therapy. The mortality was 0% in the early switch therapy group and 4% in the others.

Conclusions: In this study, although limited by a small number of patients, early switch from intravenous to oral antibiotics in patients with CAP, clinically stable, appears to be as effective as continuous intravenous treatment and results in shorter hospital stay. The possible physician relutance to switch, seems to be related with the severity of initial presentation and comorbilities.

A-204
RADIOLOGICAL CHARACTERISTICS OF SEVERE PNEUMONIA AND COMPARISON OF EVALUATIONS BY EMERGENCY PHYSICIANS AND RADIOLOGISTS

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Objectives: To assess the radiological characteristics of severe pneumonia and to compare evaluations made by emergency physicians and radiologists.

Material and method: X-rays from patients with severe pneumonia (hospital admission and CURB-65 ≥ 2) were selected from a prospective cohort of 171 adults diagnosed of pneumonia by emergency clinicians (December 2009 to May 2011). The X-rays were reevaluated by two radiologists who were blind to clinical data. Patients with Barthel Index < 60 were excluded because of concerns about poor X-ray quality and poor prognosis unrelated to pneumonia. Presence, location and resolution of pulmonary infiltrates and pleural effusion on X-rays and computed tomography (CT) were recorded. An interrater reliability analysis using the Kappa statistic was performed.

Results: A total of 75 patients met the inclusion criteria. Four of 75 X-rays considered as radiologically-confirmed pneumonias by the emergency physicians were not verified by radiologists: 2 because of poor quality X-rays, 1 lobar collapse and 1 pachypleuritis. Characteristics of the 71 patients included in the study were: age 79.3 ± 12.9 years old, 71.8% males and Fine Index 128 ± 34.8. A third of patients had healthcare-associated pneumonia. Risk factors for aspiration were recorded in 21.1% patients. Etiologic diagnosis was obtained in 57.6% patients: pneumococci in 11.3%, legionella 5.6%, P. aeruginosa 4.2%, rhinovirus 4.2% and miscellanea in 11.2%. Ten percent of patients died in hospital. The most frequent locations of infiltrates were: multifocal bilateral 32.4%, multifocal unilateral 19.7% and right lower lobe 22.5%. Radiologists reported pleural effusion in 53.5% compared to 16.9% by emergency physicians (interrater reliability: Kappa = 0.14, p = 0.123). CT was performed in 10 (14.1%) patients. Pleural effusion was right-sided in 23.9%, bilateral 18.3% and left-sided in 9.9%. Cavitations were observed in 1/71 X-rays and 1/10 CTs. Radiologic resolution was confirmed in 54.9% p within 3 months of diagnosis. Radiological findings were not associated with the type of pneumonia, a specific pathogen, or mortality.

Conclusions: Almost all severe pneumonias diagnosed by emergency physicians were confirmed by radiologists. The multifocal radiologic pattern was that most frequently observed in severe pneumonias. Pleural effusion was poorly reported by the physicians but was detected by the radiologists in more than half the severe pneumonias.

A-205
CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN PATIENTS WITH COMMUNITY ACQUIRED PNEUMONIA

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Objectives: The aim of the present study was to evaluate the impact of COPD as a comorbid condition on length of hospitalization, mortality during hospitalization and 30-day mortality in patients hospitalized with the diagnosis of Community Acquired Pneumonia (CAP) during the period of 2010-2011.

Material and method: The study was a retrospective study of hospitalized patients with CAP in a secondary care hospital -A protocol was elaborated based on the latest Guidelines of the Portuguese Respiratory Society, which comprised demographic variables, the proposed clinical outcomes (length of stay; death during hospitalization and 30-day mortality), stratification risk of Pneumonia through score CURB65 and PSI (Pneumonia Severity Index).

Results: Among 285 patients with CAP, 52.6% men, 47.4% women, with a mean age of 77.72 ± 12.77. About 63 had a comorbid diagnosis of COPD and 222 did not have COPD. The median length of stay was similar between the two groups 9 ± 6. Applying the PSI score, 98.6% belonged to a class > III. Applying CURB65, 95% had a score > 2, with a mean score of 3.37 ± 1.08. Etiological diagnosis could only be obtained in 22% of patients. Hospitalized patients with COPD showed more infections with Pseudomonas aeruginosa. There were 52 deaths during hospitalization, 12 cases among patients with COPD. The 30-day mortality however was superior in patients with COPD 8% versus 10% (p = 0.01).

Discussion: In the present study we found no statistically significant correlation between mortality during hospitalization and the existing comorbidity condition of COPD, as in the PORT Cohort study from which PSI derived. Nevertheless, 30-day mortality was more frequent in the group of patients with COPD. There was no correlation between the length of stay and the presence of COPD, which is probably due to the existence of other interfering variables such as age and the presence of other severe co-morbid conditions.

Conclusions: There was no statistically significant difference in mortality during hospitalization in patients with or without COPD. However, 30-day mortality was significantly superior in COPD patients. There was also no statistical difference between the length of stay, another clinical outcome evaluated. There was a statistically significant correlation between score CURB65 and the existence of COPD as a comorbidity once applying Chi-square Test (p = 0.005), which was not true for PSI (p = 0.4).

A-206
LUNG ABSCESSES IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Lung abscesses (AP) are necrotic parenchymal lung cavitations caused by microbial agents. It's rare and associated to a variable mortality, between 5 and 75% depending on the pathophysiology of underlying diseases. Objective: To characterize patients with lung abscesses admitted in an Internal Medicine Department between January 1, 2000 and June 30, 2011.

Material and method: A retrospective study of clinical consultation and statistical analysis.

Results: 23 patients with lung abscesses were included: 52% were men; 57% were admitted between 2009-11, 39% between 2005-08. Mean age was 72 years [27-97], 61% over 75 years. 43% came from institutions. Main diagnosis at admission time: 65% of pneumonia [43% community acquired, 13% healthcare associated and 9% nosocomial], 17% resulting from aspiration, 5% with empyema, 5% with squamous cell carcinoma, 5% of dental caries and declared alcohol, 5% of chronic obstructive pulmonary disease. Almost 78% of patients presented with more than 2 risk factors and other comorbidities, corresponding to 70% of cardiovascular diseases, 43% presented sequelaes of stroke and other neurological disorders, 22% with diabetes, and 17% had

smoking habits. 86% presented with acute manifestations. Anatomical position of abscesses: 43% at right lower lobe, 30% at right upper lobe, 24% at lower left. The agents more often found were (N = 21): 33% S. aureus methicillin-resistant (MR), 14% P. aeruginosa, 10% K pneumoniae, 10% E. coli MR, 10% with origin on oropharynx flora and 33% didn't present any isolated agent. Antibiotics: 52% were treated with piperacillin + tazobactam (PT), 48% with metronidazole (M), 29% with meropenem/imipenem, 24% of vancomycin, 19% with clindamycin, 14% and 10% with levofloxacin and ceftriaxone. The association PT + M was preferred in 29% of patients. Average duration of antibiotic therapy: 18.8 days [8-34]. Good response to therapy (apyrexia up to 7 days of antibiotic therapy) achieved in 81%. Average duration of hospitalization: 45.9 days [12-256]. Mortality was 4%.

Discussion: Although pulmonary abscess is uncommon, there has been an incidence increase in the last years. The primaries are the majority, which is according with literature (however, not resulting from aspiration pneumonia). Although the isolated agents are associated with worse prognosis, there was a good response in 79% of cases, with 96% survival rate - a good result according to the literature. All of them were prior submitted to antibiotics, which influenced the microbial results. Costs related with these admissions are high (exams, antibiotics, and length of hospital too long).

Conclusions: The incidence of pulmonary abscess increased in our sample. The characteristics of the Internal Medicine Department patients has been changing along the last years: older patients (highly dependent) and more resistant agents envolved in nosocomial infections. These are associated with worst prognosis. New discoveries and uses of antibiotic have allowed good outcomes through the last decade. On the other hand, resistant microbial agents are also consequence of misuse of these therapies. These results challenge us to plan an extensive study in order to obtain new epidemiological findings and reflect about therapeutic practice.

A-207
SERUM LEVELS OF VITAMIN D IN HIV-INFECTED PATIENTS

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Objectives: Vitamin D deficiency has reported to be high prevalent in HIV-infected patients. Detectable HIV viremia, HAART therapy and ethnicity were significantly associated with vitamin D deficiency. To determine the prevalence of vitamin D (25(OH)D) in HIV-infected patients and to compare with that of HIV-negative patients.

Material and method: We performed a descriptive study in which 176 patients were included, 81 with HIV infection followed up in the office of Internal Medicine and 95 non-HIV patients, who attended the consultation of Endocrinology in a tertiary hospital in Vigo, Spain (latitude 42 ºN). Serum levels of 25(OH)D were determined by immunoassay. Vitamin D status was defined as the following: deficiency as 25(OH)D < 10 ng/mL and insufficiency as 25(OH)D 10-30 ng/mL.

Results: The average age of HIV patients was similar to non-HIV (50.4 ± 9.8 vs 48.6 ± 13.5 years). The proportion of males was significantly higher in HIV (76.5% vs 23.1%, p < 0.005). The body mass index (BMI) in HIV was 26.55 ± 4.66 Kg/m^2 and 28.52 ± 5.808 Kg/m^2 (p = NS) in HIV-negative. The median CD4 lymphocyte count was 524.16 cell/mL and 88.89% had an undetectable viral load. Median levels of serum 25(OH)D did not differ between seropositive and controls [21.5 ± 10.03 ng/ml (range 3-51) vs 23.7 ± 9.5 (range 7-55) respectively. The prevalence of deficit of 25(OH)D was higher in HIV (13.6% vs 7.4%), while insufficiency was similar (67.9% vs 69.5% p = NS). It was observed a significant inverse correlation BMI and levels of 25(OH)D in seronegative patients. Serum levels of vitamin D and the degree of deficiency were not associated with HAART.

Conclusions: HIV- infected patients have a high prevalence of 25(OH)D deficiency that does not differ significantly from seronegative controls. There were not apparent relationship between HAART therapy and serum levels of 25(OH)D.

A-208
DESCRIPTIVE STUDY OF MICROBIOLOGICAL ISOLATES IN INTERNAL MEDICINE, UNIVERSITY HOSPITAL OUR LADY OF CANDELARIA DURING THE YEARS 2010 AND 2011

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Objectives: Infectious diseases are a major problem for health services, both in economic terms (direct and indirect costs) and in terms of patients' health. The infection rate depends on each ward, the procedures performed, which antibiotics are prescribed and the local hospital microbial flora. Empirical treatment indicated for these infections depends in part on epidemiological studies of the environment in which they are found, and their antimicrobial sensitivity profiles. Objective: to study microbiological isolates in the department of Internal Medicine, Our Lady of Candelaria University Hospital for the years 2010 and 2011, and describe the antibiotic sensitivity of these isolates.

Material and method: Retrospective descriptive study of microbiological isolates from the Department of Internal Medicine, Our Lady of Candelaria University Hospital for the years 2010 and 2011, and analysis of their sensitivity profiles to commonly-used antimicrobials.

Results: In 2010, 616 isolates were obtained, the most frequent of which being Pseudomonas aeruginosa (20.8%), followed by Escherichia coli (17.5%) and Staphylococcus aureus (17.1%). In 2011, 605 isolates were obtained. The most common microorganism was Pseudomonas aeruginosa (24.42%), followed by Escherichia coli (13.2%) and Staphylococcus aureus (11.91%). In relation to the antibiotic sensitivity of different isolates, Escherichia coli had a sensitivity to carbapenems and tigecycline of 100%, a rate of quinolone resistance of 50%. There was a decrease in the resistance phenotype ESBL (extended spectrum beta-lactamase) from 19.4% to 8%. The genus Klebsiella showed a 100% sensitivity to carbapenems and tigecycline and 30-40% of resistance to quinolones. The percentage of ESBL remained stable at around 20%. Furthermore, Pseudomonas aeruginosa had a sensitivity of around 60% to the antimicrobials used empirically against this bacteria (piperacillin-tazobactam, cefepime and ceftazidime), with imipenem showing some benefit (70%). It also showed a high sensitivity to colistin (95%). Staphylococcus aureus showed 100% sensitivity to linezolid, 99% to glycopeptides (teicoplanin resistant to an isolate), a sensitivity to cotrimoxazole of 99% and an improvement in the percentage of methicillin-resistant S. aureus (MRSA) from 76% to 37%.

Conclusions: The number of isolates and the percentage distribution of different bacterial species over the two years of the study was similar. The bacteria most frequently isolated were Pseudomonas aeruginosa and Escherichia coli. Total ESBL and MRSA

decreased. These studies of epidemiology and susceptibility profiles in our area should be considered when establishing correct empirical antibiotic therapy protocols. The microbiological monitoring of infections is essential for the proper management of antibiotic therapy for the patient.

A-209
TUBERCULOUS MENINGITIS: A DESCRIPTIVE AND COMPARATIVE STUDY WITH OTHER FORMS OF TUBERCULOSIS IN VIGO (NW OF SPAIN)

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Objectives: Tuberculosis remains an important health care problem in Galicia, the area with highest prevalence in Spain. The aim of this study was to describe the clinical characteristics of tuberculous meningitis (TBM) in a Healthcare Area in South Pontevedra (Vigo, NW of Spain).

Material and method: A retrospective study was performed of all patients with diagnosis of TBM in Meixoeiro Hospital, covering an urban and rural area with a population reference of 167,000 inhabitants > 14 years in the South of Pontevedra. Cases of TBM were retrieved in the period 1996-2011 from the Minimum Basic Data Set at hospital discharge (Diagnostic code 013.0 of the International Classification of Diseases 9th ed, ICD-9CM). For a purpose of comparison cases of TBM+ and without meningitis discharged at Internal Medicine Service between 2001 and 2011 were used.

Results: Thirty-two cases of TBM were studied. Clinical data are shown in table 1. We compared also 23 of these patients with TBM+ and 83 discharged in Internal Medicine without meningitis (TBM-) (2001-2011). Age [50 ± 18 (TBM+), 51 ± 21 (TBM-)] and sex [men, 61% (TBM+), 60% (TBM) were similar. VIH coinfection was higher for TBM (26% (TBM+) vs 7% (TBM-), $p < 0.05$). Mortality also was higher in TBM but that not reach statistical significance [13.0% (TBM+) vs 4.8% (TBM-); $p = 0.352$]. In the whole period 1996-2011 microbiological diagnosis was obtained only in a third of cases in CSF and in another quarter there was a sputum culture +. In this period 4 antituberculous drugs were used in 87%, corticoids in 47%, adherence was good in 75% and the global mortality was 13%.

Discussion: MTB is often difficult to diagnosis and a combination of clinical, radiological, analytical and microbiological data can afford the diagnosis. This is important because the mortality (13%) remain high, although it seems lower than other historical series (nearly 21%; Azuaje et al. Enferm Infecc Microbiol Clin. 2006;24:245-50).

Conclusions: Tuberculous meningitis is not uncommon in our healthcare area. It is often difficult to diagnose and a combination of clinical and complementary data can offer a reasonable suspicion of the diagnosis.

Table (A-209)

Nº Cases	32
Age < 65 years (%)	88
Sex (men)(%)	56
HIV + (%)	28
ADA CSF (> 6 U/l)(%)	84
CSF culture + (%)	31
PCR + (in 25)(%)	28
Death (%)	13

A-210
REVIEW OF 97 CASES OF INFECTION BY S BOVIS

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Objectives: Streptococcus bovis is an important cause of bacteremia, infective endocarditis (IE) and septic shock in adults. We report causes of S. bovis infection in a series of patients.

Material and method: We report 97 cases of S. bovis infection amongst a range of hospitals (Ávila, Burgos, Soria, Palencia) in a region of Spain (Castilla y León). The study was conducted from 2007 through 2009.

Results: Ninety-seven subjects were included in the study. Men: 41 (mean ± SD, age = 71.6 ± 19.4). Women: 56 (mean ± SD, age 71.2 ± 15.9). Bacteremia occurred in 48 patients (pts) (49.5%); source of bacteremia was: IE (5 pts), surgical/non-surgical site infection (4 pts), peritoneal fluid (3 pts), biliary tract (1 pt), perianal abscess (1 pt), lung (1 pt), urinary tract (1 pt) and isolated bacteremia (32 pts). No bacteremia was found in 49 pts (51.5%); in these 49 cases, infection sources were: urinary tract (16 pts), surgical site infection (11 pts), non-surgical site infection (8 pts), biliary tract (6 pts), peritoneal fluid (3 pts), pleural fluid (1), synovial fluid (1 pt), ocular (1 pt), bronchial lavage (1 pt) and vaginal fluid (1 pt). Antibiogram became available in 91 patients: 90/91 (99%) were susceptible to penicillin. Our isolates showed most commonly resistance to ciprofloxacin (17/91, 18.7%) and clindamycin (10/91, 11%). Gastrointestinal cancer (cancer history or detected during the study period) was found in 22 pts (22.7%); other cancers appeared in 16 pts. Overall mortality was 21.6% (21 pts): among them, bacteremia was found in 10 cases (11 pts without bacteremia). S. bovis-related mortality was 28.6% (6/21) (all of them with bacteremia, one of them with IE). Other causes of mortality accounted for 71.4% (15/21).

Conclusions: In our study, S. bovis-infection did not predispose toward bacteremia (49.5 versus 51.5%). The most frequent origin of infection was the surgical/non-surgical site of infection (23/97: 23.7%) followed by the urinary tract (17/97: 17.5%). IE-frequency was low (5/97: 5.2%). Most S. bovis isolated were susceptible to penicillin (99%). Resistance to ciprofloxacin was 18.7%. Overall mortality was 21.6% (21/97). S. bovis-related mortality was 28.6% (6/21) (all of them with bacteremia).

A-211
REVIEW OF SHYPHILIS CASES IN A COMMUNITY HOSPITAL OVER THREE YEARS

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Objectives: To estimate the incidence of shyphilis in our area. Make a demographic analysis, describe the main symptoms, complementary studies performed, treatment and follow-up was done.

Material and method: Retrospective and descriptive analysis made from the systematic review of medical records of patients with positive serologic test for shyphilis; non-treponemal-test

Table 1 (A-211). Age distribution

Number of cases	1	6	4	3	2	0	1
Age (years)	< 20	20-30	31-40	41-50	51-60	61-70	> 70

Table 2 (A-211). Symptom guide to diagnosis

Bone lesion	Visual disturbance	Genital ulcers	HIV protocol	Risk sexual contact	Neurological symtpom	Skin lesion
1	1	2	2	3	3	5

(Veneral Disease Research Laboratory; VDRL/ rapid plasma reagin;RPR) and treponemal-specific tests (Treponema Pallidum Haemagglutination; TPHA) between the years 2009 to 2011 in a community hospital.

Results: We found 17 patients with reaginic and no reaginic positive serology for shyphilis in our area in the three years. The annual incidence was 8.75 cases/100,000 hab in 2009, 5 cases/100,000 hab in 2010 and 7.5 cases/100,000 hab in 2011. The distribution was: 15 males and 2 females, the highest prevalence is observed between 20 and 50 years old, cutaneous manifestations are the predominant symptom leading to diagnosis. Human immunodeficiency virus (HIV) serology is requested for all patients but not hepatitis B virus (VHB) serology although both share the same pathway of transmission. Lumbar puncture is performed to rule out neurosyphilis in 7 patients (only 1 case positive). After diagnosis 10 patients were untreated (3 had been treated, 3 were treated by their primary care physician and 1 patient was followed up). All patients were treated with penicillin. 9 patients failed to follow up. Of the 8 patients followed up only 1 patient had no reduction in non-reaginic antibody titers.

Discussion: The incidence of syphilis in our area is higher than average incidence in our country. The clinical presentation is highly variable but ulcer or chancre at the infection site at onset of illness and maculo-palular skin lesions on the trunk, palms and soles in the secondary phase are characteristic. Differential diagnosis with other sexually transmitted diseases is required and screening for gonorrhoea, chlamydia, hepatitis B, and HIV is mandated. The most common diagnosis is serological; treponemal tests are more specific and usually remain positive for years, non-treponemal test are used to monitor disease activity and treatment efficacy, also is performed in cerebrospinal fluid to rule out neurosyphilis. All new diagnosis of syphilis should be treated, penicillin is still the treatment of choice for all stages. Monitoring should be done to rule out treatment failures.

Conclusions: Syphilis incidence is rising all around the world since 2000 due to increase of unsafe sex practices. The clinical presentation is heterogeneous and Physicians in all specialties need to be able to recognise the signs and symptoms of a disease that was believed close to disappear.

A-212
HIGH RATE OF EXTENDED-SPECTRUM BETA LACTAMASE-PRODUCING IN BACILLI GRAM-NEGATIVE BACTERAEMIAS

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Objectives: Gram-negative bacilli (GNB) are the second most frequent group of microorganisms isolated in blood cultures. The aims of the study were to determine the clinical, therapeutics and microbiological characteristics of GNB isolated in blood cultures and to identify mortality-associated risk factors.

Material and method: GNB bacteraemias, in patients older than 15-year-old, were prospectively gathered between January and December 2011. Epidemiological characteristics, source of infection, empirical treatment as well as appropriate antibiotic and evolution were reviewed. Bloodstream infections were classified as community-acquired bacteraemia (CAB), nosocomial bacteraemia (NB) or health-care associated bacteraemia (HCAB).

Results: Two hundred and three GNB bacteraemia were identified during the study period. They were classified as CAB 46%, NB 33% and HCAB 21%. The mean age of the patients was 65 ± 17.0 years in NB, 74 ± 16.8 years in CAB and 69 ± 14.2 years in HCAB p = 0.0001) and 50% were male. Most frequent sources of infection in CAB were urinary (25% NB, 59% CAB, 41% HCAB, p = 0.0001) and biliary tract (9% NB, 20% CAB, 2% HCAB, p = 0.012) and catheter-related bloodstream infection (CRBSI) in NB and HCAB (28% NB, 1% CAB, 21% HCAB, p = 0.0001). No differences were found in abdominal source of infection prevalence between the three groups (22% NB, 13% CAB, 19% HCAB, p = 0.37). The most common empirical treatment was beta-lactam antibiotics, especially in CAB group (37% NB, 75% CAB 50% HCAB, p = 0.0001), followed by carbapenems in NB (54% NB, 16% CAB, 38% HCAB, p = 0.001) and quinolones (8% NB, 13% CAB, 15% HCAB, p = 0.44). Antipseudomonal antibiotics were used in 56% of cases (75% NB, 33% CAB, 65% HCAB, p = 0.0001). Empirical treatment was inappropriate in 17% of cases (22% NB, 13% CAB, 22% HCAB, p = 0.32). Microorganisms isolated were E. coli (59%, 39% NB, 79% CAB, 48% HCAB, p = 0.0001), E. cloacae (7%; 6% NB, 3% CAB, 18% HCAB, p = 0.007), K. pneumoniae (6%), S. marcescens (4%), P. aeruginosa (4%), A. baumannii (3%), P. mirabilis (3%). The 20% of isolated GNB were quinolone-resistant (24% NB, 15% CAB, 23% HCAB, p = 0.34) and 3% carbapenems-resistant (all of these were NB: 2 P. aeruginosa, 4 A. baumannii, and 1 B. cepacia). Eleven GNB were multidrug-resistant (9% NB, 2% CAB, 7% HCAB, p = 0.16). From a total of 120 E. coli, 18 (15%) were extended-spectrum beta-lactamase producing (ESBL) (27% NB, 11% CAB, 14% HCAB, p = 0.15). Risk factors for ESBL E. coli were prior antibiotic (OR 3.6, IC 1.3-10.2) and prior quinolone therapy (OR 7, CI 1.6-31.2). Among these patient inappropriate antibiotic was more frequent (47% vs 8%, p = 0.001), however mortality rate was similar (17% vs 12%, p = 0.7). Thirty three of patients died (16%), with a high rate among NB and HCAB (22% NB, 9% CAB, 23% HCAB, p = 0.03). Risk factors associated with mortality were ICU-stay (OR 4.5, CI 1.81-11.19) and prior antibiotic therapy (OR 2.4, CI 1.15-5.2). Nevertheless, association between mortality and inappropriate empirical treatment could not be demonstrated (27% vs 17%, p = 0.31).

Conclusions: High rate of ESBL E. coli bloodstream infections was detected, especially in nosocomial bacteraemia. Risk factors for ESBLE were prior antibiotic and prior quinolone therapy. Inappropriate therapy rate was elevated in patients with ESBLE, although this was not associated with higher mortality.

A-213
EPIDEMIOLOGY, CLINICAL AND ANALYTICAL CHARACTERISTICS OF AN OUTBREAK OF TRICHINOSIS IN THE AREA OF TOLEDO

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Objectives: To analyze the clinical, analytical and epidemiological characteristics of patients of an outbreak of Trichinella spiralis in Toledo (Spain), in February 2012.

Material and method: All the potential patients were identified based on a list of all the Trichinella's serology tests requested in our area during February and March 2012. We reviewed the symptoms and indications taken from the medical histories, both of Primary Care and the Hospital (admissions to the Hospital, visits to the Emergency Department and visits to the Internal Medicine outpatient clinic). We collected the values of the liver function tests, the presence of eosinophyilia and the results of the serologic tests of each patient. Every patient was classified as a confirmed case (epidemiological contact, compatible clinical symptoms and/or laboratory results, and a positive serology), or a probable case (negative serology) depending on the results. Treatments were compared with the standard recommendations and the response to those therapies was analyzed.

Results: Among the 39 patients to whom serology tests were requested, two were excluded from the study because there was no clinical history recorded. Among the remaining 37, there were 21 men and 16 women, with ages between 7 and 84. They all had the same epidemiological contact: ingestion of meat of a wild boar during a family celebration. The most frequent symptoms were fever (43.24%), myalgias (37.83%) and facial edema (29.72%). Nine of the 37 patients were asymptomatic (only 2 with positive serology). Three patients were admitted to the Hospital; one due to exacerbation of severe COPD in relation with the polymyositis produced by T. spiralis, and two due to severe polymyositis and fever in relation to trichinosis. There were no cases of myocarditis or encephalitis nor of death. 32.5% of the cases had eosinophilia and 51% had an increased CK and/or AST/ALT. We identified 11 cases as confirmed and 13 as probable. Not all probable cases had a second serologic determination performed. The remaining 13 cases, although having had epidemiological contact, did not present any symptoms, abnormal laboratory results or a positive serology. The most commonly used anti-parasitic drug was mebendazol. 78% of the confirmed cases received anti-parasitic treatment (5% with corticosteroids). In 2 cases the specific treatment received was not recorded. Among the probable cases, 53% were treated and only one received corticosteroids.

Discussion: Compared with other published series, the type of predominant symptoms is similar with the exception of migraine that was only present in one of the patients of our study. We have not measured the time from the epidemiological contact to the appearance of symptoms because, in most cases, it had not been registered by Primary Care. On the other hand, the clinical evolution with or without treatment has been favorable in all cases regardless of the treatment chosen. No relation between the severity of symptoms and the title of antibodies has been documented. Two cases that were admitted into the Hospital due to trichinosis, corticotherapy was used for more than five days. The third case, an exacerbation of COPD, could be discharged without having received any anti-parasitic treatment. On the other hand, it's presumable that if a second normalized serology test had been performed to all patients, many of the probable cases could have been confirmed and probably some of them in which the diagnosis of trichinosis was discarded would also have had positive serology.

Conclusions: Preventive measures both in animals of farm and in meat obtained hunting to avoid the consumption of contaminated meat, are very effective to avoid new outbreaks of trichinosis and are customarily performed in our country. The current economic situation of our country favors poaching in many rural areas as ours, which turns an economic problem into a public health problem.

A-214
MEASUREMENT OF SCD14, IL-6, HIGH SENSITIVE CRP, CHITOTHYROSDASE AND PROCALCITONIN LEVELS IN PATIENTS WITH DIABETIC FOOT AND EFFECTS OF HBO THERAPY ON THESE MARKERS

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Objectives: Foot infections in patients with diabetes are common and are associated with high morbidity, risk of lower extremity amputation and the length of hospitalization as well. Diabetic foot infection is often a clinical diagnosis. Systemic symptoms are not always on the foreground. In this study, we aimed to measure levels of SCD14, IL-6, high sensitive CRP (hsCRP), chitothyrosdase and procalcitonin in patients with diabetic foot and to investigate the effects of HBO therapy on these inflammatory markers.

Material and method: The study was designed retrospectively. 30 patients admitted with complaints of leg ulcers, pain, swelling, increased heat, and discharge from wound and diagnosed as diabetic foot infection (DFI) were included in the study. Of these patients, at baseline (prior to antibiotic therapy and HBO), on 15th and 30 days (10th and 20th sessions) blood samples were taken for sCD14, IL-6, hsCRP, chitothyrosdase and procalcitonin levels. Patients received a total of 20 HBO therapy sessions. Sessions were conducted in a 120-minute 5 days per week program at 2.4 ATA. sCD14, procalcitonin, and I-L6 levels were studied by ELISA. Analyses were performed for serum CHT enzyme activity according to the method described by Tunc et al. The measurements of hsCRP were performed by using CRP latex kit with an Olympus AU 600 auto-analyzer and reagent from Beckman Coulter (Brea, CA, USA). The data were evaluated with SPSS 15.0 software. In identification of data, mean ± SD, median, and quarters (1-3 quarters) were used. Friedman test was used for comparing multiple measures within the group, and a Bonferroni corrected Wilcoxon test was used for posthoc comparisons. $p < 0.05$ was accepted as statistically significant.

Results: Mean ages of patients were 29-80 years (mean ± SD, 61.97 ± 11.70). 22 patients were male and eight were female. Diabetes age of patients ranged between 4-30 (17.63 ± 5.73). Most patients (13 people) had Wagner third degree wounds. Serially obtained measurements of sCD14, IL-6, hsCRP, chitothyrosdase and procalcitonin were shown in Table 1. There was a statistically significant difference between baseline and at the result of treatment IL-6 levels ($p = 0.041$).

Conclusions: HBO therapy added to appropriate antibiotic therapy significantly reduced IL6 levels on 15th and 30th days. Although no significant change in hsCRP occurred, at 15th and 30th days, a reduction in accordance with the days of treatment were observed. All these data suggest that appropriate antibiotic therapy, with additional HBO therapy can reduce inflammation.

Table 1 (A-214). SCD14, IL-6, hsCRP, chitothyrosdase and procalcitonin levels measured in diabetic foot patients

	Before HBO		15th day		30th day		
	Orl ± ss	Median (1st-3rd)	Orl ± ss	Median (1st-3rd)	Orl ± ss	Median (1st-3rd)	p*
sCD14	5.84 ± 3.13	6.17 (3.17-8.65)	4.31 ± 1.94	3.95 (2.72-5.67)	5.58 ± 2.06	5.52 (4.37-7.25)	0.104
PCT	0.30 ± 1.19	0.70 (0.40-10.0)	0.14 ± 0.22	0.70 (0.05-0.11)	0.15 ± 0.36	0.70 (0.46-)	0.234
Chilo	109.10 ± 81.93	109.50 (28.0-158.75)	111.13 ± 82.23	114.50 (30.25-179.25)	109.20 ± 85.023	115.00 (26.75-162.00)	0.896
IL-6	14.15 ± 13.94	9.86 (3.82-19.16)	10.26 ± 9.93	6.69 (3.14-13.00)	8.92 ± 8.72	5.38 (2.78-13.03)	0.041**
hsCRP	25.71 ± 34.89	5.95 (2.47-43.06)	15.36 ± 24.66	5.90 (2.86-19.98)	3.44 ± 18.86	4.85 (1.73-9.86)	0.118

A-215
PNEUMOCYSTIS JIROVECII IN ACUTE INTERSTITIAL PNEUMONIA

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Objectives: Acute interstitial pneumonia (AIP) is a rare and fulminant form of diffuse lung injury. It is characterized by the presence of diffuse alveolar damage and rapid progression to severe respiratory failure, which leads to the need of mechanical ventilation in most cases. AIP etiology is unknown, although it has been proposed that infectious agents act as the trigger of the process. Also, recently it has been shown the presence of P. jirovecii colonization in a high percentage of patients with idiopathic interstitial lung diseases; however the presence of this pathogen in AIP remains still unknown. Therefore, this study aims to investigate the presence of P. jirovecii in AIP patients.

Material and method: We identified all cases of biopsy-confirmed AIP treated in our hospital during the last 10 years with available samples of bronchoalveolar lavage (BAL). The presence of P. jirovecii was studied by PCR, using primers for the large mitochondrial subunit gene of this organism. Positive and negative controls in each case were used together with a direct sequencing for establishing the genotype.

Results: We identified 5 cases of AIP (only one female) aged between 48 and 75 years. In 4 cases the symptoms developed in less than a week and all of them suffer from severe respiratory failure without hypercapnia. In all cases admission was required into the intensive care unit and mechanical ventilation. One patient had previous history of "Sicca syndrome" and focal segmental glomerulonephritis treated with oral corticosteroids. The female patient had a breast adenocarcinoma five years prior to the study, treated with radiotherapy plus tamoxifen and was in complete remission when AIP occurred. There were no cases of HIV infection and microbiological culture of BAL samples were negative in all cases. The presence of P. jirovecii DNA was indentified in all 5 cases. Two of them corresponded to the genotype 1 and two to the genotype 3. For the remaining one no amplification was achieved sufficiently for sequencing. Only two of the patients received empirical treatment with cotrimoxazole, one of them was the only survivor to the episode of AIP.

Conclusions: Our data suggest a possible role of P. jirovecii in the development of AIP. However, additional studies are necessary in order to unravel the role of P. jirovecii infection in the pathophysiology of AIP that allow us to design rational strategies for prevention and treatment.

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EMPIRICAL ANTIBIOTICS TREATMENT IN SEVERE SEPSIS

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Objectives: Study the factors which determine empirical antibiotics prescription in patients with severe sepsis at a hospital.

Material and method: We performed an observational, retrospective, non interventionist, cohort analysis in patients who were admitted to emergency room with severe sepsis (infectious fever with systolic blood pressure < 90 mmHg). All the data concerning about geographic variation, coexisting conditions, medications, risks factors of an infection with multidrug –resistant organisms and the results of microbiological diagnostic procedure and hospital mortality were obtained from the clinical charts of emergency room.

Results: 51 patients were included. The mean age was 69 years. Patients with 2 or more chronic disease were 13 (25.5%); 34(66.7%) had one risk factor for multidrug-resistant organisms. The respiratory tract was the most frequent infection (46%), following Urinary tract infection (18%). Patients with organic dysfunction were 16 (31.5%). In relation with the initial approach with empirical antibiotic treatment for communitary microorganism, multidrug-resistant organisms and specific microorganism was 32 (63%), 18 (35%) and 1 (2%), respectively. The total number of blood cultures obtained in emergency room were 47 (94%). The cases of isolation microorganisms were 32 (62.7%); 6 (11.8%) were multidrug-resistant organisms. The antibiotic was change in 22 patients (51%) when they were admitted for hospitalization floor. When we evaluated the reasons to receive the empiric antibiotic in emergency department, we concluded that the organic failure was the most important factor (p = 0.032) regardless other risk factor. There was a trend toward statistically significance between death and multidrug-resistant organism (p = 0.002). It occurred independently of organic dysfunction.

Discussion: Several prospective cohort studies in patients with bacteremia, both community and nosocomial infections, have shown the inadequacy of antibiotic therapy (AB) substantially increases mortality in seriously ill patients. Previous dose of AB, severity of infection and bacteremia are described in literature as independent risk factors of inadequacy. Inappropriate treatment delays the onset of effective therapy, increasing mortality and morbidity. Treatment guidelines for dealing with sepsis patients advise to establish a broad-spectrum antibiotic treatment in patients with septic shock. The presented study shows that prescription of empirical antibiotic treatment in emergency department is essentially based on the severity of the process in which case guidelines advise to expand the antimicrobial spectrum. In our series, cephalosporins (26.76%) and carbapenems (21.13%) are broad-spectrum antibiotics commonly used. It is interesting to

highlight that hospital mortality was associated with isolation of a multi-resistant pathogen. Despite establishing broad-spectrum empirical treatment in the most serious ill patients, 19.6% of the patients died (10) by multi-resistant pathogens. It was found a statistically significant association between hospital mortality and the presence in isolation of a microorganism multi-resistant (p = 0.002) regardless of the data of organ failure. We want to highlight that AB empirical treatment was changed in a large percentage of patients, although this change was made once culture results were known, what showed up that doctors from different units (Emergency and Internal Medicine) had the same initial criterion in the antimicrobial selection.

Conclusions: In our study, the choice of empirical antibiotic treatment at admission to emergency room of patients affected of severe sepsis is based upon data of organic dysfunction without taking into account the site of infection, comorbilities or risk of an infection with multidrug –resistant organisms. This point is important considering the currents reports talking about hospital mortality and the isolated multidrug-resistant organisms.

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NUMBER CASES CAUSED OF FATAL PNEUMONIA CAUSED BY STREPTOCOCCUS PYOGENES (SP) DURING WINTER OF 2012 IN A SPECIALIZED HOSPITAL FROM SAS

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Objectives: Infections caused by SP can be fatal and even became to death in a short time. Our goal is to know the clinical profile and development of patients (pt) with severe SP pneumonia in our Centre.

Material and method: Patients hospitalized with SP pneumonia from January-March were included. Variables studied: age, sex, admission department, comorbidity, symptoms, treatment and clinical develop. Data were analyzed using descriptive study.

Results: 4 patients with fatal SP pneumonia requiring ICU admission were analyzed. 4 patients (50% men) between 11 to 64 years old. 100% referred from Emergency department. Symptoms: 100% fever, 75% cough, 75% hypotension, 50% chest pain and brokenness, and individual clinical: diarrhea, hemoptysis and epistaxis. Comorbidity: a patient treated with MTX for psoriasis, two patients with cardiovascular risk factors (HTN, DM, dyslipidemia), and the youngest without known risk. Treatment initiated: Pt 11 years old: piperacillin/tazobactam as empirical therapy, it was subsequently replaced by ampicillin, gentamicin, cloxacillin. Pt 41 years old was treated first with ceftriaxone and levofloxacin; being afterword clindamycin specific therapy. Pt 42 years old was treated first with levofloxacin, ceftriaxone, linezolid and fluconazole. Due torpid develop ceftriaxone was retired and clindamycin and meropenem were included. Finally specific therapy was piperacillin/tazobactam. Pt 64 years was empirical treatment with clindamycin and ceftriaxone, he had good evolution clinical. The average time spent on ICU was 19 days on 75% of patients. Develop: three of them had slow but favorable course (two Pt required MV and pleural drainage); the youngest died.

Discussion: The 4 SP bacteremia case patients referred from Emergency service showed similar sex distribution with 39 years old as average age. Main symptoms: 100% fever, 75% cough and hypotension, 50% chest pain and brokenness. First-line empirical antibiotic therapy was ceftriaxone + levofloxacin in 50% of cases; in 25% was decided to chosen piperacillin/tazobactam and the rest of them were clindamycin + ceftriaxone. Develop was slow but favorable in 75% and 25% died.

Conclusions: It is very important to know the initial clinical of fatal SP pneumonia consistent in fever, chest pain and cough. It has quick and sever course with respiratory and systemic symptoms. Pneumonia complications may include: 75% pleural drainage, 50% toxic shock syndrome and 25% death. The X-rays is very characteristic: shows pneumonic infiltrate on lower lobes (LL) and pleural effusion. Therefore in patient with pneumonia in LL and sudden development of pleural effusions should be suspected SP infection. The mortality rate remains very high despite with antibiotic therapy rapid and appropriate.

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PYOMYOSITIS (PM): THE THREE LEAVES OF A CLOVER

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Objectives: PM is a suppurative infection of the skeletal muscle; it mainly presents as pain and swelling of the involved muscles, with or without fever. Complications may occur. PM has good prognosis if treated properly. The mainstay of treatment is antibiotics and drainage of the abscess. We review three cases of complicated PM.

Material and method: We describe three patients with community-acquired PM caused by methicillin-sensitive S. aureus (MSSA) who presented to our hospital with joint pain, myalgias and/or fever. MSSA bacteremia was in all cases associated. Complete recovery was finally obtained under antibiotic treatment. In patient 1, a 76-year-old-woman with no medical history, the diagnosis of PM, septic pulmonary embolisms and osteomyelitis led us to the discovery of an underlying primary immunodeficiency disease. Patient 2 was an 18-year-old man who had presented to the emergency room with low back pain 5 days before the final diagnosis was established and treatment initiated. His medical records only revealed a dental procedure a month ago with periodontal abscess formation; no antibiotic intake was initially prescribed. He developed bilateral iliopsoas abscesses and septic shock. Patient 3 was a 66-year-old retired farmer-man with no medical problems apart from an anal fistulotomy 30 years ago. He had had pain and swelling in both shoulders for one week, and fever. Imaging studies revealed C6-C7 spondylodiscitis with right prevertebral abscess. A right gluteal abscess appeared after an intramuscular injection during medical care.

Results: Diagnosis and complications in all patients were studied, making use of imaging and laboratory studies. In all three patients blood cultures grew MSSA and muscle involvement was found. In one patient, IgG-kappa monoclonal gammapathy diagnosis was made. Another patient had a dental procedure history. The last patient did not refer any medical records. All patients cured under systemic antibiotic treatment. Only one patient needed drainage. No patient died in our report.

Discussion: PM rarely presents as a primary condition in immunocompetent patients, where the diagnosis is usually delayed. Many other factors increase the risk of developing this condition. Regarding our patients, only one of them was found to be immunocompromised, another one had a portal of entry and the other one had no risk factors. S. aureus is the most common organism isolated. Our review found MSSA infection in all cases. In two of our cases diagnosis was delayed. Any muscle can be affected; in all of our cases, extensive multifocal fluid collections were demonstrated. MRI is considered the gold standard in the

diagnosis of PM, as it was conducted in all of our patients. Ultrasound is helpful in the suppurative phase as demonstrated in our patients. Incision and drainage of the involved muscles, although essential in the vast majority of reported cases, was only performed in one of our patients, with successful and complete illness recovery in all of them. The three of our patients developed complications as described in previous clinical reports. Although mortality is described as high as 10%, no patient in our report deceased.

Conclusions: PM should be nowadays kept in mind in every patient attending for muscle pain, swelling and/or fever, regardless the risk factors. We propose correct and early staging of the illness using imaging and laboratory studies. Early antibiotic treatment should always be initiated.

A-219
EXTENDED-SPECTRUM BETA-LACTAMASE-PRODUCING ENTEROBACTERIACEAE: RISK FACTORS FOR INFECTION

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Objectives: To identify risk factors for infection with ESBL-producing Escherichia coli and Klebsiella pneumoniae and to determine whether clinical outcomes differed among patients with infections caused by resistant organisms and other patients with infections caused by susceptible organisms.

Material and method: This is a retrospective review of all extended-spectrum betalactamase-producing Eschericha coli insolated in our department (Internal Medicine in Universitary Hospital of Salamanca) for two years. All patients for whom culture results were positive for ESBL-producing E. coli from January, 1st 2010 to December, 31th 2011 were eligible for inclusion in the study. Potential risk factors for ESBL-producing E. coli infection were ascertained by means of a review of medical records. Data obtained included age, sex, number of hospital and ICU days prior to infection, and severity of illness, as calculated by means of the Acute Physiological and Chronic Health Evaluation (APACHE) II score. The presence of a central venous or arterial catheter, urinary catheter, or mechanical ventilation was also assessed. Finally, all antimicrobial therapy that was administered in the 30 days prior to admission was documented.

Results: There were 51 cases, 35.29% (18) women and 64.70% (33) males; the mean age was 81.1 years. The average stay in hospital was 25 days (in our hospital is 12.4 days). The 23.5% had arterial or venous central catheter and 76.4% the urinary catheter. Only 5.88% had required ICU admission and mechanical ventilation. 64.7% had received prior antibiotic treatment with amoxicillin and/or quinolones. The average APACHE II score was 12.52 points. The 76.47% of the patients were institutionalized.

Discussion: ESBL-producing Enterobacteriaceae have been reported worldwide, most often in hospital specimens but also in samples from the community. Generally they have been isolated in older people older than 80. Risk factors for ESBL-producing E. coli infection were catheterized bladder, being institutionalized and having received prior antibiotic treatment.

Conclusions: ESBL-producing Enterobacteriaceae are becoming a public health problem, with high economic cost because it increases the hospitalization and use of broad spectrum antibiotics. The age of patients, the presence of urinary catheter and taking antibiotics often seem the most determinant risk factors for these infections, and they should be considered for the choice of empirical antibiotic therapy in severe infections.

A-220
EPIDURAL ABSCESS: RETROSPECTIVE STUDY IN HOSPITAL DEL MAR BARCELONA IN THE PERIOD BETWEEN 2001-2011

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Objectives: Primary: To analyse the frequency, clinical and microbiological features of epidural abscess in Hospital del Mar de Barcelona. Secondary: To analyse the etiopathogenic mechanism, incidence of neurological deficits at discharge and mortality of epidural abscess.

Material and method: Retrospective study of patients with the diagnosis of epidural abscess (spinal o intracraneal). Clinical records of all patients that have been coded for epidural abscess by the ICD.6 CM during the period between January 1st 2001 and 31st December 31st 2010 have been reviewed.

Results: Nine cases were included (6 women and 3 men, mean age 59, range 25-82). The average time between onset of symptomatology and first consult was 6 days. The average hospital stay was of 54.8 days (5-286). Four patients had back pain, 5 fever and 4 neurological deficit. There were no deaths but 1 case still had neurologic deficit at discharge. The first image technique used was MRI in 8/9, CT 1/9. The microbiological agent was recovered by CSF culture in two cases, direct puncture of the abscess in one case and the rest by surgery. The ethiological agent was S. aureus in 6 cases (of which one methicilin-resistent), Staph schleiferi in one case, and in two cases no germ was identified. In 6 cases treatment with betalactamics was initiated. The mean duration of the treatment was 7 weeks. The origin of the infection was previous spine surgery in 3 patients local instrumentation in 2 and 4 had concomitant infections. The location of the abscess was in the cervical spine in 4 cases (C2-D2), 2 lumbar (L2-S1), 2 intracranial and 1 dorsal (D4-D5). The mean of segments affected was four. Seven patients suffered complications (1 fistulization, 1 meningeal affection, 1 spodylodiscitis, 1 septic bone affectation, 2 infections of surgical wound, 1 osteomielitis, 1 pleural effusion).

Discussion: Epidural abscess is a rare but severe entity. In our series the typical clinical trial was infrequent and the diagnosis was made by image techniques. The most common germ was S. aureus related with previous surgery in half of the cases. In our series there were no deaths, and the time-to-diagnosis and length of antimicrobial treatment shorter than what is reported in the literature. This is probably because the post surgery/instrumentation origin in 5 out of 9 cases and the high rate of germen identification. Both location and extension were as usually described. There were no deaths due to epidural abscess in our series, even though high number of complications and large hospital stay have been observed.

Conclusions: Epidural abscess is a rare but severe entity. Early diagnosis and treatment are key for improving the prognosis and reducing the long-term consequences.

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SIGNIFICANCE OF EOSINOPHILIA IN IMMIGRANTS IN THE NORTH METROPOLITAN AREA OF BARCELONA

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Objectives: To assess the incidence of eosinophilia in our experience and to describe the illnesses with which it is associated.

To check the efficacy of our diagnostic protocol & the benefits of the therapeutical approach.

Material and method: A retrospective review from database of patients with eosinophilia (2 determinations > 450 Eos/µl) detected between 2008-2011 at International Health centers, in the Northern Barcelona metropolitan area. The diagnostic protocol included a minimum of 3 stool samples (specific culture for Strongyloides), parasite urine examination, IgE & parasitic serology according geographical origin. Time interval since their arrival to Europe, final diagnose & efficacy of treatment were analyzed.

Results: We visited 727 patients [mean age 35.4 (SD 13.2); male 389(53.5%)]. Origin: South America 290 (39.9%), Africa 255 (35.1%), Asia 160 (22%), Europe 18 (2.5%), Oceania 3 (0.4%), North America 1 (0.1%). Eosinophilia was detected in 58 (8.0%): South America (28), Africa (13), Asia (16) & Europe (1). -Three patients showed high eosinophilia (> 3,000 Eos/µl): 2 Pakistanian with Ancylostoma duodenale (1 normalized & 1 lowered eosinophils after treatment); 1 HIV Dominican woman with lack of adherence & control, affected by an endomyocardial thrombus and stroke (possibly consequence of the very high level of eosinophilia) in which empirical treatment with ivermectine was uneffective. Other 32 patients showed moderated eosinophilia (1,000-3,000 Eos/µl): helmintiasis was detected in 22 of them (15 Strongyloides, 1 Schistosoma spp, 3 Uncinariasis, 1 Toxocara, 1 Ascaris lumbricoides, 4 Mansonella pertans) of which 11 normalized (50%), 5 lowered, 1 persisted eosinophilia & 5 missed follow-up; 2 patients with asthma normalized after exacerbations; 1 case with tuberculosis; 7 cases with no specific etiology of which 6 missed follow-up. -The remaining 23 patients had low levels of eosinophilia (< 1,000 Eos/µl): parasitic infection was found in 11people (5 Strongyloides, 3 Dientamoeba fragilis, 1 Schistosoma spp, 1 Hymenolepis nana, 1 Echinococcus granulosus, 1 Ascaris lumbricoides, 1 Mansonella pertans) of which all normalized after treatment except 2 follow-up losses; 1 had asthma, 1 urticaria, 1 coincidental tuberculosis, all 3 with resolved eosinophilia; from 9 patients without a justifiable cause in 6/9 eosinophils normalized spontaneously. Overall, from the 35 cases with parasitic infection, 20 (55.5%) normalized eosinophilia after etiological treatment, 7 (20%) still had levels above normal range and the remaining 8 (22.9%) missed follow-up. 29 people have lived in Spain for > 5 years and 30 migrated more recently. Degree of eosinophilia was slightly higher in the last group, without reaching significance (1,201.1 vs 1,697.3, respectively; p = 0.07). Although diagnostic efficacy was similar (75.8% and 71.0%), in recently arrived patients the cause of eosinophilia was usually related to parasitic infection, while in longer staying people asthma, urticaria and tuberculosis were the only alternative cause in 17.2%.

Discussion: Eosinophilia is a frequent challenge for physicians dealing with foreign population. An appropriate assessment is required for detection of potentially harmful pathologies. As follow-up of immigrants is sometimes difficult, a quick evaluation is needed.

Conclusions: A systematic approach to eosinophilia in immigrants is helpful. Recently arrived immigrants displayed slightly higher levels of eosinophilia. With higher levels of eosinophilia is more likely to achieve a specific diagnostic. Parasitic infection can be present in recently arrived or in long stay foreigners. Low eosinophilia might normalize spontaneously.

A-222
MODIFICATIONS OF LIPIDS FRACTIONS OR THE CREATININE CONCENTRATION IN HIV-INFECTED PATIENTS TREATED WITH MONOTHERAPY

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Objectives: Protease inhibitor monotherapy is a recognized option in the treatment of human immunodeficiency virus (HIV) infection, either because of simplification of triple therapy, either by secondary effects induced by nucleoside analogues inhibitors of the reverse transcriptase. The objective was the analysis of the modifications of lipids fractions or the creatinine concentration in a sample of HIV-infected patients, treated with monotherapy.

Material and method: Forty six HIV-patients (median age, 47, interquartile range (IQR) 42-51 years; male sex 34 patients (74%); drug users as risk factor, 19 (41%), time from HIV diagnosis, median 20, IQR 10-24 years; hepatitis C virus coinfection, 32 patients (70%), CDC stage C 16 (35%) in monotherapy treatment with either ritonavir-potentiated lopinavir (16, 35%) or darunavir (30 patients, 65%) were studied. Causes of change to monotherapy treatment were simplification (27 cases, 59%) or nucleoside analogues secondary effects (19, 41%). All of them showed undetectable HIV load at the moment of change to monotherapy. Total cholesterol, HDL- and LDL-cholesterol and creatinine serum concentrations as well as HIV load and CD4 T cell counts were analyzed at the beginning of monotherapy and at the end of follow-up (median follow-up, 10 months, range 2-26 months). Data are showed as the median (IQR) of the calculated annual increase of these variables.

Results: Every one of the patients maintained the undetectable HIV load at the end of the follow-up. At the end of the follow-up CD4 T cell count decreased by a median of 35 cells/mm^3 (IQR, -165, +30). Serum concentrations of the cholesterol fractions showed no significant changes during the follow-up (total cholesterol, median +1.50 mg/dl (IQR, -37, +36); HDL-cholesterol, median +0.7 mg/dl (IQR, -5, +23), LDL-cholesterol, median -7.20 mg/dl (IQR, -49, +13). Finally, serum creatinine concentration showed similar values at the beginning and at the end of the study (median change, 0.0 mg/dl (IQR, -0.1, +0.2). No significant differences were detected when patients in lopinavir- or darunavir-based monotherapy were compared.

Conclusions: Monotherapy with either lopinavir or darunavir is a safe alternative in patients with previously suppressed HIV replication. However, no beneficial effects of lipid fractions or renal function was detected when conventional therapy (based in three drugs combination) was changed to monotherapy.

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CONTINUED IMPROVEMENT OF LIVER FIBROSIS AFTER SUSTAINED VIROLOGICAL RESPONSE TO ANTI-HEPATITIS C (HCV) TREATMENT IN HIV-COINFECTED PATIENTS

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Objectives: Progression of liver fibrosis to cirrhosis follows an accelerated course in HCV-infected patients with HIV coinfection. An improvement of liver fibrosis has been described in HCV-monoinfectedpatients after anti-HCV therapy. Data about HIV-HCV

coinfected patients are limited. The objective of this work is to evaluate the changes in liver rigidity in HIV-HCV coinfected patients with chronic hepatopathies after anti-HCV therapy.

Material and method: One hundred and nine HIV-HCV patients were prospectively studied. All of them showed undetectable serum HIV load due to antiretroviral treatment. Anti-HCV therapy with pegylated interferon alpha2a, 180 micrograms/week, and ribavirin (weight-adjusted doses) was administered. Liver rigidity was evaluated by transient elastography at the beginning of the treatment, twelve months after the beginning (end of the therapy) and twelve months after finishing the treatment. Modification of liver rigidity was the dependent variable. The main independent variable was the attainment of a sustained virological response to anti-HCV therapy (SVR). Data are provided as median (interquartile range) or as absolute number (percentage). Wilcoxon's test was performed to analyze differences in the liver rigidity between two different time points.

Results: Characteristics of the patients were: age, 44 (IQR 41-47) years; male sex, 88 patients (81%); evolution of HIV-HCV infection, 21 (16-24) years; baseline CD4+ T cells, 433/mm^3 (IQR 314-651); infection by HCV genotype 1 or 4, 73 patients (67%); liver cirrhosis, 46 patients (42%). A 42% of patients (n = 46) attained a SVR. Characteristics independently associated with this response were the infection by an HCV genotype 2 or 3 and the absence of cirrhosis; interleukin 28B polymorphism CC approaches to statistical significance. Patients with a SVR showed an improvement of liver rigidity at the end of the therapy (baseline liver rigidity, 9.8 kPa (IQR 8.3-17.4); liver rigidity at the end of therapy 8.6 kPa (IQR 6.8-20.8), p = 0.015). Interestingly, liver fibrosis continues improving twelve months after finishing the anti-HCV treatment (7.3 kPa (IQR 4.9-13.2), comparing with baseline, p = 0.000; comparing with the end of therapy, p = 0.003). Changes in liver rigidity were not significant in patients without SVR.

Conclusions: Liver fibrosis improves with the treatment of HCV infection in HIV-coinfected patients with SVR. This improvement continues after finishing this therapy.

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PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY IN HIV PATIENTS IN HOSPITAL UNIVERSITARIO INSULAR DE GRAN CANARIA

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Objectives: Progressive multifocal leukoencephalopathy (PML) is a severe central nervous system infection due to John Cunningham virus (JCV), a pathogen member of the polyomavirus family. This demyelinating disease appears to occur, mostly, in patients with impairment of the immune system, including that with advanced HIV infection and low CD4 counts, that´s why, PML is considered one of the AIDS defining event. Though the use of highly active antiretroviral therapy (HAART) has decreased the incidence of PML, the prognosis is still poor. OBJECTIVES: To determine the epidemiological features of the HIV-infected patients with PML in the HUIGC: sex, age, clinical manifestations, CD4 count and viral load at the diagnostic moment and their survival.

Material and method: Retrospective analysis of the HIV-infected patients who were hospitalized with neurological manifestations between 2006 and 2011 in the Infectious Diseases Unit of the HUIGC and have positive polymerase chain reaction (PCR) for JC virus in cerebrospinal fluid (CSF) samples. The statistical analysis was made with the SPSS software version 19.

Results: Six patients were enrolled. The mean age was 40 ± 9 years and 83.3% were males. The prevalent neurological disturbances were: mental status impairment (83.3%), motor deficits (50%), cerebellar symptoms (33.3%) and epileptic seizures (16.7%). 66.7% had discontinued treatment before the PML diagnosis. CD4 count at the diagnostic moment of the PML was made in all of them. 5 patients (83.3%) had less than 100/mm^3 and only one of them had CD4 300/mm^3 and undetectable viral load in the prior 2 years. From the patients with CD4 < 100/mm^3, one developed the disease within the first month after initiating HAART, being diagnosed of immune reconstitution inflammatory syndrome (IRIS) and two, who already had MPL, presented worsening of the neurological symptoms because of the IRIS developed with the HAART. All the patients with positive JCV-PCR had bilateral multifocal lesions involving white matter in the MRI. The median survival was 10 weeks, only one is still alive.

Conclusions: 1. Within the clinical features, the mental status impairment was more frequent than the motor deficits.2. PML can exist in patients with a good virological and immunological control.3. Only one of them had CD4 300/mm^3 and undetectable viral load in the prior two years.4. 50% of the patient with PML had IRIS.5. Despite of the HAART, PML prognosis is still poor.6. PML treatment is still a challenge in the HIV-infected patient.

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INFLUENCE FACTORS FOR HEPATIC STEATOSIS AND STEATOHEPATITIS IN VIRUS C INFECTED PATIENTS

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Objectives: Chronic hepatitis C virus (HCV) infection is an increasingly common form of non-alcoholic steatohepatitis, in which fat laden hepatocytes trigger an inflammatory response which may evolve to liver cirrhosis and even hepatocarcinoma. The aim of the present study is to analyse the factors related to the presence and/or intensity of liver steatosis and inflammation in patients affected by HCV infection.

Material and method: Eighty four patients were included. Histological evaluation was histomorphometrically assessed (proportion of fat and fibrosis in liver biopsy) and by Knodell and Metavir index. Adipokines (adiponectin, resistin, leptin, TGF-beta, TIMP-1), proinflammatory cytokines (TNF-alpha, IL-6), hormones (insulin, IGF-1, cortisol), malondialdehyde (MDA) and Th-1 and Th-2 cytokines were measured in serum samples. Whole body densitometry was also performed.

Results: In 15 patients, no steatosis at all was observed. Median value was 0.36%, but 14 patients showed more than 5% of fat (% of area) in their biopsies. Patients with marked steatosis (over the median) showed a higher trunk fat mass (T = 2.45; p = 0.017) and left arm fat mass (T = 2.01; p = 0.048), but a nearly significant trend (p < 0.1) was observed with all the fat parameters. Patients with negligible steatosis showed less fat both at right and left arms than patients with steatosis (p < 0.025 in both cases), and also, lower trunk mass (T = 2.12; p = 0.038). Patients with more marked steatosis showed higher cortisol (T = 1.99; p = 0.05), TNF-alfa values (Z = 2.01; p = 0.048), insulin (Z = 2.17; p = 0.03), HOMA index (T = 2.43; p = 0.015) and TIMP-1 (t = 2.44; p = 0.018) levels. Histological activity showed a significant relation with IL-4 (Z = 2.83; p < 0.01) and MDA (T = 2.1; p = 0.04) levels. Patients infected by genotype 3 showed significantly more fat deposits in the liver and a significant trend to have more trunk fat (p = 0.08).

Discussion: Hepatic steatosis and steatohepatitis is a common finding in hepatitis C infected patients. It is known that patients with more adipose tissue release more molecules that could mobilizate free fatty acids from visceral adipose tissue to the liver. On the other hand, hepatitis C virus could damage itself hepatocytes and leading typical histologic alterations such as steatosis, especially in the genotype 3 case. We have found in our study that patients with more marked steatosis showed more adipose tissue (specially trunk fat, that include visceral fat), higher levels of hormones relationated with movilization of free fatty acids from adipose tissue to the liver and higher level of TNF-alpha. It was interesting to find higher level of TIMP-1, a known hepatic fibrosis marker, in patients with more marked steatosis, which could suggest a rol in the leading of steatosis in these patients. There was in this way correlation between histological alterations with higher quantity of adipose tissue and higher levels of some molecules released by the same.

Conclusions: Patients with marked steatosis (more than 5% of liver fat) showed a higher trunk and arms fat mass, higher levels of insulin, HOMA index, cortisol, TNF-alpha and TIMP-1. Patients with genotype 3 showed too more hepatic steatosis that patients with other genotypes. Results of this study are in accordance with the two-hit hypothesis: insulin-resistance, in relation with altered adipokine secretion, is related to liver steatosis, whereas cytokines and increased lipid peroxidation account for the shift to steatohepatitis. We could not disclose a direct cytopathic effect of genotype 3 HC virus neither discard it.

A-226
EFFECT OF ALCOHOL, CANNABIS AND TOBACCO CONSUMPTION ON LIVER STIFFNESS IN HIV/HCV COINFECTED PATIENTS WITH ACTIVE HCV REPLICATION

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Objectives: To assess the effect of cannabis, tobacco and alcohol consumption in co-HIV/HCV individuals. To determine the prevalence of these habits in this population.

Material and method: Liver stiffness (LS) was measured by Fibroscan from 01/2011 to 01/2012 in 306 consecutive individuals on active HCV replication (69 and 31% males and females; median age 47 years; body mass index: 23 kg/m^2, 73 and 27 naïve and non-responders to HCV therapy; HCV genotype 1 or 4: 83%; HCV RNA > 500.000 IU/ml: 70% median CD4: 557 cells/mm^3; HIV RNA bellow detection in 96%). Alcohol, cannabis and tobacco consumption was self-reported at time of LS measurement. Advanced liver fibrosis (ALF) and cirrhosis were defined by a LS > 9.5 Kpa, > 12.6 Kpa and 14 Kpa respectively. Univariate and multivariate statistical methods were used.

Results: Median LS was 7.8 Kpa (success rate > 60%: 96%; Interquartile range < 30%: 86%). The proportion of ALF was 40% and cirrhosis 17.3 and 12%. Alcohol, cannabis and tobacco consumption were reported in 23, 32 and 73% respectively. Heavy alcohol, defined by > 20 g/day in women and > 40 g/day in men, daily cannabis and more than 20 cigarettes/day were reported in 5, 23 and 27% respectively. There was no association between LS and age, gender, BMI, CD4, HIV RNA, HCV genotype, HCV treatment experience, Triglycerides, total and LDL and HDL cholesterol, alcohol, cannabis or tobacco consumption. There was a strong association between tobacco, alcohol and cannabis consumption (cannabis-tobacco: $p < 0.0001$, cannabis-alcohol: $p = 0.056$; alcohol-tobacco: $p < 0.0001$).

Discussion: We have not observed the deleterious effect of alcohol and cannabis consumption on liver fibrosis observed in other studies in HCV monoinfected individuals. The low frequency of alcohol intake and also the association between these habits have to be taken into account when interpreting our results. The use of the self reporting system method at time of LS measure to assess the real drug consumption could have biased our conclusions.

Conclusions: There is no association between alcohol, cannabis and tobacco consumption and LS in HIV/HCV-co individuals with stable HIV infection and active HCV replication. There is a low prevalence of self-reporting heavy alcohol intake but high prevalence of cannabis and tobacco consumption in this population.

A-227
RELATION BETWEEN DIABETES MELLITUS TYPE 2 AND HELICOBACTER PYLORI INFECTION AND CORRELATION BETWEEN HELICOBACTER PYLORI DETECTION WITH BREATH TEST OR ANTIGENS IN FAECES

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Objectives: Helicobacter pylori infection (HP) and diabetes mellitus type 2 (DM) are related with gastrointestinal manifestations. Specifically, in DM those manifestations can be caused by neuropathy or by HP infection. The aim of our study was to establish the frequency of HP infection in patients with DM using simultaneously two different techniques, breath test and antigens in faeces test. We also wanted to correlate the results obtained by these two techniques using the breath test as gold standard.

Material and method: Observational prospective study during two years in hospitalzed patients and outpatient. We collected anthropometric, analytic and comorbidity information of our patients excluding those who were under proton-pump inhibitor treatment as well as those who received antibiotic therapy the previous week. Then, they were conducted both breath test and antigens in faeces test.

Results: We studied 53 patients (17 females, 36 males). The average of age was 72.1 years (standard deviation [SD] = 3.66). Middleweight was 78.26 Kg (SD = 12.97), the average of size was 1.64 cm (SD = 0.08) and the body mass index (BMI) 28.702 (SD = 4.19). 22.6% patients suffered from DM for less than 5 years and the remaining 60.4% for more than 5 years. Regarding the DM treatment, 86.8% were treated with oral antidiabetic agents, and 24.5% with insulin. From the total, 66.03% were well controlled (HbA1c < 7%). Patients referred neither dyspepsia nor gastrointestinal disruption for about 76.9% and 77.4% respectively. The microvascular complications study showed that 13.2% patients suffered from retinopathy, and the remaining 13.2% and 5.7% from neuropathy and microalbuminuria respectively. On the other hand, we collected information about comorbidity and it was obtained that 45.3% of patients had hypertension and 35.8% dyslipemia. Tests were positive for 70.6% by breath test and 43.2% by antigens in faeces. Both trials had a weak agreement (Kappa Index 0.390, $p < 0.001$). Antigen in faeces had a specifity of 93.33% (CI = 95% [77.37-100]) and a sensitivity of 55.82% (95%CI [37.72-74.04].

Discussion: In this study we found that the detection of HP infection in diabetic patients was more than 70% using breath test but 43.1% by antigens in faeces test. The correlation between two

tests was weak and we found out that antigens in faces had a high specifity but low sensitivity.

Conclusions: It is possible to determinate that there is a connection between DM and HP infection. The percentage of diabetic patients with HP infection is high in this study (70.6%), as it was showed in other studies previously. According to our study, it would be better to use the breath test for detection of HP infection, owning to the fact that it is more sensitive.

A-228
COMPLICATIONS OF PATIENTS HOSPITALIZED FOR MALARIA IN THE INTERNAL MEDICINE DEPARTMENT OF A GENERAL HOSPITAL

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Objectives: To analyze the complications and epidemiological characteristics of patients hospitalized for malaria in the Internal Medicine Department of a General Hospital.

Material and method: We performed a retrospective study of patients admitted in the period between March 2004 and May 2011 in the Internal Medicine department with suspected malaria with further confirmation. We analyze the complications and epidemiological, clinical and laboratory characteristics in infected patients.

Results: During the study period, 16 patients were admitted with a diagnosis of Malaria, being mostly male (11 men, 68.8%/5 women, 31.3%). Previous history of malaria had 37.5% of cases, but only 6.3% of patients took pre-exposure prophylaxis. Parasitaemia was less than 5% in 56.3% between 5 and 10%: 6.3% and more than 10%: 12.5%. The mean length of hospital stay was 6 days. Clinical characteristics: fever in 75% of cases, gastrointestinal symptoms 68.8%, muscle 56.3%, headache 50%, jaundice 18.8%, hepatomegaly 18.8%, encephalopathy 6.3% and pruritus 6.3%. Laboratory parameters showed thrombocytopenia: 75%, hyperbilirubinemia: 43.8%, anemia: 37.5%, hypertransaminasemia: 25%, renal insufficiency (creatinine > 1.5 mg/dl): 12.5%, leukocytosis: 12.5% and eosinophilia: 6.3%. There were no cases with coagulation disorder. The acute phase reactants were elevated in 68.8% of cases. 12.5% of cases were positive for HIV, 12.5% positive for HBV and found no cases of HCV and tuberculosis. No one needed intensive care and one patient needed dialysis. Respect to other characteristics: the region where infected was 81.3% of cases in sub-Saharan Africa, 18.8% Europe, 6.3% Central American and 6.3% South America. The season in the country of infection was summer in 50% of cases. The diagnosis was confirmed by thick smear in 56.3% of cases, with PCR in 6.3% and 37.5% in both. In 31.3% of the patients was positive for P. falciparum and in other cases was negative or not performed. 81.3% were treated with quinine + doxycycline and atovaquone 18.8% with proguanil. Treatment was well tolerated in 93.8% of cases.

Conclusions: Of all patients admitted to our department with malaria, 37.5% of cases had previous history of malaria, but only 6.3% received malaria prophylaxis preexposure to the trip. Fever and clinical gastrointestinal symptoms were more frequent. The analytical parameters were found most frequently thrombocytopenia (75%), increased acute phase reactants (68.8%), hyperbilirubinemia (43.8%) and anemia (37.5%). Most patients had good outcome without major complications. Treatment was well tolerated in 93.8% of cases.

A-230
PATIENTS WITH HIV/AIDS INFECTION ADMITTED IN A INFECTIOUS UNIT OF A GENERAL HOSPITAL

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Objectives: To know the epidemiological and clinical characteristics of patients admitted to medical units of a General Hospital the last year and knowing the reasons for admission, their immune and virological situation and the course and treatment at discharge.

Material and method: We performed a retrospective study in patients admitted with HIV/AIDS infection in an Infectious Unit of a Internal Medicine Service in the year 2.011. We analyzed the epidemiological, clinical, prognostic and therapeutic variables most relevant. Data were analyzed in SPSS database 17.

Results: We analyzed 55 patients, 68% of them were male and 15% of foreign origin. HIV infection was diagnosed in admission in 11% of the cases. In the other cases the previous HIV clinical stage was: A: 18%; B: 27% and C: 44%). The CD4 counts were below 200/uL in 24% of patients and 52% of them were taking HAART, with good compliance in 40%. The COMBO most used was the combination of tenofovir and emtricitabine (61%), associated with efavirenz (38%) or a protease inhibitor (31%). The reason for admission was an AIDS-defining illness in 50% of cases: tuberculosis (pulmonary 18%, disseminated 9%, extrapulmonary 4.5%), Burkitt lymphoma (31%) and recurrent pneumonia (18%) were the most prevalent diagnosis, Other concomitant comorbid diseases were: hypertension 22%, smoking 41%, hypercholesterolemia 6%, type 2 diabetes mellitus 10%, anemia 30%, heart failure 10%, cerebrovascular disease 10%, COPD 10%, malnutrition/cachexia 16%, thrombocytopenia 14% HBV infection 12.2% and HCV infection, 43%. 87.8% of patients were discharged and 6% died. In 70% of patients more than 5 drugs prescribed at discharge.

Conclusions: Thirty years after the beginning of the HIV/AIDS epidemic, the patients admitted to a hospital have advanced disease stage (mainly C3 stage, CD4 counts below 200/uL). Hepatotropic virus coinfection is very frequently and can influence the prognosis. There are increasing comorbidity with chronic diseases like COPD, heart failure and cardiovascular risk factors.

A-231
MICROBIOLOGICAL ISOLATION OF NONTUBERCULOUS MYCOBACTERIA IN THE PROVINCE OF ALMERÍA (SPAIN)

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Objectives: Nontuberculous mycobacteria (NTM) are environmental bacteria that behave as opportunistic pathogens. Its isolation is not always associated with disease. The incidence, anatomic location and distribution of species are very variable in each territory. The study aimed to describe the distribution of NTM species isolated microbiologically in the province of Almería (Spain) over the past 5 years (2007-2011).

Material and method: Design: Retrospective and observational study. Period: 2007-2011. Center: Torrecárdenas Hospital (Almería, Spain). Source: Database of mycobacteria laboratory in Almeria, which collects all NTMT provincial health network. Molecular identification using GenoType® Mycobacterium CM/AS. Outcome

measure: Interannual variation among isolates. Statistics: Anova.

Results: The isolation of an NTM occurred in 33.2% (n = 254) of patients with positive cultures for mycobacteria, with significant interannual variations (Anova: 0.012). The slow-growing mycobacteria (250/379, 66%) and the species included in the Runion sub-group III (N: 152, 40%) were the most frequent isolates. The isolate was respiratory in 89% (n = 362) of the cases and the gastrointestinal tract was the most frequent location for non-respiratory isolates (23/46 cases, 50%). The most common species isolated were: M.gordonae (n = 65), M. intracellulare (n = 60), M. avium (n = 57) M. fortuitum (n = 49) and M. abscessus (n = 43). The species with clinical significance most frequently isolated in the respiratory tract were: M. avium (12/20, 60%), M. abscessus (9/17, 52.9%) and M. intracellulare (14/27, 51.9%).

Conclusions: The isolation of NTM is common in the province of Almeria and it assumes 1/3 of all isolates of mycobacterias. We need a profound epidemiological study and a specific following of the patients with isolates of NTM for knowing the true clinical implications of this phenomenon.

A-232
RETROSPECTIVE STUDY OF HYDATID DISEASE IN AN INTERNAL MEDICINE DEPARTMENT IN A SECONDARY HOSPITAL

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Objectives: To describe the presentation, radiological findings and evolution of the hydatid disease in our center.

Material and method: We conducted a retrospective medical chart review of 104 patients diagnosed with hydatid disease from 1984 to 2008. Variables recorded were age and gender, occupation, date of diagnosis, chief complaint (abdominal pain, fever, jaundice, vomica etc), serology (considered as diagnostic if titer > 1:64, uncertain if titer was 1:64 to 1:32, and negative with titer < 1:32), and radiological studies (Chest and abdominal X-ray and CT, abdominal ultrasound) to assess cyst location. All data was analysed with SPSS version 16.0.

Results: We included 104 patients, 48.1% male and 51.9% female. Age distribution was 4 patients (3.8%) under 30 years old, 23 patients (22.1%) between 30 and 50, 38 patients (36.5%) between 50 and 70 and 39 patients (37.5%) over 70 years old. Patient's profession could not be recorded in 48.1% of the cases. The most frequent occupation was housewife (32.7%) followed by construction worker (5.8%). The most frequent reason for consultation was abdominal pain in 29 patients (27.9%) followed by fever in 5 patients (4.8%). 10 patients (9.6%) had other presenting symptoms such as jaundice, asthenia, vomica, back pain or anaphylactic shock. Serological tests were conducted in 57 patients (54.8%), being diagnostic for hydatid disease in 68.4% of these cases, uncertain in 8.8% and negative in 22.8%. Chest X-ray was performed in 91 cases, being the cyst visible in 14 of them (15.4%). From the abdominal x-rays recorded in 17 patients, 6 were considered pathological (35.3%). 68 abdominal ultrasound studies were conducted, being able to detect a cyst in 61 cases 89.7%. Abdominal CT scan was diagnostic for hydatid disease in 85 of 87 cases (97.7%). Regarding location of the cysts, 101 patients (97.1%) had liver cysts, 4 peritoneal cysts (3.8%) and 2 patients pulmonary cyst (1.9%). 79% of them were calcified. 12 patients (11.5%) had a complication: 2 compression after cyst growth, 3 infection, 2 cholangitis, 2 hepatopulmonary transit, 1 extrahepatic cholestasis, 1 anaphylactic shock and 1 acute abdomen after rupture of the cyst. There were not differences between genders concerning complications, and they were not more frequent in the patients over 70 years old. The most frequent initial symptom in this group of patients was abdominal pain in 10 cases. 50 patients were treated. Surgery as the only treatment modality was performed in 37 cases (74%) with a mean hospital stay of 18.4 ± 12.04 days. 12 patients (24%) had combined medical-surgical treatment while 1 patient (2%) had medical treatment as the only therapeutic modality. Regarding treatment outcome, 43 patients (41.3%) were cured of the disease, 36 of them with surgery (83.7%), 6 with combined treatment (14%) and 1 with medical treatment exclusively. 58 patients (55.8%) had a persistent disease whereas 2 patients (1.9%) recurred in the follow-up.

Discussion: 104 patients were diagnosed of hydatid disease in the study time, being the liver the most frequently affected organ. Age distribution of cases among groups over 30 years was homogeneous, without any significant differences between genders as well. Abdominal pain was the most frequent chief complaint. Serology was performed in 54.8% of the cases, being diagnostic for 68.4% of them. 97.7% of the 87 abdominal TC performed were pathologic versus 89.7% of the 68 abdominal ultrasound studies. 48.1% of the patients were treated, being surgery as a single modality the most frequent treatment, in 98% of the cases with a mean hospital stay of 18.4 ± 12.04 days. The disease was cured in 41.3% of the patients while it persisted in 55.8%.

Conclusions: Hydatid disease typically affects abdominal organs, with a homogeneous age and gender distribution. Abdominal pain and fever are the most common presenting symptoms. Our study concludes that abdominal TC is the most sensitive diagnosis test and that surgery is the most effective treatment modality, with or without medical adjuvant treatment.

A-233
EPIDEMIOLOGIC DESCRIPTION OF PATIENTS DIAGNOSED OF HIV INFECTION IN A UNIVERSITY HOSPITAL IN THE PERIOD 2007 – 2012

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Objectives: Risk behaviors and transmission routes of HIV infection have changed strikingly since the decade of 80s, when this disease was discovered. After adopting the specific socio-sanitary measures, new diagnoses per year has considerably decreased over the years. The aim of this study is describe the clinical and epidemiological characteristics of the newly diagnosed HIV patients in our hospital.

Material and method: We selected all the patients newly diagnosed of HIV infection from January 1, 2007 to March 29, 2012 in our hospital, a community hospital from Madrid. The total were 143 patients. Frequencies had been used to describe the qualitative variables and the mean for quantitative variables. We used the statistical program SPSS version 17.0 for data analysis, using as statistics the p of Pearson chi-square.

Results: 68.5% are male and 31.5% are women. The mean age was 40.07 year (from 21 to 73, and SD 10.41 years). Of these, 51.7% are Spanish and the other immigrants (48.3%): 23.1% from America, 16.1% from Africa, 8.4% from Europe (excluding Spain) and only 0.7% from Asia. The most common route of transmission is heterosexual (51%), followed by homosexual in 36.4% of causes, and only 4.9% intravenous-drug-users. There were no cases of transfusions or vertical transmissions. Analyzed the mode of transmission by countries, we found that heterosexual transmission was statistically significant more frequent in Africa and Europe (excluded Spain), than in Spain and America (p 0.000). HIV infection prevalence is higher among men in Europe, America and Asia, while

it is higher in women in the case of Africa (p 0.005), data that reach statistical significance. The mean viral load at diagnosis was of 116.966 copies per mililiter, and the mean CD4 count at diagnosis was of 409 cells. According to CDC classification, 63% of patients were asymptomatic at diagnosis (stage A) and 27.9% were presented with one of AIDS-defining diseases (stage C). Only the 17.5% of patients were diagnosis during primary infection period because it was symptomatic. 9.8% of HIV patients were coinfected with HCV versus 88.1% who were HCV negative. Only 0.7% had HBV positive serology compared with 97.2% who were HBV negative. HCV coinfection was statistically significant more frequent in Spanish people compared to other regions studied (p 0.003) and found no significant differences with respect to HBV. Antirretroviral treatment was initiated at diagnosis in 76.2% of patients newly diagnosed of HIV infection, and was postponed in 23.8% of patients because they did not met clinical or/and microbiological criteria for this.

Conclusions: The model of patient newly diagnosed with HIV infection in the last 5 years is a heterosexual male, 40 years old, who presents a good immune status but with high viral loads. In our sample is rare HCV coinfection and anecdotal in the HBV coinfection. Following the recommendations of clinical guidelines for HIV infection in adults, we advocate early initiation of antiretroviral therapy.

A-234
IDENTIFICATION OF LENGTH OF HOSPITAL STAY-ASSOCIATED RISK FACTORS IN PATIENTS WITH PNEUMONIA

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Objectives: To identify which factors have an influence on the length of hospital stay of patients admitted to an Internal Medicine Unit due to a respiratory infection.

Material and method: Descriptive, prospective study in every patient diagnosed of inferior airway infection, between November 2011 and April 2012, in the Internal Medicine Unit in Hospital General Universitario de Valencia. 490 variables were analyzed, from 111 patients, including demography data, personal medical records, functional scales, clinical, radiological and laboratory findings, prognostic scales, antibiotic therapy and clinical progress.

Results: 56.8% from 111 analyzed patients were women; average age was 83.55 years old, with a middle punctuation on Barthel scale of 30.97 (median of 10), a Charlson index with a median of 7, and a performance status average of 2.95. 57.7% were healthcare-associated pneumonias, 32.4% were community acquired pneumonias (CAP), and 12.6% were hospital acquired ones. Most common medical records were any grade of dementia (56.8%), congestive heart failure (31.5%), cerebrovascular disease (31.5%), diabetes mellitus (31.5%), COPD (19.8%), nephropathy (16.2%), neoplasia (15.3%), coronary disease (12.6%) and peptic ulcer disease (12.6%). 39.5% presented any grade of dysphagia. 75.3% had been treated previously with gastric secretion inhibitors and 47.7% with oral antibiotherapy. It was observed radiological lung condensation in 80% of patients. It was observed that 97.2% patients presented a PSI class of 4-5 (average punctuation 145). CURB-65 average punctuation was 2.83 with a median of 3. ATS criteria defined severe pneumonia in 47.7%. It was observed an increased length of hospital stay in men (p = 0.07) and a reduced in CAP (p = 0.17), both of them not significant. Patients with history of diabetes mellitus with organ damage (p = 0.022), previous pneumonia (p < 0.01) and dysphagia (p = 0.014) had an increased length of hospital stay. It was observed an increased hospital stay length in patients with increased bronchial secretion (p = 0.034) and patients with productive sputum (p = 0.17). Other findings that were not significant were systolic blood pressure lower than 90 mmHg and pO_2 lower than 60 mmHg (p = 0.07 and p = 0.12) respectively. Multiple lobe infiltrates (p = 0.12) and urea levels higher than 40 mg/dl (p = 0.15). ATS criteria of leukopenia and thrombocytopenia had a significant association (p = 0.02 and p < 0.01 respectively). Patients with hypotension that did not require vasoactive drugs (p < 0.01) and severe pneumonias defined by ATS criteria (p = 0.035) were associated with an increased length of hospital. Hospital stay in patients with infectious complications (p < 0.01) like pleural effusion (p < 0.01) and septic shock (p < 0.01) was significantly longer. Another complications that were associated with an increased length of hospital stay were pressure ulcers (p < 0.01), ADRS (p < 0.01) and impairment of renal function (p = 0.05). Patients with a Barthel scale score lower than 25 (p = 0.016), and a PSI index score of 5 (p = 0.04) had an increased length of stay hospital that was significant. Patients with CURB-65 score of 4 or 5 had not statistically significant differences.

Conclusions: All of prognostic scales detected patients with severe pneumonias. ATS criteria were the best scale if we attend to our results, although CURB-65 scale is easier to use. Infectious and non infectious complications were associated with an increased length of hospital stay, so efforts in order to early diagnosis and adequate treatment is recommendable. Medical history and biological findings that have not been initially associated with mortality such as diabetes mellitus with organ damage, hypotension, hypoxemia and multiple lobe infiltrates complete the risk factors related to an increase in length of hospital stay.

A-235
IDENTIFICATION OF MORTALITY-ASSOCIATED RISK FACTORS IN PATIENTS WITH PNEUMONIA

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Objectives: To identify which epidemiological features of Internal Medicine admitted patients due to pneumonia are associated with an increase on mortality.

Material and method: Descriptive, prospective study in every patient diagnosed of inferior airway infection, between November 2011 and April 2012, in the Internal Medicine Unit in Hospital General Universitario de Valencia. 490 variables were analyzed, from 111 patients, including demography data, personal medical records, functional scales, clinical, radiological and laboratory findings, prognostic scales, antibiotic therapy and clinical progress.

Results: 56.8% from 111 analyzed patients were women; average age was 83.55 years old, with a middle punctuation on Barthel scale of 30.97 (median of 10), a Charlson index with a median of 7, and a Performance Status average of 2.95. 54.1% were healthcare-associated pneumonias, 33.3% were community acquired pneumonias (CAP), and 12.6% were hospital acquired ones. Most common medical records were any grade of dementia (56.8%), congestive heart failure (31.5%), cerebrovascular disease (31.5%), diabetes mellitus (31.5%), COPD (19.8%), nephropathy (16.2%), neoplasia (15.3%), coronary disease (12.6%) and peptic ulcer disease (12.6%). 47.7% presented any grade of dysphagia. 75.3% was been treated previously with gastric secretion inhibitors and 47.7% with oral antibiotherapy. Most common symptom was dyspnea (90%), followed by cough (74%) and alterations of conscious state (62%). The last one is associated with an increase on mortality (p = 0.016). Medians of breathing rate, creatinine and C Reactive Protein were 28.8 respirations per minute, 1.05 mg/dL and 12.8 respectively.

31.5% presented infectious complications; most frequently pleural effusion (11.7%). Between the non-infectious complications, the most frequent was the respiratory failure (68.5%). It has been seen a descent in expected mortality in CAP patients (p = 0.17) and an increase in hospital-acquired pneumonias (p = 0.15). There were no differences related to mortality in healthcare-associated pneumonias. It was observed an increase on mortality in patients with a Charlson index higher than 7 (p = 0.048), a Barthel < 25 (p = 0.013) and in patients with history of dysfhagia (p = 0'01) and renal disease (p < 0'01) that were the most statistically significant ones. No statistically significant relation was found in patients with previous pneumonias (p = 0.1), dementia (p = 0.13) and age (p = 0.18). Higher mortality associated clinical features were increase of bronchial secretions (p < 0.01) and delirium (p < 0.016). Biological data with more associated mortality were urea (p < 0.01), creatinine (p < 0.01), and a respiratory rate upper than 30 breathings per minute (p < 0.01). Infectious complications associated also a statistically significant higher mortality (p = 0.011). It has been observed that there is a statistically significant correlation between every analyzed prognostic scale and mortality (p = 0.01) CURB-65, PSI index (p = 0.034) and ATS scale (p < 0.01).

Discussion: It has been observed that there is a trend towards a higher mortality in some parameters between the different pneumonia groups that could be verified with a bigger study population. They stand out some factors that are not usually recorded at the initial clinical history, but which can determine the prognosis of our patients, like swallowing ability, previous pneumonias and a breathing rate upper than 30 breathings per minute. At the same time, renal failure has a strong relation with mortality and it should have a very special role in the integrative view of the patient with pneumonia. Every prognostic scale detected significantly the most severely ill patients, being ATS the one who showed more correlation. Infectious complications and, less importantly, non infectious complications, were related to a higher mortality. Therefore, an early detection and appropriate therapy would be an advisable clinical practise.

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EPIDEMIOLOGICAL CHARACTERISTICS OF A COHORT OF HIV-CHV COINFECTED PATIENTS IN A COMMUNITY HOSPITAL

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Objectives: The first cases of acquired immunodeficiency syndrome (AIDS) were reported in 1981-1982, the etiologic agent was identified in 1983 and set of diagnostic tests was possible in 1984. HIV and HCV share similar transmission routes; the prevalence of coinfection with both viruses is about 25-33% (up to 50% for intravenous drug users -IDU- and 10% in homosexual people.) The current antiretroviral therapy has reduced the mortality associated with AIDS so, in the current moment, begin to take importance the non-AIDS events which involve increased mortality. The HCV liver disease is the most relevant comorbidity. The aim of the study is to determine the clinical characteristics of HIV/CHV co-infected patients in our cohort.

Material and method: 91 HIV/CHV coinfected patients where recluted during a period of 45 days. Exploratory data were collected at the time of the visit and other demographic data, laboratory and microbiology results, from the electronic medical record. The main was used to analyze quantitative variables and proportion for categorical variables. We use de statistical program SPSS, version 17 for data analysis.

Results: The prevalence of HIV/CHV coinfection was 60% in this sample. The mean age was 47.1 years, with 79.1% of males. 58% of patients had a CD4 levels > 350, 28.4% had a CD4 levels between 200 and 350 and only one patient had CD4 levels < 100. HIV viral load was undetectable in 85.6% of all patients. The route of transmission was primarily parenteral in 84.3% (associated with illicit drugs users), followed by heterosexual transmission in 9%. The 62.7% of patients were coinfected with an unfavorable HCV genotype (genotype 1 and 4 in 45.1% and 17.6% respectively); 14.3% of patients was genotype 3 and just one patient was infected by a genotype 2. Approximately 60% of patients had high HCV viral loads (> 800.000 copies). The duration of HCV infection was greater than 20 years in almost half of patients (47%) and less than 10 years in 4% of patients.

Conclusions: The prevalence of HIV/HCV coinfection in our cohort is 60%. The patient coinfected model in our area would be a middle-aged man, about 47 years old, with good immunological and virological monitoring of HIV infection. The main route of acquisition was parenteral (drug users) in 9 out of 10 patients, which could explain the higher prevalence of coinfection in our cohort than in others cited in the literature. Two out of three co-infected patients have an unfavorable genotype with a time evolution more than 15 years in almost 8 out of 10 patients.

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DEGREE OF HEPATIC FIBROSIS IN HIV AND HCV COINFECTED PATIENTS MEASURED BY INDIRECT METHODS: APRI, FORNS AND FIBROSCAN

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Objectives: HIV infection changes the natural history of hepatitis C: increases the risk of descompensation and the risk of chronicity, accelerates the progression of liver fibrosis and decreased survival after the first decompensation. Extensive hepatic fibrosis is the best predictor of disease progression and, in addition, also has therapeutic implications: in case of significant fibrosis should be prioritized antiviral treatment, while in cases of minimal fibrosis, treatment would be contraindicated if there are predictors of poor response. The gold standard for assessing the degree of fibrosis in patients with chronic hepatitis C is liver biopsy, but it is an invasive procedure with complications. Furthermore, the fibrosis distribution is not homogeneous (cirrhosis diagnosis is lost in up to 10-30% of cases) and there are significant interobserver differences (errors of interpretation up to 33%). Therefore, other noninvasive methods have been developed such as APRI index, Forns index (IF) and FibroScan. The purpose of our study is to determine the degree of liver fibrosis in coinfected HIV/CVH patients and to investigate whether there are differences in certain aspects related to HIV infection (clinical CDC stage, CD4 count or HIV viral load) or HCV infection (genotype).

Material and method: we permorfed fibroscan to 91 coinfected HIV/CHV patients and APRI index (AST and platelets) and Forns index (age, platelets, GGT and cholesterol) were calculated in all of them. According to the Fibroscan value a fibrosis grade was assigned (METAVIR scale). For APRI and Forns index we established two breakpoints to classify the patients into low degree of fibrosis, high or indeterminate degree. The mean was used to analyze quantitative variables and proportion for categorical variables. For comparison between qualitative variables we used the chi-square test and for comparison of means, t-Student test or Mann-Whitney test. We use the statistical program SPSS, version 17.

Results: According to the APRI values, 23.9% of patients had an advanced degree of fibrosis (APRI > 1.5), 31.8% had low degree of fibrosis (APRI < 0.5) and 44.3% had undetermined grade of fibrosis (APRI between 0.5 and 1.5). According to the values obtained from the Forns index, 37.5% of patients had high degree of fibrosis (FI > 6.9), 11.4% low degree of fibrosis (FI < 4.2) and in 51.1% was indeterminate (between 4.2 and 6.9). The mean Fibroscan value was 12.82 kPa, which accord with a low grade of fibrosis in METAVIR scale (F0-F1), and was present in 40.2% of patients; 18.4% were F2, another 18.4% were F3 and 23% were F4 (high degree of fibrosis). The differences in the degree of fibrosis according to CDC stage, CD4 count, HIV viral load or the presence of favorable or unfavorable HCV genotype, were all no significant.

Conclusions: Only about half of patients could be classified by APRI and Forns index (55% and 49% respectively), being able to rule out significant fibrosis in 31% of patients with APRI and you 11.4% of patients by Forns index. Therefore, these methods were not applicable in a large percentage of patients. More than half of patients present with Fibroscan significant degree of fibrosis but not advanced fibrosis; these patients do not require immediate treatment or screening tests for complications of chronic liver disease. A quarter of patients have liver cirrhosis stage by Fibroscan (F4), being essential the screening and prevention of complications of portal hypertension and hepatocellular carcinoma in this group. There were no statistically significant differences in fibrosis degree as CDC stage, CD4 count, HIV viral load or favorable/unfavorable HCV genotype.

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LABORATORY DATA OF LIVER DISEASE IN A COHORT OF COINFECTED HIV/HCV

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Objectives: HIV and HCV share similar transmission routes, with a coinfection prevalence of 25-33%. Antiretroviral treatment has caused a reduction in AIDS-related mortality, making liver disease by HCV in the most relevant comorbidity. HIV infection changes the natural history of hepatitis C virus, causing an increased risk of chronicity (up to 90%), accelerates the progression of liver fibrosis to cirrhosis (mean 26 years in coinfected versus 38 years in monoinfected), increased the risk of decompensation and, after the first episode, survival is reduced. The risk of developing hepatocellular carcinoma is, at least, similar to the general population. This study claims to determine the prevalence of this population and to record the degree of hepatic involvement in this population to determine the potential number of patients who are candidates for antiviral treatment and how many of them require screening for cirrhosis and hepatocellular carcinoma.

Material and method: a total of 91 HIV-CHV coinfected patients were recruited. Data were obtained from electronic medical records, with a minimum previous follow up of six months. The mean was used to analyze quantitative variables and proportion for categorical variables. This analysis was performed using statistical program SPSS version 17.

Results: The prevalence of coinfection was 60%. The mean value of AST was 54 and 78.9% had a normal or elevated value less than twice the upper limit of normal. The mean value of ALT was 58 means, and 80% had a normal or elevated less than twice the upper limit of normal. The mean of serum bilirubin level was 0.81; 88.9% of the patients had a normal value and only 6 patients had a bilirubin value greater than 2 mg/dL. Cholesterol levels were normal in 60.2% of patients, and were lower than desired in 20.5%. Severe thrombocytopenia (less than 50,000 platelets/L) was present in 6.7% of patients, 58% of patients had normal platelets levels (> 150,000 platelets), 19.3% a mild thrombocytopenia and 15.9% moderate. The leukocytes recount was normal in 86.7% of patients; any patient had leukopenia less than 1,500 cells/L. On examination, patients had hepatomegaly and splenomegaly in 19.3% and 10.3% respectively, 93.2% had no collateral circulation, and there were absence of spider veins in 89.8%. Around 23 patients had an upper endoscopy performed recently (past year).

Conclusions: the prevalence of coinfected HIV/HCV is 60%. Approximately 70% of patients will present whit AST and ALT levels normal or slightly elevated (no more than twice the upper limit of normal) and bilirubin value was normal in 9 of 10 patients. The finding of leukopenia and/or moderate or severe thrombocytopenia was uncommon. Cholesterol levels were lower than the normal value in 20% of patients.

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COMPARISON OF NONINVASIVE METHODS FOR ASSESSING HEPATIC FIBROSIS: APRI, FORNS AND FIBROSCAN

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Objectives: Infection with the HIV virus alters the natural history of hepatitis C: increases the risk of chronicity, accelerates the progression of liver fibrosis with increased risk of decompensation and decreases survival after first decompensation. Extensive hepatic fibrosis is the best predictor of disease progression and it has also therapeutic implications. The gold standard for assessing the degree of fibrosis is liver biopsy, but it is an invasive procedure with complications, there is no homogeneous distribution of fibrosis (loss of diagnosis of cirrhosis in 10-30%) and there exists a significant interobserver variability (errors of interpretation about 33%). Therefore we have developed other noninvasive methods, among which include APRI index, Forns index and Fibroscan. The aim of our study is to assess the concordance of noninvasive biochemical methods to assess the degree of liver fibrosis compared to data obtained using FibroScan in isolation or in combination.

Material and method: We obtained de data of fibroscan (liver stiffness by ultrasound) from 91 HIV patients co-infected with hepatitis C from the Internal Medicine Department, and we also calculated values of APRI (AST and platelets) and Forns (age, platelets, GGT and cholesterol) for the same patients. Were taken as cutoff values to classify FibroScan liver fibrosis (METAVIR score): ≤ 7.0 kPa corresponds to F0-F1, from 7.1 kPa to 9.4 kPa corresponds to F2, from 9.5 to 14.5 kPa kPa corresponds to F3 and values > 14.5 kPa correspond to F4. The values of APRI and Forns < 0.5 and < 4.2 respectively excluding significant fibrosis, values > 1.5 and > 6.9 respectively, for diagnosis of significant fibrosis. The index used to assess agreement was kappa index, whose calculation was obtained with the statistical software SPSS 17.

Results: In our cohort, 23.4%, 37.5% and 41.2% of patients presented an advanced degree of fibrosis by APRI, Forns and Fibroscan respectively, and a low degree of fibrosis in 31.8% (APRI), 11.4% (Forns) and 41.4% (fibroscan). The degree of concordance of APRI index with Fibroscan showed a kappa index of 0.57 and 0.34 in case of Forns index. For advanced degrees of fibrosis concordance was 67% (21/31) for APRI index and 84% (27/34) for Forns index, being 100% (15/15) and 50% (5/10) for low degrees of fibrosis respectively. The concordance of both

biochemical methods simultaneously with Fibroscan was 0.58 in total, with 82% for the advanced degrees of fibrosis and 100% for low degrees of fibrosis.

Conclusions: Concordance of APRI with Fibroscan was moderate, however Forns index showed a poor concordance degree with Fibroscan. Both indexes used simultaneously shows fair agreement. Such methods could be useful in identifying the most extreme degrees of fibrosis, avoiding hepatic biopsy in a substantial proportion of coinfected patients whose degree of fibrosis measured by Fibroscan matches with at least one of the values estimated by biochemical indexes. A limitation of the study is not using liver biopsies to compare the results of biochemical methods or elastography.

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INFECTIVE ENDOCARDITIS IN INTERNAL MEDICINE: A RETROSPECTIVE DESCRIPTIVE STUDY. SALAMANCA 2003-2012

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Objectives: To analyze the epidemiological and clinical characteristics of patients with diagnosis of infective endocarditis in an Internal Medicine Service in Salamanca during the period from May 2002 to May 2012.

Material and method: Through review of the medical records of patients diagnosed of infective endocarditis, these data were analysed: year of diagnosis, age, gender, heart valve affected, risk factors, etiologic agent, clinical signs of sepsis, length of hospital stay and need of transfer to Cardiology Department.

Results: 14 of 12063 (0.12%) admissions in our Internal Medicine Department from May 2002 to May 2012 were diagnosed of infective endocarditis. Sex distribution was 57.15% men and 42.85% women. The average age was 69 years and the median 70 years (range 21-90). Valve involvement was: mitral (50%), tricuspid (28.6%), pulmonary (7.1%), pacemaker electrode (7.1%) and in one of the cases it was not identified the valve lesion. 71.4% of patients had a history of structural heart disease, the most frequent was valvular heart disease (57.14%). 42.9% of patients had prosthetic valve: 66.7% mitral and 33.3% aortic. One patient had ventricular-atrial derivation and another one a pacemaker. None were intravenous drug user. Staphylococcus aureus was the etiologic agent in 42.85% of cases, of which 83.3% were methicillin-resistant. 21.43% were coagulase-negative staphylococci, 14.28% Streptococcus sp., 7.14% Enterococcus faecalis, and in 14.28% of cases the responsible agent was not identified. The average hospital stay was 16 days and the median 15 days, with a range from 5 to 50 days. Related to clinical evolution, 57.8% had clinical criteria for sepsis, 21.4% died during the period of hospitalization, and 42.8% of patients were transferred to Cardiology Department.

Discussion: In our Internal Medicine Department, the diagnosis of infective endocarditis is a small number of cases a year (1-2). There is no major differences in gender distribution, and the mean age at diagnosis is 69 years. Patients most often affected are those with structural heart disease, especially prosthetic valve carriers. The valve most often affected is the mitral, followed by the tricuspid. The most common pathogenic microorganism is Staphylococcus aureus methicillin-resistant, followed by coagulase-negative staphylococci. During admission most patients present clinical signs of sepsis, and it is common the transfer to Cardiology at the poor clinical outcome and the possibility of needing surgical treatment.

Conclusions: Although very often suspected in patients admitted to Internal Medicine, infective endocarditis is a rare diagnosis. It is essential to exclude it in patients with signs of sepsis without a clear focus and with a history of structural heart disease, especially those carriers of prosthetic valves or other cardiac devices. Due to the high prevalence of infection with methicillin-resistant gram-positive cocci, it is necessary to identify the predisposing factors in order to start an appropriate empirical antibiotic treatment early. Infective endocarditis is a serious condition with a high rate of deaths and need of surgical management.

A-241
INFECTIOUS DISEASES IN PATIENTS WITH TYPE 2 DIABETES MELLITUS ADMITTED TO HOSPITALIZED INTO THE INTERNAL MEDICINE SERVICE

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Objectives: Determinate more susceptible infectious cause, host-factors and specific microorganism in patients with type 2 diabetes mellitus hospitalized in the Internal Medicine Service.

Material and method: A retrospective study was conducted between May 2011 and May 2012 at the Internal Medicine Service of The Clinical Hospital of Valladolid, among 113 type 2 diabetic patients hospitalized with clinical infection, identifying age, sex, glycosylated hemoglobin, morbidity process and microorganism isolated.

Results: From 113 type 2 diabetics hospitalized with clinical infection disease, 58% were males. There were 38.4% cases with confirmed etiology and 61.6% cases with clinically suspected etiology. 9.8% cases has an oncologic morbidity were admitted to hospitalized. The infectious diseases presented in type 2 diabetics hospitalized patients were 52.2% respiratory tract infections, 33.6% urinary tract infections, 6.2% skin infections, 4.4% intra-abdominal infections, 2.7% no focus infection and 0.9% bone infections. Total nosocomial infections were 6.3% went admitted to hospitalized. Escherichia coli was the most common agents isolated, being involved in 16 cases (13.3%), followed by Enterococcus faecalis (5.8%); Pseudomona aeruginosa (5%); Staphylococcus aureus (2.5%); Candida glabrata, Morganella morgani, Morganella catarrhalis, Staphylococcus epidermidis, Staphylococcus saprofiticus and Candida albicans, 2 cases reported each (1.7%). Methicillin-resistant Staphylococcus aureus, Corinebacterium, Acinetobacter, Streptococcus pneumoniae, Proteus vulgaris, Haemofilus influenzae, Klebsiella pneumoniae, Staphylococcus hominis, 1 case reported each (0.8%). The mean mortality rate during the hospitalization was 14.3%. Mortality in less than 80 years old patients were 7.4% and older than 80 years were 20.6% resulting statistic significative ($p < 0.05$). Glycosylated hemoglobin and mortality presented in controls with HbA1c less than 7% mortality were 14.7% and controls with HbA1c more than 7%, mortality were 13.6% not resulting statistic significative ($p > 0.05$).

Conclusions: Respiratory tract infections were the most common cause of infectious disease in patients with type 2 diabetes admitted to hospitalized in the Internal Medicine Service, followed by Urinary tract infections. More frequent isolated organisms were Escherichia coli, Enterococcus faecalis, Pseudomonas aeruginosa, Staphylococcus aureus. Mortality is higher in patients over 80 years. Not evidence statistic significant in mortality between patients depending on glycemic control.

Table 1 (A-241). Infectious diseases in type 2 diabetics hospitalized patients in the Internal Medicine Service

Infectious diseases	Frequency (cases)	Percentage (%)
Respiratory tract infections	59	52.2
Urinary tract infections	38	33.6
Skin infections	7	6.2
Intra-abdominal infections	5	4.4
No focus infection	3	2.7
Bone infections	1	0.9
Total	113	100

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CLINICAL EXPERIENCE WITH RALTEGRAVIR IN HIV AND HCV COINFECTED PATIENTS IN A COHORT FROM THE SOUTHEAST OF SPAIN (PERIOD 2007-2011)

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Objectives: To determine the effectiveness, tolerability and safety profile of raltegravir (RAL) in HIV and HCV coinfected patients, as well as the main use indications of this antiretroviral agent in this population.

Material and method: Prospective cohort of 28 HIV and HCV coinfected patients in which we decided to start RAL as part of the antiretroviral regimen. In our study we evaluated the following variables: age, sex, CD4 lymphocytes cell count (cells/mcL) and viral load (VL; copies/ml), both at the baseline and the final of follow up, hepatic fibrosis grade determined by transitory elastography, use indications of RAL, clinical tolerability and hepatic toxicity grade in the clinical follow up.

Results: The cohort included 28 HIV-HCV coinfected patients, 3 of which were females (11%) and 25 males (89%), with a median age of 45 years. The median of CD4 lymphocyte cell count and VL at baseline was 407 cells/µl and 192 copies/ml (2.28 Log10) respectively. The study period covered from the 1st march 2007 to the 1st may 2011 with a median of clinical follow-up of 28 months. In 24 patients (86%) underwent transitory elastography to know the grade of hepatic fibrosis. Nine of them (37.5%) showed cirrhosis (> 14.5 Kpascal). Among the cirrhotic patients, the median of fibrosis grade by transient elastography was 15.9 Kpascal. The criteria for starting RAL in our cohort were: rescue therapy in 17 cases (60.71%), intensification therapy in 7 cases (25%), toxicity by other antiretroviral drugs in 2 cases (7.14%) [1 case by protease inhibitor (PI) and 1 case by Efavirenz, a non-nucleoside analog of reverse transcriptase] and in 2 cases (7.14%) as start therapy in naïve patients. During the follow-up no patient showed hepatic decompensated disease or 3-4 grade alteration in ALT-GPT and AST-GOT transaminases respectively. In 5 patients (17.85%) 3-4 grade transitory elevations of GGT were observed, which were caused by the abusive alcohol intake. No patient interrupted the RAL treatment during the follow-up. At the end of follow up, we observed an increase of the median CD4 lymphocytes cell count (80 cells/mcL) and all patients achieved completed suppression of viral load (VL < 25 copies/mL).

Discussion: The HIV-HCV coinfection increases the patogenity of both viral infections. The evolution of HCV to cirrhosis is faster among the coinfected subjects, being the hepatic morbi-mortality higher in this group than in patients only infected by HCV or HIV. RAL is the first integrase inhibitor approved for clinical use. It has the peculiarity of not being metabolized in the liver by the cytocrome p450 enzyme, as well as it happens with the IP, but metabolized by glucuronidation pathway. This confers additional advantages because there is not a significant increase in its plasmatic concentration (Cmax, Cmin, AUC) in patients with chronic hepatic disease and cirrhosis, even in case of moderated or severe hepatic insufficiency (B and C Child-Pugh class). This explains that RAL is a drug with low or nule liver toxicity. It also has few interactions, which makes it a first line drug in the HIV-HCV coinfected population and hepatic transplanted patients due to the absence of interactions with immunosuppressive therapy as cyclosporine or tacrolimus.

Conclusions: In our HIV-HCV coinfected patients cohort, RAL showed to be an effective, safe and well tolerated drug. A significant proportion of coinfected patients had cirrhosis criteria by transitory elastography, not being detected during the clinical follow-up significant hepatic toxicity or any hepatic decompensated disease.

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LISTERIOSIS

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Objectives: 1. To describe the underlying conditions, clinical characteristics and received treatment of a cohort of patients with listeriosis in the last 4 years at our hospital. 2. To describe the predictor factors of mortality.

Material and method: Retrospective analysis of patients with isolation of Listeria monocytogenes in sterile body fluids admitted at our hospital between January 2008 and December 2011. Demographic, clinical, laboratory and therapeutic variables are collected. Neonatal cases are excluded. In this study we have used listeriosis-related mortality as the dependent variable. As independent variables, we used: age, L. monocytogenes serotype, immunosuppressive therapy, corticosteroids treatment, neurological symptoms, empiric treatment and definitive therapy. Univariate analysis was first performed. All variables with a p value < 0.1 were then introduced in a multivariate multiple linear regression model in order to identify independent predictors of mortality.

Results: At the 4 years studied period, we found 36 cases of adult listeriosis. 20 patients (56%) were men and 27 patients (75%) were < 65 years. The mean age at diagnosis was 57.81 + 15.64 years (median 61 years). The most frequent serotype was 4b, isolated in 16 patients (43%) followed by 1/2a in 14 (38%), 1/2b in 4 (11%) and 1/2c in 2 (5%). The most common underlying conditions were: malignancy in 18 patients (50%) -solid tumour in 11/18 and hematologic malignancy in 7/18-, immunosuppressive therapy in 17 (47%), corticosteroids treatment in 13 (36%), alcoholism in 13 (36%), hepatopathy in 9 (25%), pregnancy in 4 (11%) and diabetes mellitus in 5 patients (14%). There were 4 patients (11%) with no predisposing factors. The most common clinical presentations of listeriosis was: bacteremia in 29 patients (81%) - primary bacteremia in 23 cases (64%) and gastrointestinal bacteremia in 6 patients (17%) - and CNS infection in 7 patients (19%) - meningitis in 1 (3%) and meningoencephalitis in 5 (14%) -. Blood culture was positive in 30 patients (83%), CSF in 4 (11%), peritoneal fluid in 2 (5.6%) and one each (2.8%) in synovial fluid and in a vascular graft. The mean of C-reactive protein level was 11.04 + 8.48 (median 8.4). With

regard to the antibiotic treatment, 22 patients (61%) received inadequate initial empirical treatment. 24 patients were treated with ampicillin (67%) as definitive therapy, and 7 of them (20%) were also given aminoglycosides. In 8 cases, death occurred before any definitive treatment could be established (22%). There were 10 deaths related to listeriosis infection (28%). In the univariate analysis, listeriosis-related mortality was associated with CNS involvement from any origin (p = 0.001), corticosteroid therapy (p = 0.018) and a definitive treatment regimen without ampicillin (p = 0.002). The inadequate empirical treatment showed a borderline significance (p = 0.054). In the multiple regression model, only the CNS involvement from any origin (p = 0.022) and a definitive treatment regimen without ampicillin (p = 0.038) showed a significant independent association with listeriosis-related mortality.

Discussion: Listeria monocytogenes, a facultative intracellular gram-positive rod, is a recognized cause of bacteremia and meningoencephalitis in humans, especially in neonates, pregnant women, the elderly and immunosupressed hosts, associated with a high fatality rate.

Conclusions: The profile of studied population shows a clear predominance of malignancies as the most commonunderlying condition, representing the half of the cases of our cohort. Listeriosis-related mortality rate was high (28%) and it was associated with a definitive treatment regimen without ampicillin and with CNS involvement.

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EPIDEMIOLOGICAL CHARACTERISTICS OF HIV-POSITIVE OVER THE LAST 5 YEARS OR IN A SIMILAR PERIOD 10 YEARS AGO

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Objectives: see the differences between the characteristics of patients according to the date of HIV diagnosis, as it has occurred over the past 5 years or in a similar period 10 years ago.

Material and method: a retrospective descriptive review in which we chose 2 samples of patients according to the date of HIV diagnosis, as it has occurred over the past 5 years or in a similar period 10 years ago, to compare the different variables. In the first of these are patients whose HIV diagnosis occurred from January 1, 2007 to March 29, 2012 (n = 143) and the second are those who were diagnosed from 1 January 1999 to 31 December 2001 (n = 104).

Results: In relation to sex did not find significant difference (p = 0.9). With regard to infection we found that the most prevalent route of transmission was 10 years ago among UDVP (40) followed by sexual in heterosexual patients (36) and homosexual patients (16) while currently the most prevalent way is the sexual route in heterosexual patients (73) followed by homosexual (52) and UDVP (7) (p < 0.001). With respect to HCV coinfection in the first sample only 10% are coinfected (14) compared to 48.5% in the sample for 10 years (48) (p < 0.001). Regarding HBV coinfection no identifiable significant difference when comparing both periods (p = 0.19). Given the CDC classification at diagnosis in both periods we found no significant difference (p = 0.35). We have analyzed this variable taking just the clinical classification (A, B and C) and again we didn't find difference (p = 0.13) although there is currently a trend towards increasingly diagnosed in earlier stages (A: 67% vs C: 23.5%) compared with the sample of 10 years (A: 54.8% vs C: 33.7%). We found significant differences with regard to place of origin of the patients in both samples (p < 0.001) and for the past 10 years a 83.5% of Spanish (86) compared to 16.5% of immigrants (17) (53% African, 41.1% American and 5.9% in Europe (excluding Spain)) currently Spanish keep being the majority with 51.7% (74) and visualized a significant increase of immigrants to 48.3% (69) (33.3% African, 47.8% American, 17.4% from Europe (excluding Spain) and 1.4% Asia) almost reaching the Spanish match that attending outpatients.

Conclusions: we found statistical significance regarding the routes of transmission in which in the early years the most common route was by UDVP and currently the most common is the sexual route in heterosexual patients. There is also a smaller number of patients coinfected with HCV significant statistics. Also draws our attention at present, despite being the Spanish the most prevalent group increased immigrants has grown statistical significance to almost equal the Spanish group. On the other hand, we have found no statistical significance comparing the variable sex, HBV, and although each time the diagnosis is made at earlier stages, based on the CDC classification result was not significantly estatisitic.

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INCIDENCE AND CHARACTERISTICS OF PALUDISM, AN EMERGING ILLNESS IN THE LAST FEW YEARS

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Objectives: To analyze the epidemiology, clinical signs, complications and treatment of paludism in registered cases in a tertiary care hospital in the last five years.

Material and method: This is a retrospective cohort study in which 26 malaria cases were analyzed in the Complejo Asistencial Universitario de Burgos among 2007-2012. The diagnosis was executed using thick blood smear (in all the cases), serology and microscopy.

Results: In our series, 72% (18 patients) were men, 28% (7 patients) were women and the average age of the patients was 34 years old. 47.8% were Europeans, 34.8% were Africans, and the rest were from Asia (13%) and Central America (4.3%). 80% of the patients had travelled to malarious endemic areas but only 12% carried out the complete chemoprophylaxis. Plasmodium species was found in 60% of the cases, and the results are the following: P. falciparum 32%, P. vivax 20%, P. ovale 4%, mixed 8%. As regards the clinical manifestations, patients presented fever (100%), cephalalgia (58%), asthenia (66.7%), abdominal pain (29.2%), sickness (25%), diarrhoea (16.7%) and arthromyalgia (29.2%). Splenomegaly was observed in 47.8% of the cases, hepatomegaly was presented in 17.4%, anaemia in 45.8% and thrombocytopenia in 83.3%. As regards the complication data, it was detected hypoglycemia (8.3%), hypertransaminasemia (12.5%), hyperuricemia (6.3%), jaundice (29.2%), respiratory distress (4.2%) and a decrease in the awareness (8.3%). Three patients needed Intensive Care Unit (ICU) and two of them were dead (one P. Falciparum, the other one was not diagnosed). The response to treatment was good in most of the cases (48% quinine – quinidine + doxycycline, 20% atovaquone-proguanil and 20% chloroquina).

Discussion: Paludism is an illness caused by Plasmodium (P. falciparum, P. vivax, P. ovale, P. malariae, P. knowlesi). It is endemic in many parts of Africa, Asia and Central and South America. Moreover it is potentially lethal depending on the species that causes it, the age of the patient, the possible complications and the results of the treatment. The incidence in our country is

increasing due to the journeys and the immigration so we always have to bear it in mind when we find a patient with high fever who belongs to these groups mentioned before.

Conclusions: There is an increase in the diagnosis with malaria in our country. Despite the seriousness in some specific cases, when the diagnosis is made fast and the treatment is adequate, there are not complications. The execution of prophylaxis decreases the diagnosis but it does not exclude it.

A-246
PLASMA LEVELS OF PENTRAXIN 3 ARE ASSOCIATED WITH BACTEREMIA AND POOR OUTCOME IN FEBRILE PATIENTS WITH TYPE-2 DIABETES

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Objectives: New markers are needed to predict bacteremia in febrile patients at high risk of poor outcome. We investigated the value of pentraxin 3 (PTX3) as a biomarker for disease severity in a cross-sectional non-interventional pilot study of type-2 diabetic patients presenting with fever at the emergency department.

Material and method: Plasma concentrations of PTX3 and C-reactive protein (CRP) were measured by an ELISA assay in 64 patients with fever (> 38.0 ºC) and signs of systemic infection for at least 2 days. Empirical antibiotics were initiated after blood cultures and adjusted according to clinical and radiological findings. At the 30-day follow-up visit blood samples were taken from 49 patients after full recovery. Nonparametric tests were used throughout the study. The Mann-Whitney U test was used for evaluating the difference between different groups, and Spearman's rank correlation coefficient for evaluating correlations. Statistical analysis was performed using SPSS 14.0.

Results: Bacteremia were detected in 17 patients (Gram-negative bacteria in 11 cases), 6 of whom developed septic shock (three deaths). Patient characteristics and laboratory data (median and range) are summarized below. The values of these biomarkers decreased to normal values at the follow-up visit and were: Plasma PTX: 3 4.7 µg/L (0.5-14 mg/L), and CRP levels: 2.1 mg/l (0-6.2.0 mg/L). High PTX 3 levels have better prognostic value for bacteremia (AUC = 0.72; 95%CI 0.60-0.83) than CRP (AUC = 0.67; 95%CI 0.59 -0.81).

Discussion: PTX 3 may be particularly useful to diagnose septic conditions because of its induction by proinflammatory cytokines and bacterial products (Pierrakos et al. Crit Care. 2010;14(1):R15). PTX 3 could be a better early marker of bacteremia than CRP due to its rapid release to blood-stream.

Conclusions: PTX 3 is an early predictor of bacteremia and septic shock in febrile patients with type 2 diabetes.

A-247
NUMBER OF CASES OF INFECTIOUS SPONDYLODISCITIS TWO YEARS DIAGNOSED IN INTERNAL MEDICINE SERVICE (IMS) OF A HOSPITAL OF SPECIALTIES OF THE SAS

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Objectives: Infectious spondylodiscitis (IS) condition which incidence has increased on last years. We study clinical and epidemiological characteristics EI diagnosed on SMI during two years.

Material and method: Descriptive observational study. Select patients admitted during two years, with EI diagnosis. Variables studied: age, sex, symptoms, clinic, evolution, additional tests, microbiological study (blood), time (guided spinal puncture, visceral abscess) and treatment (medical/surgical).

Results: Patients diagnose for IE: 7. male: 57%. Average age: 57 years old (35-81). Most common symptoms were low-back pain and fever, present on 100% cases; other symptoms were chills and shivering, asthenia and less frequently, root compression. Time between symptoms onset and diagnosis was 5 weeks. Patients presented a pathological X-ray on 100% cases. Other tests were conducted complementary: NMR on 100% cases and CT by 57%. Vertebral segment affected most frequent was lumbar (92.85%) followed by dorsal (8.2%). Patients percentage with isolated discitis was 16% and spondylodiscitis 84%. Location was vertebral unique on 71.5% and multiple on 28.5% of patients. Psoas abscess appeared on 42.85% and 28.57% epidural abscess. Patients presented severe Sepsis clinic on 42.85% of cases and data of Leukocytosis and high CRP on 71.4%. Septic focus was, in order of frequency: bacteremia of unknown origin, handling medical, urinary and previous spinal surgery. Microorganism isolated on blood cultures on 71.42% cases, spinal puncture guided 5.71%, cultivation of hepatic abscess 5.71, other 5.71%. No patient presented endocarditis associated. Most frequent microorganisms isolated were S. aureus and E. coli, on 42.85% each one, S. epidermidis was isolated on 14. 28%. For treatment, antibiotherapy was used on 100% of cases, most frequent were B-lactam and ciprofloxacin, on one case of B- lactam allergic patient vancomycin was used in addition vancomycin. psoas abscess needed drained on 14.28% patients and surgical intervention was required on 42.85% cases either by commitment neurological (28.57%) or by replacement of osteosynthesis materials (14.28%).

Discussion: Findings on our patients do not differ with characteristics described on bibliography, being location, differential delay, etiological agents and similar percentage of complications. If struck us by the frequency of enteric bacterium as etiology, although our series still small.

Conclusions: We must take IE into accounting differential diagnosis of patients with axial pain, fever and reactants increase, or history of infections or procedures susceptible of bacteremia. Lateral simple x-ray can make us suspect diagnosis must be confirmed with NMR and microbiological cultures. Diagnosis and home early treatment is essential to reduce number of complications and sequels.

Table 1 (A-246). Patients characteristics and laboratory data

	Bacteremia	Non-bacteremia	Septic shock	p value (bacteremia versus non-bacteremia)
Age, years	67 ± 11	68 ± 12	70 ± 9	
Pneumonia, n (%)	6 (35)	20 (43)	2 (33)	NS
Urinary tract infection	7 (41)	18 (38)	3 (50)	NS
Other or unkown focus	4 (24)	9 (19)	1(20)	NS
Charlson Index	4 (2-7)	4 (2-8)	5 (3-8)	NS
C-reactive protein (mg/L)	84 (31-175)*	79 (28-167)	91 (45-182)*	< 0.05
Pentraxin 3 (µg/L)	35 (10-217)**	16 (4-182)	58 (23-198)**	< 0.01

A-248
PATTERN OF DISEASES ASSOCIATED WITH MSSA OR MRSA

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Objectives: Infections caused by Methicillin-resistant Staphylococcus aureus (MRSA) are cause of increasing concern worldwide, as its spread in the community seems to rise steadily. However, many aspects of its relative pathogenicity, invasiveness and clinical spectrum remain to be defined.

Material and method: We reviewed the medical records of all patients cared for at the Hospital de Sierrallana between January 2009 and December 2011 in any of whose biologic samples sent for bacteriologic culture Staphylococcus aureus had been isolated. Culture, identification and antibiotic resistance was performed throughout the period studied by means of the automated PHOENIX system (Becton-Dickinson, San Jose, USA) with panels PMIC/ID-73 according to the CLSI standards. Multiple isolates from single clinical episodes were counted as only one, as were multiple isolates from a single chronic source (most commonly, chronic vascular ulcers). Cases were classified into 2 groups according to the susceptibility of the isolates to oxacillin (MRSA, o methicillin-susceptible, MSSA), which were then compared regarding their clinical characteristics and in-hospital mortality. We used the Charlson index to evaluate co-morbidity, classifying patients as having no (index: 0), low (index: 1-2) or high co-morbidity (index > 2).

Results: 444 cases fulfilled the criteria specified above. Table 1 summarizes their most relevant clinic-epidemiologic characteristic broken down by study group (methicillin-resistance). Table 2 shows the clinical diagnoses. The distribution of the latter by study group revealed no significant differences (p = 0.120) Sixteen (13.9%) cases of MRSA and 93 (28.3%) of MSSA were complicated by bacteremia (p = 0.003). The in-hospital mortality was 12.2% and 7% for MRSA and MSSA groups respectively (p = 0.115).

Conclusions: MRSA represents a significant problem among both community acquired and nosocomial infections in our area. The pattern of diagnoses associated with S. aureus does not differ whether the isolate is MRSA or MSSA, although the frequency of bacteremia associated with each type of isolate does. However, this seems not to influence in-hospital mortality.

A-249
INCIDENCE OF ESBL GRAM-NEGATIVE BACILLI ISOLATED FROM URINARY TRACT INFECTIONS IN A SMALL COMMUNITY HOSPITAL IN NORTH SPAIN

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Objectives: The objective of the study is to describe the incidence of ESBL gram-negative bacilli isolated from urinary tract infections in a small community hospital in the north of Spain and compare our data with other sources.

Material and method: A retrospective study was designed. We collected data from the microbiology laboratory since April 2011 to April 2012. We analyzed Escherichia coli and Klebsiella psneumoniae strains isolated from urinary tract infections. We investigate the origin of the specimens: primary health care vs emergency department vs hospitalization.

Results: We analyzed 5,737 urinary cultives whom were positive 1583 (27.6%). The frequency of Klebsiella pneumoniae isolates were 95 specimens (6% of total) and the frequency of Escherichia coli isolates were 994 specimens (62.8% of total). The overall percentage (range) of ESBL production among Escherichia coli and Klebsiella pneumoniae was 6.3% and 5.2%, respectively. The total incidence of ESBL-type bacteria in urinary tract infections was 4.3% (68 from 1,583 cultives). The origin of the specimens were primary health care more than the hospital (60.3% of total); 41 vs 27 cases. These specimens from the hospital were obtained more frequently in the emergency department (70.3%) In our study, the principal risk factors related to the development of ESBL-producers bacteria in urinary tract infections were: reside in nursing homes, urinary catheterization and ambulatory antibiotic overuse.

Discussion: Extended-spectrum lactamase (ESBL)-producing Escherichia coli and Klebsiella pneumoniae are an increasing cause of community and nosocomial infections worldwide. In a Spanish study GEIH-BLEE 2006 published in 2009, the incidence was 4-5%, although some large hospital presented incidence between 10-20%. In this study the acquisition was considered community acquired in most cases. The positive urine cultive in the hospitalization, were cultives obtained in the emergency department.

Table 1 (A-248)

	Male sex	Age	Hospital acquired	Comorbidity (None/Low/High)	Risk factors for MRSA
MRSA (n = 115)	61.7%	73.8	18.3%	33%/33%/33.9%	60.9%
MSSA (n = 329)	63.1%	65.9	24.6%	52.3%/23.4%/24.3%	39.5%
p value	0.738	0.000	0.198	0.002	0.000

Table 2 (A-248)

	Primary bacteremia	Orthopedic surgery	General surgery	Other abscesses	Skin and soft tissue	Respiratory	Urinary
MRSA	11 9.6%	3 2.6%	7 6.1%	13 11.3%	58 50.4%	14 12.2%	9 7.8%
MSSA	49 14.9%	24 7.3%	26 7.9%	46 14.0%	140 42.6%	29 8.8%	15 4.6%
Total	60 13.5%	27 6.1%	33 7.4%	59 13.3%	198 44.6%	43 9.7%	24 5.4%

Table 1 (A-249). ESBL producers. Community-acquired vs hospital-acquired

Bacteria (N 68)	Community- acquired (N 41)	Hospital-acquired (N 27)
E. coli (N 63)	38 (60.3%)	25 (39.7%)
K. pneumonia (N 5)	3	2

Conclusions: The ESBL gram-negative bacilli mainly occurred in islolates from outpatiens more than hospitalization. The incidence of ESBL- type bacteria is relatively low (4-6%) in our hospital. We must prevent the mechanism of community-acquired of ESBL.

A-250
COMMUNITY ACQUIRED PNEUMONIA IN A SHORT STAY UNIT. CLINICAL-EPIDEMIOLOGICAL STUDY FOR 6 YEARS. UNIVERSITY HOSPITAL GUADALAJARA, SPAIN

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Objectives: Pneumonia is a common cause of admission to the Short Stay Unit (SSU). Our goal is to make a descriptive study of clinical and epidemiological data of this entity in the province of Guadalajara, y and consider whether there are guiding factors of poor prognosis and long hospital stay.

Material and method: We reviewed the medical records of patients admitted to the SSU from June 2006 to May 2012. We collected clinical and epidemiological data of all patients diagnosed with pneumonia by chest radiographs pathological. Statistical analysis was performed using SPSS.

Results: There were 241 cases, with an incidence rate of 4%, the predominant sex was male 57.7%. The median age was 69 years (IIQ 47.25 to 79). The average stay was 4.4 days ± 4.2 days. We studied the frequency of smoking (18.7%), drinking (6.5%), COPD (22.8%), number of previous admissions for respiratory infections. 74% had no previous hospitalization. Clinically, in order of frequency cough (80.1%), fever (63.8%), malaise (61%), purulent sputum (58.9%) and pleuritic chest pain (42.3%). FINE 1 (25.6%) and 3 (25.2%) were the most frequent. FINE 4 (22.8%), FINE 2 (15%) and FINE 5 (11.4%). In CURB-65 scale score; 0 (30.1%), 1 (37%), 2 (26.4%) and 3 (4.5%). The presence of renal failure does not affect the average length of stay (p = 0.54) but it does respiratory failure (40.2%). Patients with respiratory failure have a stay over 3 days compared to those who do not (p = 0.006). FINE Patients with greater than 3 have an average stay of over three days compared to those with a FINE lower (p = 0.001). Patients who have a crub-65 greater than three have an average stay of over three days compared to those with a CURB-65 lower (p = 0.006). Blood cultures were taken at 30% yielding five isolates, two of pneumococcus. Sputum culture was requested in 16.6% with 5 isolates. Legionella antigen in urine was applied in 52% with two positive cases. Pneumococcal antigen in urine was applied in 51.6% to be positive at 6.1%. The BAAR was requested in 13% and detected two cases of tuberculous pneumonia. The median duration of treatment was 11 days IIQ (10-15). The median review in the clinic outpatients IIQ was 7 days (7 to 28.75). The most commonly used antibiotics were levofloxacin (48.4%), amoxicillin-clavulanate (15.4%), cephalosporins (12.6%) and 6.5% were associated with cephalosporin and macrolides. Only had to modify treatment in 18 patients, treatment failure (9) and gastrointestinal intolerance or allergy (5) mainly.

Discussion: The patients with pneumonia who are admitted in our unit do not have a significant critical condition, without previous admisions, no toxic habits and low CURB-65 and FINE, even without hospital admission criteria. However we have found that in these patients with FINE 1 and 2 with only 24-48 hours of admission decreased significantly the time of presence of symptoms, with less morbidity. We emphasize the low detection of bacteria in blood cultures (only 4 cases compared to 10-15% of the literature).

Conclusions: We obtained 241 cases of pneumonia where pneumococcus was the most frequently detected germ (two blood cultures and fifteen antigens in urine). They are men of 70 years on average, whithout toxic habits or bronchopaties. They present malaise, cough and expectoration with FINE 1 or 2, CURB-65 0 or 1. The hospital stay was 4.4 days and the treatment used was levofloxacin and amoxicillin-clavulanate with cephalosporins. We note the early defervescence of symptoms with hospital treatment for 24-48 hours. Patients with higher average hospital stay are those with respiratory failure, and CURB-65 and FINE greater than 3.

A-251
EVALUATION OF PATIENTS STUDIED BY PROLONGED FEVER IN INTERNAL MEDICINE CONSULTATIONS OF A REGIONAL HOSPITAL

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Objectives: Assess the characteristics and final diagnoses of the patients studied in our consulting M. Internal by prolonged fever.

Material and method: A total of 51 patients referred to our consulting for evaluation of prolonged fever, was selected randomly, between January and December 2011. Patients with febrile episodes of short duration and resolved with the arrival to consulting were excluded. We conducted a descriptive study by reviewing the medical records analyzing variables such as sex, age, epidemiological history, source of derivation, previous antibiotic treatment, the application and results of acute phase reactants, tumor markers, ANAS, serology (hepatitis virus, mononucleosis, HIV, Rose Bengal, Rickettsia, Coxiella), mantoux, cultures and sample type, the existence of alterations in blood count (anemia, leukocytosis, lymphopenia, lymphocytosis, neutropenia and neutrophilia), application of imaging tests (primarily chest x-ray, abdominal CT, abdominal ultrasound), the existence of hepato-splenomegaly, if treatment with doxycycline was scheduled and the final diagnosis.

Results: The 54.90% were male with mean age of 46.43 years (age range 18-86) with no history of epidemiological interest (76.47%) only one patient with rickettsiosis referred tick bite. The 66.6% had received prior antibiotic therapy primarily: 23.5% amoxicillin-clavulanate, 11.76% 20.58% levofloxacin and doxycycline, several antibiotic regimens being used up by 23.5%. The 68.62% were referred from hospital emergency and the rest from A. Primary. The Mantoux only requested in 25.49%, tumor markers in 56.86%, acute phase reactants in 94.12%, ANAs in 56.86%, Hepatitis virus in 70.58%, the mononucleosis virus in 74.50%, cultures in 74.50% (68.42% blood cultures, 65.79% urine cultures, BK 13.16%, cultures of sputum 5.26%, stool cultures 18.42%, wound exudates and catheter culture in 2.63%, and more specimens in 55.26% especially HC and UC 42.85%). Only 2 urine cultures were positive, and remaining cultures were negative. In the blood count was obtained lymphopenia in 43.13%, neutropenia in 19.60%, neutrophilia 17.64%, and anemia in 19.60%. The mean value of ESR was 47.64 and of CRP was 58.8. HIV was positive only in one case, with HBV and HCV negative in all requested. EBV IgM was positive in 10.53%, CMV IgM in 15.79%, serology for Rickettsia in 16.67%, the Rose Bengal and IG M Toxoplasma negative in all cases. All patients were on a chest radiography, abdominal ultrasound in 70.59%, TAC in 45.09%, and in a case echocardiogram (patient with endocarditis). The 15.68% had hepatomegaly and 19.60% had splenomegaly. The 60.78% of the patients was treated with doxycycline. The final diagnosis was an infection in 74.51% (21.05% infectious mononucleosis and FOD inconclusive studies, 15.78% Q fever and 7.89% rickettsiosis), neoplasia in 9.80% (40% lymphoproliferative syndrome) and Systemic disease 15.68% (37.5% IBD).

Conclusions: Most of the patients in our center for prolonged fever are immunocompetent middle-aged without epidemiological history of interest, prior treatment with antibiotics, and they are derived after evaluation in our emergency department. In most

were request acute phase reactants, serology of hepatotropic virus including mononucleosis virus serology, Rickettsis serology and cultures (especially blood and urine cultures), and radiological tests, mainly chest film and abdominal ultrasound, and the treatment with Doxycycline was initiated before concluding the studies. The final diagnosis in most cases are infectious processes, especially infectious mononucleosis, Q fever and Mediterranean spotted fever followed by systemic diseases especially IBD, and finally neoplasia, mainly chronic lymphoproliferative syndrome, leaving a high percentage of fever of unknown origin with study despite inconclusive evidence.

A-252
PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE AND COMORBIDITIES

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Objectives: Chronic obstructive lung diseases commonly coexists with other severe chronic diseases such as heart failure, diabetes mellitus, arterial hypertension, etc. The target of the study is to find their correlation.

Material and method: Retrospective study of 250 patients with chronic obstructive lung diseases, hospitalised in the Department of Internal Medicine in the period 2009-2011. Patients' age distribution 50-85 years.

Results: Comorbidities found: diabetes mellitus 45%, heart failure 40%, arterial hypertension 35%, myocardial infarction 23%, obesity (BMI > 27) 47%, depression and organic functional psychosis 12%, lung cancer 3%, bowel cancer 5%, prostate cancer 0.8%, infections 60%, alcohol abuse 3%.

Discussion: A) Patients vaccinations compliance pneumonococcus 1%, Influenza 25%, B) Late stages of chronic obstructive diseases (Gold classification stages III and IV) are linked to increased incidence of steroid diabetes.

Conclusions: Chronic obstructive lung disease is a multifactorial disease with many comorbidities. The necessity of multilateral tackle is raised for early diagnosis through preventing complications and population awaking for vaccination.

A-253
THE ROLE OF CYTOLOGY AND HUMAN PAPILOMAVIRUS TESTING IN ANAL CANCER SCREENING IN HIV POSITIVE MEN WHO HAVE SEX WITH MEN

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Objectives: To evaluate in the screening of high-grade lesions (HGAIN) and C. in situ in anal mucosa, if together PCR of HR-HPV and citology of the anal mucosa are more sensitive than the citology alone in a cohort of MSM HIV.

Material and method: Prospective cohort study composed by HIV-positive MSM patients seen at an Infectious Diseases Unit. The collected data were epidemiological, clinical, analytical and were taken 2 samples from the anal mucosa: one for PCR of HPV, and one for cytology every 6 months, and rectoscopy was realized in case of HSIL, and/or HR-HPV or LSIL in two occasions in 6 months. The cytological classification used was Bethesda, and the histological was Richardt.

Results: 157 patients were included, 37.3 ± 9.7 years. At this moment, 79 rectoscopies were realized: 30.4% were normal and 69.3% pathological (61.8% AIN I, 36.7% HGAIN and/or C in situ and 1.8% indeterminate). The Sensitivity (S), Specificity (Sp), predictive positive (PPV) and negative Value (PNV) of the LSIL cytology to diagnosis HGAIN and/or C in situ, were 87.5%, 46.9%, 35%, 92%, p = 0.014; for HR-HPV alone were 76.7%, 33.3%, 31.7%, 77.8%. S, Sp, PPV and NPV of the cytology and HR-HPV were 100%, 17.5%, 31.8%, and 100%, respectively.

Conclusions: HR-HPV with cytology helps to better classify healthy subjects, so that when both tests are normal confirms that the patient does not have dysplasia. In patients with LSIL in the cytology, the rectoscopy should be done directly.

A-254
RISK FACTORS IN THE PROGRESSION OF LOW GRADE INTRAEPITHELIAL NEOPLASIA (LGAIN) IN A COHORT OF HIV MSM

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Objectives: To analyze in a cohort of HIV-MSM, the predictors of progression of LGAIN to HGAIN.

Material and method: We performed a prospective study (December 2008-April 2012) composed of VIH-HSH belonged to cohort of seropositive patients of an Infectious Diseases Unit from a hospital in southern of Spain. These patients were included in a program of anal dysplasic lesions screening. That program enclosed anal cytology, PCR of HPV and anuscopy. Patients diagnosed with AIN I were subjected to an annual checkup that included anal cytology, HPV PCR and anuscopy.

Results: 157 patients were included, with average age of 37.3 ± 9.7 years. In the basal visit 79 anuscopies were conducted: 30.4% normal and 69.3% pathological (61.8% AIN I, 36.7% HGAIN and/or carcinoma in situ and 1.8% indeterminate). 15.2% of patients with AIN I progressed to HGAIN in a median of 22 months; Density Incidence of progression was 9.6 new cases-1,000 person/year. Factors associated with progression of LGAIN to HGAIN were to be younger p = 0.036; number of sexual partners in 6 months prior, p = 0.03; diagnosis of HIV at a younger age p = 0.02, and higher levels of CD4 cells, p = 0.03. The rest of variables analyzed like education, employment, AIDS stage, ARV, smoking, alcohol, STD, genotypes or number of HPV, viral load were not related.

Conclusions: one in every six of patients with LGAIN progress to HGAIN in two years, and usually those who were diagnosed with HIV younger, early age and with more partners in the previous 6 months.

A-255
CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF PNEUMONIA PNEUMOCOCCAL IN PATIENTS ADMITTED TO THE INTERNAL MEDICINE DEPARTMENT

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Objectives: To study the prevalence and clinical and epidemiological characteristics of pneumococcal pneumonia presented by patients who have been admitted to the Internal

Medicine Department of Leon University Hospital, Virgen Blanca Building in the period from November 2011 to February 2012.

Material and method: Retrospective descriptive study conducted by Internal Medicine Department in the period from November 2011 to February 2012. This study was carried out reviewing medical reports. Results were expressed as percentages and average.

Results: Out of total 1.388 patients admitted, 147 were diagnosed pneumonia, during this period. 13 of these persons (8.84%) were diagnosed with pneumococcal pneumonia. Means of acquiring pneumonia: 9 Community (70%), 3 healthcare associated (23%), 1 nosocomial (7.7%). Average age: 83 years. Gender: 46, 5% women, 53.8% men. Average Charlson Index: 4.8. Clinical signs: 73% cough, 73% dyspnea, 38.4% sputum production and 34.8%purulent sputum. Location of pneumonia: 61.5% LID, 30% LII, 15.4% LSI, 23% LSD. Affectation: 69.5% lobar and 30% bilobar. Sepsis associated: 77%. Average hospital stay: 13.15 days. Mortality rate: 15.4%. Empirical antibiotic treatment with beta-lactams 77.7%. Seasonal predominance: January: 38%; February: 54%; November: 7.7%. Diagnosis: 92.3% by urine antigens, 77.7% blood cultures and 4.4 % sputum culture. Due to sputum culture and blood cultures: 7.73%. Due toc ulture and urine antigen 7.73%.

Discussion: S. pneumoniae is the most common cause of community-acquired pneumonia. Nevertheless many studies show that the microorganism can only be identified between 5-8% of the cases. The sputum culture is negative in more than 50% of patients, even between patients with the bacteraemia. In the best situation, in the 17% of the cases, blood cultures are positive before antibiotic pre-treatment. However, we use a diagnostic test that it is not affected by treatment, and it presents a high sensitivity and specificity, as these are the determination of pneumococcal antigens in the urine. In our study the most frequent identified microorganism was S. pneumoniae. The most effective etiologic method of the diagnosis has been the pneumococcal antigen determination in the urine. Highlights in our study, the empirical antibiotic therapy had not been delayed by the adsense the etiologic diagnosis, as the most important clinical guidelines recommend. This actuation probably improved the good development of our patients with severe pneumococcal infections.

Discussion: S. pneumoniae. is the most common identified etiology as cause of pneumonia. In our study, the most useful diagnostic test, in the cause of classics signs and symptoms and radiological are present, it is the determination of pneumococcal antigens in the urine. The empirical treatment with beta-lactams has been effective, as it is possible to deduced from the high survival of our patients with severe pneumonia pneumococcal.

A-256
INFECTIOUS DISEASES CONSULTANCY IN SURGICAL DEPARTAMENTS IN A MEDIUM GENERAL HOSPITAL: EPIDEMIOLOGICAL DESCRIPTION AND VALUATION OF THE IMPACT OF ANTIMICROBIAL HOSPITABLE EXPENSE

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Objectives: There is evidence that interventions to improve antibiotic prescribing in hospitals are effective. The establishment of prospective audits with intervention and feedback ("audits") seems to be one of the strategies with most impact on the appropriate use of antimicrobials (level of evidence IA). Our purpose is to describe epidemiologically the attended patients with a infections consultancy in surgical services, and valuate its impact in the global pharmaceutical expense of antimicrobials.

Material and method: The program was developed in four surgical services for a period of 6 months. Every day we reviewed all positive cultures in the microbiology department, commenting each case with a microbiologist specialist. Then, we performed a non-tax specialist advice to the responsible physicians for each patient by one or more visits to patients. The consultant also receives direct interconsultations. We want to describe epidemiologically the patients attended and valuate the potential impact on pharmaceutical expense of antimicrobials measured by defined daily dose (DDD) and DDD/100 stays, comparing the period served against a similar period the previous year dates.

Results: We included a total of 94 patients during the studied period. The mean age was (DE) 64.93 (20.4) years, and the predominance of male sex 53 (56.4%). The type of infection was predominantly nosocomial (64.9%) compared to the community (35.1%). The most frequent comorbidities were diabetes mellitus (17.1%) and the existence of an active malignancy (17%). The most common location of infection was the urinary (46.8%) and infection of surgical wounds (30.9%). The most common bacteria was Escherichia coli producing extended-spectrum beta-lactamase (ESBL) (40.4%) followed by coagulase-negative Staphylococcus (9.6%) and Pseudomonas aeruginosa (9.6%). The predominant origin of patients was General Surgery (GS) (43%). Complications during follow-up were few (sepsis (3.2%) and septic shock (2.1%)). The number of visits during follow-up was (SD) 1.86 (1.72). Overall, we observed a decrease in expenses (40,677 vs 33,974 (-16.5%)), mainly due to service of GS (30,598 vs 22,499 (-26.4%)). The savings were primarily due to carbapenems and piperacillin tazobactam, although antibiotic consumption measured by DDD and stays DDD/100 was generally greater (4927 vs 6197 (+20.5%) and 210 vs 248 (+16.3%) respectively).

Conclusions: Efforts to optimize the use of antimicrobials may have a beneficial impact from the economic point of view. Efforts to optimize antimicrobial use have to meet the requirements of the optimization programs antimicrobial use in hospitals to measure and ensure its effectiveness.

A-258
PREVALENCE AND CHARACTERISTICS OF UROGENITAL TUBERCULOSIS IN PATIENTS PRESENTED WITH UROGENITAL INFECTION IN THE EMERGENCY DEPARTMENT OF A TERTIARY HOSPITAL

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Objectives: Pulmonary tuberculosis (TBC) is more dangerous and obvious, but extrapulmonary TBC is also contagious and potentially lethal and it affects the quality of life much more than pulmonary tuberculosis. However, the total number of patients presented in tertiary hospitals with undetected, mostly complicated urogenital male TBC remains high among all patients with urogenital infection or newly diagnosed pulmonary TBC. Moreover, urogenital TBC is the second most common form of extrapulmonary TBC in countries with a low incidence of TBC.

Material and method: The rate and trend in extrapulmonary TBC incidence including urogenital TBC was estimated and recorded in 200 patients presented in the Emergency Department of our hospital for urogenital infection from January 2012 up to June 2012.

Results: In approximately 65% (n = 130) of the studied patients, involvement of the genitourinary system was due to a reactivation of an old dominant pulmonary disease. Abnormal urinalysis was

seen in up to 90% (n = 180) and sterile pyuria was detected in up to 75% (n = 150) of urogenital TBC patients. Hematuria was present in about 50% (n = 100) of patients. Non specific pyelonephritis was seen in 56% (n = 112) of patients. Mycobacterium tuberculosis was detected in urine in 64% (n = 128) of cases by urine acid fast bacteria cultures. In 34% (n = 68) of patients bacteriological verification was not possible due to the widespread previous use of quinolones for the treatment of concomitant urogenital infections. The Mantoux test was positive in more than 90% (n = 180) of patients. Ureter was involved in TBC process in 27% (n = 54) of urogenital tuberculosis cases, urinary bladder in 21% (n = 42), and in 43% (n = 86) of cases renal tuberculosis was combined with male genital tuberculosis.

Discussion: TBC is a common disease worldwide and has many implications for the clinician. In developed nations, TBC is relatively uncommon, but the risk of acquiring the disease is increased in older individuals presented with old pulmonary TBC. The signs and symptoms of renal TBC mimic those of other infections of the kidney, so diagnostic awareness may prevent unnecessary morbidity.

A-260
IMPORTED MALARIA IN A TERTIARY CARE HOSPITAL IN MADRID, SPAIN

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Objectives: To investigate the clinical and epidemiological features of patients with malaria infection in our department, as well as the rates of prophylaxis and the type of anti-malarial treatment used in these patients.

Material and method: We conducted a retrospective, descriptive study. We selected the confirmed malaria cases admitted to the Department of Infectious Diseases in our tertiary care hospital in Madrid during the period 1995 to 2011.

Results: Fifty one patients (32 males and 19 females with a mean age of 36.5 years) were included. Twenty seven cases (53%) were immigrants visiting friends and relatives (VFRs), twelve (26.5%) were tourist and the other twelve (26.5%) had traveled for work to malaria endemic areas. Malaria was acquired in Africa by 76.5% of patients and South America by 17.6%. The most common species was Plasmodium falciparum (70.5%), followed by P. vivax (17.6%) and P. ovale (4%). All of the patients were symptomatic (fever in 82%). Moderate anemia (cut off Hb level 9 mg/dL) was observed in 17.6% of the cases and thrombocytopaenia in 57%. Severe malaria was recorded in 9 patients (17.6%). Cerebral involvement was described in 5, respiratory distress in 5, acute renal failure in 4 and hyperparasitaemia (> 10%) in 4 patients. Six cases were admitted to the intensive care unit (one fatal case). All of the patients with severe malaria were infected with P. falciparum. Of the 51 cases, eighty percent (41) didn´t take any chemoprophylaxis, and only one followed a correct anti-malarial prophylaxis according to the WHO recommendations. Only 1 of 27 VFRs took prophylaxis. Quinine plus doxycycline was prescribed in 75%, while artesunate was given in three cases (6%).

Discussion: In the last few years, the number of immigrants from tropical countries where malaria is endemic and the number of travelers have increased significantly. Falciparum malaria, the most common species in travelers, can potentially cause severe clinical illness, causing renal impairment, coma, acute respiratory failure, disseminated intravascular coagulation or severe anemia. Lack of proper prophylaxis is associated with severe complications and death. However, the rates of use of chemoprophylaxis are still low, as in our series, particularly in immigrants visiting friends and relatives (VFRs), who constitute the most significant group of travelers for malaria importation in developed countries. Quinine and doxycycline are still the drugs of choice in our country for the treatment of P. falciparum malaria, although the artemisinin derivatives, such as artesunate, have been used for the treatment of severe malaria with clear benefits in recent years.

Conclusions: Malaria is a potentially severe and preventable disease in immigrants and travelers to endemic areas. We want to stand out the low rate of use of chemoprophylaxis and create awareness concerning this phenomenon. Quinine-based therapy remains the most widely used treatment for P. falciparum malaria, although the artemisinin derivates have became the treatment of choice worldwide.

A-261
ANTIMICROBIALS USED IN THREE CLINICAL DEPARTMENTS IN A THIRD LEVEL HOSPITAL

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Objectives: To analize the most frequently used antimicrobials in the departments of Internal Medicine, Pneumology and Gastroenterology.

Material and method: Cross-sectional descriptive study about antimicrobials used in three clinical services (Internal Medicine, Pneumology and Gastrointestinal Department) randomly chosen in a specific day of May 2012. The antimicrobial used was reviewed as well as the administration route and the indication. The results were analized using the Excel database and the SPSS 19.0 software.

Results: Out of the 64 analized patients, 42 received an antimicrobial during their admittance (65.5%). The most common administration route was parenteral in 92.7% of cases and oral in only 7.3%. The indication of treatment was mainly due to a community infection (48.4%) and the most frequently used antimicrobial was ciprofloxacin (25.8%). The next ones most frequently used were piperacillin/tazobactam (22.6%) and amoxicillin/clavulanic acid (16.1%). In 7.8% of cases the indication was a hospital-acquired infection (nosocomial infection), when imipenem was by far the antibiotic most used. A 4.7% of cases were due to an infection acquired in a long stay center, like a hospice. In these situations piperacillin/tazobactam, ceftriaxone and levofloxacin were prescribed in 33.3% of the cases each. In 1.6% of cases the antibiotic indicated was unknown. Only one case was found where the antibiotic indication was prophylaxis and the one used was ciprofloxacin. By pathologies, the antimicrobials most used in intra-abdominal infections were imipenem and piperacillin/tazobactam, in the same proportion (50%). In acute gastroenteritis, metronidazole. In urinary tract infections without microbiological confirmation, cephalosporin (25%) and levofloxacin (25%). In pneumonias, piperacillin/tazobactam (33.3%) and levofloxacin (25%).

Discussion: More than half of the patients from the 3 hospital floors analized received on admittance an antibiotic and it was provided mainly intravenously. The infections because of which antibiotics were prescribed were very diverse. The majority of the antimicrobials used were given for the treatment of a community infection, choosing generally a quinolone. Conversely, when there was a nosocomial infection a broad spectrum antibiotic was preferred, similar to what is disclosed in the literature.

Conclusions: More than half of the patients admitted to the departments randomly chosen had an antibiotic prescribed the day of the study. The antibiotic was given mainly intravenously. The

results were similar to those reported in the literature, using quinolones for community infections and broad spectrum antibiotics for nosocomial infections.

A-262
MANAGEMENT OF EARLY ONSET PROSTHETIC JOINT INFECTION WITH DEBRIDEMENT AND IMPLANT RETENTION

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Objectives: The number of patients requiring a joint replacement is increasing worldwide. The most serious complication is infection, with an incidence of 1.5-2.5% for primary interventions. These infections can affect functional status and quality of life, and the economic cost is very important. Debridement with implant retention is an attractive option for the management of early onset prosthetic joint infection (EOPJI). Our objective is to describe the clinical characteristics and outcomes of patients with confirmed EOPJI in our institution.

Material and method: We retrospectively recorded the demographic characteristics, clinical manifestations, diagnostic tests, management and outcome of patients with prosthetic joint infection between June 2002 and June 2010 in our center.

Results: We included 78 cases of PJI, with 36 episodes of culture proved EOPJI, classified when symptoms presented less than 4 weeks after arthroplasty. The median age was 71 years (46-94) and 20 episodes occurred in women (55.6%). 83% of patients had a predisposing factor, cardiomyopathy was the most common comorbid condition (50%), diabetes mellitus (20%), liver disfunction (16%) and 4 four patients were receiving corticosteroids. The most frequent affected arthroplasty was the hip (52.8%), knee (44.4%) and shoulder (1 episode). Only 4 cases (11.1%) were not primary arthroplasties. The median time between the implant and the clinical presentation was 17 days, and the time between the first manifestation and the surgery was 10.3 days (0-32). Pain was the most habitual symptom (75%), followed by inflammatory signs (58%) and fever (25%). The erythrocyte sedimentation rate (ESR) and the C reactive protein were elevated in 94% and 97% (35/36) of the patients respectively. Arthrocentesis was performed in 7 cases, obtaining purulent joint fluid in 2 cases and positive cultures in 6 (all isolations were confirmed with surgical samples). Two patients had another concomitant infection (urinary tract infection (UTI) by Enterococcus faecium and UTI by Escherichia coli producing extended-spectrum beta-lactamases (ESBL). Blood cultures were obtained only in 3 episodes, and 2 were useful to identify the responsible microorganism (S. epidermidis and E. coli ESBL). Staphylococci were the most common pathogens: Coagulase negative S. in 16 patients (44.4%), S. aureus in 7 (2 with methicillin resistance), and one case either by E. faecium and E. faecalis), gram negative bacilli isolated included E. coli in 6 cases (2 ESBL), Enterobacter cloacae in 2, Proteus mirabilis (2), Pseusomonas aeruginosa, Klebsiella pneumoniae, Serratia marcenses and Acinetobacter baumanii. 7 infections (19.4%) were polymicrobial. Debridement with implant retention was the therapeutic option in 31 patients (86%), in 2 patients (5.5%) 1-stage and 2-staged reimplantation. All patients received parenteral antibiotic therapy, usually cloxacillin or vancomicin plus rifampicin for Staphylococcus methicillin sensitive or resistant respectively. The median duration of parenteral therapy was 4.7 weeks (3-13). Oral therapy was initiated in all except two cases (E. coli ESBL) during a median time of 20 weeks (2-52), discontinuing when ESR and CPR were normal and a sequential bone/gallium scintigraphy showed no sign of infection. The most used regimen was ciprofloxacin or levofloxacin plus rifampicin. The outcome was successful in 26 of the 31 patients treated with debridement, 2 patients died after completing antibiotics scheme, and the causes were not related to infection, and 1 patient was lost in the follow up. The success rate in the patients who were treated with this conservative option and who fulfilled the follow up was 93.5% (29/31). In two patients the treatment failed, one needed another debridement during suppressive oral treatment and the final outcome was favourable and other patient underwent an arthrodesis.

Conclusions: Our data suggest that debridement with implant retention combined with parenteral and oral antibiotic treatment until normalization of acute phase reactants and sequential bone/gallium scintigraphy is an effective and safe treatment option in EOPJI.

A-263
USE OF DAPTOMYCIN IN PATIENTS WITH ENDOCARDITIS OR INFECTION OF INTRAVASCULAR CARDIAC DEVICE DURING 2009-2012

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Objectives: Infections caused by Gram-positive organisms are a therapeutic problem because of the spread of strains with multiple resistance to antibiotics used as first-line therapeutic options. Infective endocarditis is a serious form of infection with a high mortality. Medical management can be a challenge because of the sensibility of the microorganism to recommended antibiotics and safety profile. Daptomycin offers a good clinical efficacy profile because of its bactericidal activity and potential synergy with other antimicrobial agents. There are limited data on the use of daptomycin in cases of infectious endocarditis and infection of intravascular cardiac device. The aim of this study is to evaluate the baseline characteristics and mortality of a cohort of 21 patients admitted to our hospital with a diagnosis of infective endocarditis or cardiac implantable electronic device infection treated with daptomycin.

Material and method: We conducted a systematic record of all patients admitted to our hospital with a diagnosis of infectious endocarditis. We analyzed a subgroup of 21 patients treated with daptomycin, and evaluate the epidemiological characteristics, complications and mortality during hospitalization, three, six and twelve months after discharge.

Results: 90.5% of patients were men with a mean age of 64.2 years. As risk factors, 46.7% had underlying heart disease and 33% had heart valve prostheses. The clinical presentation is acute in 66.7% of patients with impaired left valves up by 56.7% and 9.5% of intravascular cardiac device infection. The common symptoms were fever and heart murmur at 43% and 23% debuted with heart failure. The diagnosis in the majority was complemented by transthoracic echocardiography with transesophageal echocardiography. 19% of patients had septic emboli, mainly spondylodiscitis. Up to 66% of patients had cardiac complications, particularly arrhythmias and heart failure. We found negative blood cultures up to 38% of cases, of which 38.1% had previous antibiotic treatment. The etiology was known in 16 cases: 7 cases were coagulase-negative staphylococci, 4 cases of viridans group streptococci, 3 cases of Enterococcus faecalis and 2 cases of Staphylococcus aureus, one of them was an MRSA. The mean treatment duration was 58 days. Required surgical treatment 47.6% of patients, mainly caused by poor control of sepsis with antibiotics and heart failure. During follow-up were three cases of recurrence, one of them was not the same microbiological etiology, and other two cases were of intravascular

cardiac device infection to which a first episode of the pacemaker wires were not removed. At twelve months follow-associated mortality was 24%.

Conclusions: No studies support the use of daptomycin in endocarditis, however is shown as a therapeutic option used increasingly in both endocarditis and in infection of cardiac intravascular device. Its low toxicity and ease of administration also makes an interesting use in patients with high comorbidity and impaired renal function.

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INFECTIOUS DISEASES IN HOSPITALIZED PATIENTS IN CLINICAL AREAS

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Objectives: To learn about the characteristics of the patients admitted to clinical departments that had any kind of infectious disease.

Material and method: Observational descriptive study of patients admitted to the Internal Medicine, Gastrointestinal or Pneumology department of the Virgen de la Concha Hospital of Zamora that had any infectious process in a randomly chosen day of May 2012. The departments included in the study were also randomly selected. The following data were considered: age, sex, McCabe score and medical records of coma, kidney insufficiency, diabetes, neoplasia, COPD, immunosuppression (immunodeficiency, neutropenia, cirrhosis, hypoalbuminemia) or pressure ulcer. It was also analized if the patient was intubated, carried a central or peripheral catheter or a urinary catheter; location of the infection; type of infection; surgical procedure and isolated microorganism.

Results: Of a total of 64 patients, 29.7% were admitted to the Gastrointestinal department and the same percentage to the Pneumology one. Most of the patients were admitted to the Internal Medicine department (40.6%) and older than 65 (76.2%). A 65.5% of them were males and 34.4% females. In relation to the MacCabe score it was found that a 44.4% had a nonfatal disease and 20.6% had a rapidly fatal one. Only a 3.1% of cases were in coma when data were collected. A 20.3% of them had a kidney insufficiency. The same percentage had diabetes. A neoplastic disease had been diagnosed in 15.9% and COPD in 19%. The majority of patients didn't have immunosuppresion (98.4%), nor pressure ulcers. Cirrhosis was present in 6.3% and hypoalbuminemia in 17.2%. Only a 14.3% of patients carried a central catheter while a 93.8% carried a peripheral one. A urinary catheter was present in 17.2%. Only 1 patient was intubated (1.6%). The infection was located in a specific place in 48.4%. The highest percentage was seen in relation to pneumonia (18.8%) and the minimum to celullitis and gastroenteritis (1.6%). The majority of the infections were community-acquired (83%). Only a 3.1% had undergone surgery. Only in 15.3% of cases a microorganism was isolated, being Gram-negative bacteria the most frequent ones (11.5%). Staphylococcus aureus was present in 3.8%.

Discussion: In our study it can be ascertained that the majority of patients were males over 65, which might be related to the high prevalence of elders in the province of Zamora. The main pathological records were diabetes and kidney insufficiency. Most of the patients didn't have immunosuppresion that contributed to facilitate the infection. In more that 50% of the cases the location of the infectious process wasn't found. The majority of the infections were community-acquired. It was quite unexpected the limited isolation of microorganisms. Gram-negative bacteria were the most frequently isolated ones.

Conclusions: High percentage of admitted patients with an infectious process. Majority of patients carrying a peripheral catheter. Scarce isolation of the responsible microorganisms. Predominance of community-acquired infections.

A-268
PERITONEAL TUBERCULOSIS: REVIEW OF TEN CASES

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Objectives: Peritoneal tuberculosis (PT) is an uncommon site of extrapulmonary infection caused by Mycobacterium tuberculosis (TB). Symptoms mimic other abdominal diseases, which makes diagnosis difficult. Objective: retrospective review of all adults admitted to a secondary hospital located in an area of high incidence of tuberculosis and diagnosed with PT in the last 8 years.

Material and method: The authors reviewed clinical data from 10 patients admitted to our hospital and diagnosed with PT between April 2004 and April 2012. Past history, risk factors, presentation signs and symptoms, biochemistry and microbiology data, histopathological exams and diagnostic means used were analysed. Samples were stained with hematoxilin-eosin and Ziehl-Neelsen. The cultural growth means used were MGIT, Lowenstein-Jensen and BACTEC. Only the cases in which the diagnosis was confirmed by histology and/or microbiology were included.

Results: We included 10 patients in our study, 5 males and 5 females, with a median age of 36 years. We found history of other forms of tuberculosis (40%), AIDS (acquired immunodeficiency syndrome) (40%), alcoholism (30%) and cirrhosis (20%) as risk factors for PT. Clinical presentation included ascites (100%), fever (70%), abdominal pain (50%), weigh loss (30%) and diarrhea (20%). A paracentesis was performed and lymphocytic ascitis was found in all cases reviewed. The serum-ascites albumin gradient (SAAG) was less than 1.1 g/dL in 6 cases (among a total of 7 cases in which it was calculated) and adenosine deaminase (ADA) was elevated in the ascitic fluid of 7 patients, normal in 2 and not tested in one. Abdominal ultrasound (US) and/or computerized tomography (CT) were consistent with the diagnosis in 70% of cases. Peritoneal biopsy was performed by laparotomy and diagnostic in 2 cases. All patients started anti-bacillary treatment in the first week of admission and the use of therapeutic agents was then guided by the antimicrobial susceptibility test (AST). One patient died during admission in the onset of septic shock.

Discussion: History of tuberculosis and AIDS were the most important risk factors. In these patients, reactivation of latent tuberculosis may explain the clinical onset. Alcoholism was also relevant and its association with TB is also well known. Clinical presentation of PT cases in our series may resemble other conditions, which makes the diagnosis difficult. Cirrhosis as a simultaneous condition may obscure the diagnosis even more. The cultural exam for TB in ascitic fluid, opposite to direct stain, had a high rate of success (100%) and allowed to test the therapeutic agents. Peritoneal biopsy was performed only in two cases but also showed to be determinant for diagnosis. Other laboratorial parameters such as SAAG and ADA in ascitic fluid besides radiology exams (abdominal US and CT) showed to be useful in the majority of cases. Mortality was low, even in immunodeficient patients. This may support the relevance of starting anti-bacillary treatment in cases which PT is highly suspected.

Conclusions: The suspicion level for PT must be high in a patient with risk factors and lymphocytic ascitis. According to our experience, direct stain exam for TB in ascitic fluid is rarely useful. The cultural exam for TB in ascitic fluid may have a high rate of success and allows TSA. Nevertheless, treatment should be started

when there is a high suspicion and for that instance peritoneal biopsy, measurement of GASA and ADA in ascitic fluid and imaging studies should be considered to achieve the diagnosis.

A-269
DIFFERENCES BETWEEN PATIENTS DIAGNOSED HIV OVER THE PAST 5 YEARS REGARDING ORIGIN

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Objectives: Evaluating the clinical and epidemiological differences at present at the time of diagnosis of the HIV patients according to whether they are foreign or local.

Material and method: We selected a sample of patients whose HIV diagnosis occurred from January 1, 2007 to March 29, 2012, found in follow-up consultation of Internal Medicine, University Hospital of Getafe (n = 143) and compared their characteristics according to whether they were Spanish or foreign by using frequencies to describe the qualitative variables and the mean for quantitative variables. Using as statistics the p of Pearson Chi-square and the t-test with the statistical program SPSS 17.

Results: There were more men (78 vs 58/0.009) and older age in the Spanish group (41.9 vs 38/0.004). No differences were found about the mode of transmission (homo 46 vs 28, hetero 41 vs 62, IDU 6 vs 4 and unknown 7 vs 6). Clinically, there were no differences in the debut of infection (Acute 23 vs 12) nor in the CDC status: A (70 vs 64), B (7 vs 11) and C (22 vs 25)). The CD4 count (442 vs 374) and de viral load (147,256 vs 84,783) showed no significant differences. Finally the HBV or HCV status (1 vs 0 and 12 vs 7) were similar.

Discussion: The origin was not a determining factor in the clinical situation at diagnosis, with only epidemiological differences in age or gender, which could be explained by the integration in the universal health care system of this group.

Conclusions: Despite the asymmetry of the two groups regarding age or gender, we can conclude that currently being foreign or local is not a clinically important difference at the time of diagnosis of HIV in a community hospital of Madrid.

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SPONTANEOUS BACTERIAL PERITONITIS: CHARACTERISTICS AND PATTERNS OF RESISTANCE TO ANTIBIOTICS

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Objectives: Describe the clinical and microbiological characteristics of a population of cirrhotic patients with a diagnosis of spontaneous bacterial peritonitis (SBP).

Material and method: Retrospective study by reviewing medical records of cirrhotic patients with a diagnosis of SBP admitted to Povisa Hospital between 2005 and 2011.We collected the following variables: year of income, age, sex, underlying disease, cirrhosis etiology, clinical manifestations, evolution, classification of SBP, classification of Child-Pugh, MELD-Na, polymorphonuclear count in ascitic fluid, ascitic fluid culture, blood culture, sensitivity testing, antibiotic treatment and outcome.

Results: During the study period a total of 25 cirrhotic patients were diagnosed with SBP. Eighty percent of patients were male, with a mean age of 65 years. Eighty-four percent of patients had at least one associated underlying disease; the most common were liver cancer (36%), cancer (20%), renal failure (20%) and refractory ascites (16%). Etiology of cirrhosis was alcoholic in 60% and hepatitis C virus in 36%.PBE was community acquired in 32% of cases, related to health care in 28% and nosocomial in 40%. The most frequent symptom at diagnosis was abdominal distension (78%), followed by abdominal pain (32%) and fever (28%), with a mean time to onset of symptoms of 5 days. Stage B was the most frequent (52%) in the classification of Child-Pugh, and stage C in the remaining 48%. The mean value of Meld-Na was 20. Only 4 patients (16%) had received antibiotics in the previous 3 months, being the most used cefotaxime (50%). Ascitic fluid culture was positive in 36% and blood cultures in 37% of the cases that were performed. The most frequently isolated microorganism was E. coli (50%).Other microorganisms were Klebsiella pneumoniae, Klebsiella oxytoca, Proteus mirabilis and Streptococcus mitis. All of them were susceptible to amoxicillin, cefotaxime and ciprofloxacin. The most commonly used empirical antibiotics were third-generation cephalosporins, with a mean duration of treatment of 10 days. Fifty-two percent of patients received expansion with albumin. Renal failure developed in 48% of patients. At discharge, 31% of patients received prophylaxis with norfloxacin. Mean hospital stay was 19 days. During follow-up 39% of patients had a new episode of SBP and 88% of them died (36% during admission), being one third of deaths attributable to the SBP. The only independent predictor of death was renal failure. Mean time to death was 9 months during a follow-up period of 22 months.

Discussion: Spontaneous bacterial peritonitis (SBP) is a common infection in cirrhotic patients with ascites. The mortality is approximately 20%. Most cases are caused by the Enterobacteriaceae and Streptococcus sp., part of the intestinal bacterial flora. Third-generation cephalosporins are recommended as initial empiric therapy with a response rate of 80-90%. However, recent publications have raised the alarm about the increase in the incidence of cases of SBP caused by microorganisms resistant to third generation cephalosporins and increased mortality among patients with SBP associated with healthcare or nosocomial. In the study conducted in our area we do not find an increased incidence of organisms resistant to third generation cephalosporins, all of which are sensitive, even though two thirds of cases are nosocomial or related health care. The only independent predictor of death was renal failure. Both overall mortality as attributable to the SBP was similar to other published series. No statistically significant differences were found in regard to mortality related to the etiology of cirrhosis, the presence of cancer, the nature of PBE or received antibiotics in the previous 3 months.

Conclusions: In our environment we must not make changes standard empirical antimicrobial therapy. PBE is a marker of poor prognosis in cirrhosis. Renal failure is the only factor associated with increased mortality.

A-272
BACTEREMIA WITH STREPTOCOCCUS PNEUMONIAE. A HOSPITAL-BASED COHORT STUDY

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Objectives: To characterize a hospital-based cohort study among patients with Streptococcus pneumoniae bacteremia (SPB), to investigate the 30-day mortality, and factors associated.

Material and method: Design: A prospective observational cohort study was conducted over 18 months in a general hospital near

Barcelona. Study population: Patients were included if blood culture was positive for S. pneumoniae. Participants were identified by investigators on Clinical Microbiological Registry. Measurements: Clinical, analytic and sociodemographic variables were extracted from medical histories. Comorbodity was assessed using Charlson comorbodity Index. The focal diagnosis of the SPB was identified by a clinical judgment. We defined sepsis, sever sepsis and septic shock.

Results: Between 1st January 2011 and 31st May 2012 we identified 60 episodes of SPB. Of these patients, 13 were children, and 8 had a immunodepression (4 active malignancy, 3 HIV, and 1 LES with immunosupression treatment). The other 39 patients were identified and enrolled following informed consent. The median age was 64.6 (29-96) and 61.5% were men. The 30-day mortality for the cohort was 7.7%. The focal diagnostic of the SPB was pneumonia in 37 (99%). Of the 39 patients, 21 (54%) did not have sepsis, 13 (33%) had sepsis, and 3 (7%) had sever sepsis, and 2 (5%) had septic shock. The hospital stay was 6.8 days (0-21). As a comorbilities, 20% had diabetes, 26.3% COPD, 33% cardiopathy and 33% had anemia. Of the 39 S pneumoniae, all were found to be penicillin-susceptible. At arrival to emergency department, the analytical results showed leukocytosis like 15,862 (1,290-28,140) and PCR 34.8 mg/dl (0.8-78). Another analytical parameters and the serotype prevalence were reported.

Conclusions: We characterized a hospital-based cohort of adult patients with an episode of SPB, with a majority community-acquired pneumonia. The 30-day mortality was 7.7%. None of the S. pneumoniae isolated was penicillin-resistant.

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MICROBIOLOGICAL DIAGNOSIS METHODS OF PNEUMONIA IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To evaluate the microbiological diagnostic method of pneumonia in patients who have been admitted into the Internal Medicine Department of Leon University Hospital, Virgen Blanca Building, with the diagnosis of pneumonia, in the period from November 2011 to February 2012.

Material and method: Retrospective descriptive study was carried out reviewing medical reports of all patients admitted from 2011 November to 2012 February with the diagnosis of pneumonia. The following variables were assessed: prevalence, age, sex, type of pneumonia, the number of cultures: sputum, blood, bronchoalveolars lavages (BAL), antigens in urine, serological test. Also, we had evaluated the number of isolated microorganisms with each method and the identification of the microorganisms. The results were expressed by percentages and average.

Results: Out of total of 1,388 admitted patients, in the studied period, 147 presented the diagnosis of pneumonia (10.6%). The age average: 78.87 years old. Gender: women 44.2%, male 55.78%. Average of acquisition: 64% community, 28.6% healthcare associated and 7.5% nosocomial. Diagnostic methods: total the sputum cultures: 42.8% isolates 28.5%. The most common organisms: Pseudomonas spp 33.33%. Total the blood cultures: 53.06%. There were positive 18%. The most frequent identified organism: 50% coagulose negative staphylococcus. Total the urinary antigen in urine for the pneumococcal and the legionella 72.78%. There was positive 12.15%. All positive were of the pneumococcus. Total serologies tests: 12.24% There were positive 16.66%: Each of them: 33.33% (C. pneumoniae, M. pneumoniae and C. burnetti). Total samples from BAL 4.76%. There were positive 57.14%. Each of microorganisms identified were 14.28% (Aspergillus spp, P. jirovecci, 14.28% MARSA and E. coli). The etiologic diagnosis was achieved in 19% of the total cases. The most common organism is pneumococcal (46.42%), Pseudomonas spp (21.42%), 7.14% for Aspergillus, Haemophilus and Klebsiella and 3.57% for Pneumocystis, Coxiella and Chlamidya.

Discussion: The treatment of pneumonia is most effective when it is directed to the pathogen which has produced the pneumonia. There is not a wide consensus on the feasibility of achieving this goal due to differences in the value of diagnostic tests. In hospitalized patients this situation achieves more valuable. The problem is that the diagnostic test have a low effectiveness, so in the published studies about of the blood cultures the effectiveness was among 7-16%, in the sputum cultures was a among 10-86%, for pneumococcal antigens in urine was among 50-80% of sensitivity and 95% of specificity. Determining serologists tests and cultures of bronchoalveolar lavage should only been made in the serious and specific situations. Our findings are consistent with the published data. Few isolates in our culture samples: 11.1% sputum, 18% blood cultures, 12.15% urine antigen positive for pneumococcal, 57.14% BAL and 12.28% for serology. However we stress that the methods that it allow us to get a more effectiveness etiologic diagnostic are the antigens in urine, serology test and BAL and BAS culture. These actuations are the most recommended situations to get more wide etiologic diagnostic.

Conclusions: The diagnostic method available in our environment for etiologic diagnosis of pneumonia in hospitalized patients remains low. The determination of pneumococcal urinary antigen, serology tests and BAL culture are the methods which are brought us greater benefits.

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BACTEREMIA S BOVIS IN THE HEALTH AREA OF LEÓN IN 8 YEARS (2004-2011) WHAT ABOUT AFTER DIAGNOSIS AND TREATMENT?

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Objectives: The Streptococcus bovis is a gram positive bacteria, Lancefield group D, has a large phenotypic and genotypic variation and this is the major cause of bacteremia and endocarditis. It is usually associated with neoplasms of the gastrointestinal tract and cirrhosis. In this research we describe the clinical, microbiology and treatment of patients with bacteremia due to S. bovis.

Material and method: We collected samples of patients in which Streptoccocus bovis was isolated by the CAULE Department of Microbiology during the years 2004-2011. Clinical Histories were reviewed.

Results: We reviewed the cases of bacteremia caused by S. bovis in the health area of León between 2004 and 2011. There were a total of 26 cases, with an average of 76 years old (range 0-95) and 58% of them were men. Most of the cases (18) were located between 2006 and 2008. About 61% of Streptococcus bovis infections admitted to Internal Medicine department and 12% in Oncology department. Fever was present in 73% of patients. Most of them were hospitalized for less than 15 days. 42% of patients were diagnosed with cancer and there were 8 new cases (5 colon, 1 hepatic, 1 pelvic and 1 breast). In addition 4 of them had chronic liver disease (alcoholic). 23% of the cases showed more than one microorganism. Typing was achieved for 50% of S. bovis: 31% (8 cases) are biotype I and 20% (5 cases) are biotype II. There were 38% of infectious endocarditis. Overall mortality was 20% (5 cases). 85% were treated with beta-lactams and 54% of those patients the

duration of the treatment was less than 14 days and 32% less than 9 days. There wasn't significant side effects. 61% of the patients were followed regularly in outpatient and 3 was associated neoplasia (two colon and one uterine) with a delay of two years.

Discussion: Streptococcus bovis infection produces a large number of bacteremia due to endocarditis. Subacute endocarditis is usually aggressive with significant mortality, classically associated with colon cancer and other cancers. In our series we found 60% of the bacteremia's cases. There were 8 new cases of malignant cancers, mostly colon cancer. It is involved in the pathogenesis of inflammatory mechanisms mediated by cytokines, alteration of tissues and induction of uncontrolled cellular proliferation. We reviewed the outpatient of the 61% of Streptococcus bovis infections by monitoring. An average of one or two reviews in less than a year. The new cancers detected were diagnosed by the appearance of new symptoms. This new cases of cancer were not followed. In our series, most of the cancers occur simultaneously with Streptococcus bovis infection. Two colon cancer and a gynecological were detected in 16 patients who were followed in the outpatient internal medicine, which is the main service that attends these processes. It is not defined in the medical literature worldwide for how long is necessary follow the Streptococcus bovis infections. But it seems obvious that we must control the outcome of patients with Streptococcus bovis infection with the likelihood of developing new tumors.

Conclusions: We emphasize the importance of monitored correctly of patients with Streptococcus bovis infections that can cause serious pathology.

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EARLY DETECTION OF MRSA CARRIERS IN HIGH RISK PEOPLE

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Objectives: Description of the method for early detection of patients at high risk of being carriers of MRSA, as well as to descript the epidemiological characteristics of these patients in Tudela´s hospital (Navarra-Spain).

Material and method: In our hospital, the study of carrier MRSA is done to patients from nursing homes and other institutions which are considered of high risk. The service of Preventive Medicine reviews daily the patients in the hospital through medical records in order to detect early patients subject to screen and then they are communicated to the nurses of the different services of the hospital.

Results: During 2011 in our hospital 186 patients were hospitalized who required study of MRSA carrier because they have high risk of been carrier. They weren't collected to 27 (14.5%), 94 (50.5%) were negative and 65 positive (34.9%). By sex no differences (p = 0.814): 57 men (positive 24) and 102 women (41 positive). 165 patients (88.7%) were hospitalized in internal Medicine representing 6% of the admissions from this service in the year, the rest were hospitalized in general Surgery (8) and Traumatology (10). The average number of days to collect the nasal smear was 2.3 days (2.7 in general surgery, 1.9 in internal medicine and 1.1 in traumatology). Decolonization treatment was made to prevent transmission of the bacterium in 55 positive patients (84.6%). The mean age was 82.6 to positive and 85.2 to negative (p = 0.035). The average stay was 10.4 days in positive and 10.6 in negative (p = 0.470). 13 patients were moved to hospital at home (8 with positive nasal swabs) with an average stay of 12.9. There weren't aggregation of carriers according to the place of their nursing homes.

Conclusions: Early detection of patients colonized allows the timely implementation of interventions to prevent transmission and infection with this microorganism.

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ENDOCARDITIS S. BOVIS IN THE HEALTH AREA OF LEÓN IN 8 YEARS (2004-2011)

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Objectives: Infective endocarditis is a disease characterized by involvement of the valvular endocardium but the infection usually can be located in a septal defect or any part of the mural endocardium. Streptococcus bovis endocarditis accounts for 10% of cases of bacterial endocarditis. To evaluate the clinical significance of S. bovis isolates from patients with endocarditis.

Material and method: During a 8 years period (2004-2011) all S. bovis isolated from blood cultures (BacT/AlertTM, bioMèrieux, France) were identified by using API Strep TM (bioMèrieux, France). Susceptibility to antimicrobial agents, by disc-plate method, was cathegorized using breakpoint established by CLSI criteria. The clinical records from all of the patients were retrospectively reviewed. We used SPSS v20.

Results: We found 26 bacteremia, of which 10 cases were infectious endocarditis (38.4%). The mean age of patients was 76.3 years (58-86) with 60% males. 90% of patients admitted for infectious endocarditis due to S. bovis did inthe Internal Medicine department. The average hospital stay for these patients was 35.5 days. Risk factors: smokers (20%), a drinker patients (10%) and diabetic (40%). Only in one case there was a history of colon cancer (10%), whereas 5 had a history of other neoplasies (1 thyroid, 1 cervix, 1 hepatocellular carcinoma and 2 hematologic). Fever was present in 70%. Only one case had coinfection with another organism (S. intermedius/milleri). S. bovis biotype I was identified in 70% of cases. Colonoscopy was performed at 80% of patients, there being in all cases colonic disease (4 adenomas and 4 adenocarcinomas). In two cases, 27 months and one year after admission and in the remaining 6 cases during hospitalization for bacterial endocarditis. Was affected equally on both valves, mitral (5) and aortic (7), in 2 cases together. Mortality was 30% for endocarditis compared to 12.5% of bacteremia (p 0.219). The presence of endocarditis was a clear risk to develop complications (p 0.001), two cases required valve replacement and deferred a pacemaker. About 80% were treated with beta-lactams. The mean treatment duration was 23.5 days. In neither case were no adverse reactions to treatment.

Discussion: S. bovis is a normal inhabitant of the gastrointestinal tract and production-related bacteremia, endocarditis, urinary tract infections and meningitis. Usually affects patients older than 60 years, whose most common complication is heart failure due to involvement of the aortic valve, with a mortality between 25 and 50%. These data are consistent with our cases in which the average age of our patients was 76.3 years with a mortality of 30%. In our series affected both aortic and mitral valve. The diagnosis of S. bovis endocarditis is performed in 95% of cases by blood cultures, dropping the 65% effectiveness when a patient has a history of antibiotic therapy, due to its high sensitivity to penicillin (MIC 0.25 to 2 ug/ml). In our patients blood cultures were positive in 100% of cases. Because of the association between colonic disease and bacteremia due to S. bovis, some authors have stressed the importance of endoscopy, and when this standard it should be included in monitoring patients by this method at least 2 to 4 years, as they have been detected in neoplastic colonic lesions is time after infection.

Conclusions: In our series, the association between S. bovis biotype I and colonic pathology was observed in 100% of patients with infectious endocarditis those who underwent colonoscopy (80%). Therefore, it is important to study the gastrointestinal tract to all patients with endocarditis by S. bovis and followed up for at least 2-4 years.

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BACTEREMIA IN VERY OLD PATIENTS: EPIDEMIOLOGICAL FEATURES

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Objectives: To assess the characteristics of bacteremia in patients aged 85 years or older, diagnosed at the University Hospital Severo Ochoa between February 2011 and April 2012.

Material and method: In our center all episodes of bacteremia are stored in a database since January 2011. For the present study, we selected all patients aged ≥ 85 with bacteremia detected between February 2011 and April 2012. Data on demographic variables, comorbidity, source of infection, source of bacteremia, pathogen, antibiotic therapy and in-hospital mortality were extracted. Statistical analysis was performed using SPSS version 11.

Results: Total population: 61 patients. We analyzed 61 episodes of bacteremia; 54.1% (33 patients) were females. In 75.4% bacteremia was community-acquired, and only 24.6% were considered nosocomial (54.3% of the nosocomial bacteremias were acquired in nursing homes). The most frequent comorbidities were hypertension (39.3%), chronic obstructive pulmonary disease (COPD) (18%) and diabetes mellitus (DM) (14.8%). The most common isolated micro-organism was E. coli (49.2%), followed by Gram-positive cocci (staphylococci, 11.5%; streptococci 9.8%; and *Enterococcus*, 4.9%). Klebsiella ranked second among Gram-negatives (8.2%). The source of bacteremia was considered the urinary tract in 34.3%, the abdomen in 29.6% (biliary tract in 19.7% and non-biliary in 9.9%), respiratory tract in 21.3% and catheter related in 3.3%. After empirical and/or pathogen-directed antibiotic therapy, with or without drainage of the source of bacteremia and catheter withdrawal, clearing of the bacteremia was achieved in 83.6%, with an in-hospital mortality rate of 13.2% (half of the deaths, 6.6% of the total sample, occurred within 7 seven days of the diagnosis and were considered directly related to the bacteremia).

Discussion: Due to the scarcity of epidemiological data, knowing the characteristics and behavior of bacteremia in these very old patients seems interesting; according to our data, mortality seems lower than previously estimated. We observed that most bacteremias were community-acquired and that the most common bacterium was *E. coli*. As in other age groups, the urinary tract was the most common source. In our study, other common sources were the abdomen and respiratory tract, but catheter related bacteremia was less frequent than in previous publications. These old patients, in which hypertension, COPD and DM are the most frequent comorbidities, tend to show a favorable response, with a cure rate of 83.6% and a low mortality attributed to bacteremia. These results appear encouraging as compared with those of previous studies. A higher proportion of a UTI origin, which tends to an improved response, a better health status of present old patients, or a faster and broader antibiotic coverage, among other factors, could explain our favorable results.

Conclusions: 1. In patients aged 85 years or older, the most common pathogen was E. coli and the urinary tract the leading source of bacteremia. 2. Frequency of nosocomial bacteremia was low. 3. Cure rate was 83.6%.

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DESCRIPTIVE STUDY OF MRSA

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Objectives: An objective of the World Alliance for Patient Safety of WHO is to decrease the infections by multiresistance microorganisms. It is especially important methicillin resistant Staphylococcus aureus (MRSA) for their characteristics (dissemination easy, resistance to drug, high mortality and the increase in hospital cost). Also, nowadays, in Spanish hospitals the prevalence of MRSA is increasing. We have an epidemiological study of MRSA cases who were detected during 2011 in Tudela's hospital (Navarra-Spain).

Material and method: Every day, the service of Preventive Medicine reviews all patients admitted in the hospital through computerized medical record. Also, clinical and microbiological doctors communicate if there are any MRSA cases, so the active search and collaboration between services allow the early detection of MRSA cases and so to avoid their transmission to other patients and health personal.

Results: During 2011 25 MRSA cases (10 men and 15 women), 7 are old cases, have been detected. 16 patients have been hospitalized in internal medicine service, 2 in general surgery, 3 in hemodialysis and 1 in emergency room. Carrier of MRSA was studied in all patients; it wasn't completed in 15 because they left the hospital before finishing the study. In any patient were the three smears positive. in 15 cases was repeated cultivation after the treatment. The mean age was 82.9 years, without significant differences by gender. 5 cases shared room for more than 48 hours, performing then the appropriate preventive measures. The most frequent localization of the microorganism was ulcers in 11 cases followed by sputum in 8 cases. In hemodialysis, all patients were placed with contact and drops isolation measures until they have the results of the first nasal swab.

Conclusions: Diagnosis and early preventive measures in MRSA cases prevents the spread of this microorganism and hospital outbreaks. Collaboration between Clinical Services and Preventive Service is necessary in order to prevent outbreaks too.

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BACTERAEMIA DUE TO ESCHERICHIA COLI PRODUCING EXTENDED-SPECTRUM BETA-LACTAMASES (ESBL): HAVE THEY INCREASED IN OUR HOSPITAL?

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Objectives: To analyze the epidemiological characteristics of patients admitted to Internal Medicine during 2008 and 2011, with Escherichia coli bacteraemia. Analysis of the antibiotics used pre and post-antibiogram as well as the prevalence of strains of extended-spectrum betalactamase-producing Escherichia coli (ESBL) and antibiotic resistance in the last four years.

Material and method: A retrospective descriptive study of medical records of all patients admitted to Internal Medicine in the years 2008, 2009, 2010 and 2011 with E. coli positive blood cultures. Analysis of antibiograms, antibiotic resistance in the last four years

and the clinical-epidemiological characteristics. Data were analyzed using SPSS software version 15.0.

Results: We included 96 episodes of bacteraemia due to E. coli admitted to Internal Medicine from 299 cases that were reported at the hospital during the four years. 56% were male and 43.8% women. The mean age was 74 years (range 18-100). 72.9% of the blood cultures were extracted at the emergency department and 27.1% in the wards. Among bacteraemia, 63.5% were community-acquired, 24% health- care related and 12.5% hospital-acquired. The origin of the blood stream infection were: urologic (56.3%), biliary (26%), intestinal (6.3%), respiratory (8.3%), catheter (1%), soft tissue infection (2%). Among the risk factors associated with bacteraemia there were: patients from nursing-homes (4%), urinary catheterization performed in emergencies or on the ward (12.5%), endoscopic or urological manipulation (7.3%), prior antibiotic therapy (11.5%), hospitalization or recent chemotherapy in 15.6% and 5.2% respectively, cutaneous ulcers (2.1%). Patient comorbidities: diabetes (40.6%), neoplasm (27.1%), immunosuppression (13.5%), hypertension (38.5%), dementia (17.7%), COPD (9.4%), renal insufficiency (22.9%). The de-escalation after antibiogram result was 40.6%. Death in 16.7% of patients and related to bacteremia in 13.5%.. Antibiotics used after outcomes of the antibiogram were: amoxycilin-clavulanic acid (26%), piperacillin-tazobactam (20.8%), 3rd generation cephalosporins (27%), quinolones (24%), imipenem (8.3%) and aminoglycosides (9, 4%). Comparing antibiotic resistance in two time periods (2008-2009 and 2010-2011), we observed that ampicillin has a resistance of 46.9% and 44.7% respectively, amoxyclavulanic acid goes from 30.6% to 8, 5% ($p < 0.05$). Cephalosporins of 3rd generation go from 14.3% to 8.5%, piperacillin-tazobactan from 8.2% to 10.6%. Quinolones from 24.5% to 29.8%. Aminoglycosides from 6.1% to 6.4%. There was no resistance to imipenem, vancomycin and tigecycline. As regards beta-lactamase producing E. coli, 12.2% appeared in the 1st period (2008-09) while in the 2nd period (2010-11) it decreased to 8.5%.

Discussion: Gram-negative bacteraemia continue to be one of the most important causes of morbidity and mortality in patients admitted in the ward, namely Escherichia coli is the most frequently microorganism found in blood cultures, both in community-acquired bacteremia as those associated with health care. The appearance of Extended-Spectrum Beta-Lactamase (ESBL) producing E. coli strains has aggravated the situation, being important to recognize in advance patients susceptible to these strains (nursing-homes, prior antibiotic therapy, permanent catheterization, recent hospitalization).

Conclusions: Our study reveals a slight decrease of Extended-Spectrum Beta-Lactamase (ESBL) producing E. coli strains in the last two years. Currently there are no carbapenemase-producing strains in our hospital. Regarding antibiotic resistance highlight the decreasing resistance to amoxycilin-clavulanic (from 30.6% to 8.5%, $p < 0.05$).

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MALARIA PRESENTING TO A DISTRICT GENERAL HOSPITAL; ARE THERE LESSONS TO BE LEARNT

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Objectives: Malaria is the most deadly vector borne disease in the world with 300-500 million cases worldwide annually. Plasmodium falciparum causes the most severe morbidity and mortality accounting for 95% of malaria diagnosis worldwide. In the UK, it is the most common imported tropical disease with an average of 1500 notifications yearly with 7 deaths. A 5 year (2004-2009) retrospective study analysing the epidemiology, clinical presentation and management of all patients with malaria presenting to a UK District General Hospital is conducted with a view to highlighting areas where improvements can be made in line with current UK malaria treatment guidelines published by the British Infection Society in 2007.

Material and method: The clinical files of all patients admitted to a District General Hospital with malaria over a 5 year period (2004-2009) were analysed. Demographic data, country of origin of patients, travel history, whether or not malaria prophylaxis was taken, symptoms on presentation including the recognition of the presence of severe symptoms of malaria, level of parasitemia, door to diagnosis time, door to treatment time and antimalarial treatment given were collated.

Results: 38 patients were identified with a male preponderance 25 (66%). Most patients were in the age range 40-49 years with the majority of patients 22(58%) originating from Sub-Saharan Africa and Asia. The majority of patients 27(71%) also had a recent history of travel to Sub-Saharan Africa. Most patients 26(68%) did not take any malarial prophylaxis prior to travelling. The commonest type of malaria was Plasmodium falciparum 30 (79%) followed by Plasmodium vivax 7 (18%) and plasmodium ovale 1 (3%). 18 (47%) patients presented within 7 days of symptoms with a further 10 (26%) patients presenting within 7-14 days. 2 patients presented a year after travel. The commonest symptom on presentation was fever followed by headache, vomiting, malaise, abdominal pain, arthralgia and altered level of consciousness. 8(21%) patients had severe malaria with having a parasitemic load of 2% or more. All of these patients had symptoms of severe malaria presenting with altered level of consciousness, renal impairment, respiratory distress and metabolic acidosis. The majority of patients had a door to diagnosis of time of less than 3 hours 30 (79%). Only half of patients had their treatment within 6 hours of presentation. The commonest treatment given was quinine 28 (74%). Blood glucose was checked initially in 23 (61%) patients but only monitored regularly in 8 (21%). The median length of stay was 3.5 days with a range of 0-7 days. 5 (12%) patients were treated in a critical care unit whilst 7 (18%) required tertiary referral to a tropical disease unit.

Discussion: Falciparum malaria is the commonest form of malaria presenting to a UK District General Hospital in London. The British Infection Society guidelines emphasizes early diagnosis, treatment and recognition of severe or complicated malaria. Our study shows that most patients come from and travel to Sub-Saharan Africa and the majority don't take antimalarial prophylaxis putting them at increased risk of malaria. There is a need shorten the door to diagnosis and door to treatment time and emphasize regular capillary glucose monitoring in patients with malaria.

Conclusions: Our findings suggest that it is necessary to continue to provide health education to the general public about the importance of taking antimalarial prophylaxis when travelling to a malarial endemic area as well as educating health care professionals regarding the latest guidelines in regards to diagnosis, management and chemoprophylaxis of falciparum malaria.

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INFLUENCE OF ILB28 ON THE ACTIVITY OF VIRAL HEPATITIS C AND HCV-HIV COINFECTION

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Objectives: To study the influence of genetic marker ILB28 with a better response to treatment (measured as RVR, EVR and SVR) and its relationship to the degree of fibrosis.

Material and method: We studied 51 outpatients with chronic hepatitis C from the Infectious Diseases Unit. Statistical study: the association of qualitative variables was analyzed by the Chi-square test of Pearson. If the number of cells with expected values under 5 are greater than 20%, has been used the Fisher's exact test or Likelihood Ratio test for more than two categories. Fibroscan and PCR values was compared with Mann-Whitney and Kruskal-Wallis test for independent samples when the number the group to compare was two or greater. Data were analyzed using SPSS version 19.0 for Windows, p-values < 0.05 are considered statistically significant.

Results: There were 37 (72.5%) men, 48 (94.1%) were from Spain, and 20 (39.2%) had HIV coinfection. 18 (35.3%) had hipertrigliceridemia and 9 (17.6%) insulinorresistance. 26 (51%) made hepatitis C treatment. The source of infection was in 34 (66.7%) the intravenous use or inhaled drugs, in 14 (27.5%) was unknown and the remaining sexual. 20 (39.2%) had HIV coinfection. 26 (51%) completed treatment of hepatitis. The 61.5% and 84.6% of patients with CC genotype had RVR and EVR respectively, compared to 30% of patients with CT or TT genotype. We obtained a higher SVR in patients with CC genotype (58.3%) compared to CT-TT genotypes (44.4%). 80% of null responders had a CT-TT genotype. The grade of fibrosis measured by Fibroscan was F3-F4 in 50% of patients with CC ILB28, compared to 27% of patients with CT and TT ILB28.

Discussion: Hepatitis C virus infection (HCV) is a serious health problem in the Western world, with chronic infection rates ranging from 1.5 to 3%. Treatment with pegylated interferon (peg-IFN) and ribavirin (RIB), manages to cure about 50% of cases of patients infected with genotype 1, which is the most common (75% of those infected). Several genome-wide association studies have demonstrated that single nucleotide polymorphisms located near the interleukin 28B gene strongly predict an SVR to peg-INF/RBV therapy, and also in HCV/HIV coinfected patients, as we can seen in our results. Other studies have observed less progression of liver fibrosis in patients with genotype CC, but we obtained no statistically significant results regarding the degree of fibrosis and genotype in our patients, and that´s probably because the small sample of patients.

Conclusions: Treatment patients with CC genotipe get more RVR, EVR and SVR than CT and TT genotype patients. However the number of null responders is higher in the CT and TT than in CC genotype patients. In our study, CC genotypes patients have a greater degree of fibrosis than CT and TT patients. We found no statistically significant differences between the degree of fibrosis (APRI, FIB-4 or Fibroscan), neither between HCV RNA and the different ILB28 genotypes. But CC genotype patients had more sever fibrosis degree than CT-TT genotype patients.

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CONTROL OF URINARY CATHETERIZATION IN INTERNAL MEDICINE

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Objectives: To evaluate the urinary catheterization in patients in an internal medicine unit, the indications for catheterization and the catheter-associated urinary tract infection (CAUTI).

Material and method: The authors studied prospectively consecutive patients with urinary catheter in an internal medicine unit. On register epidemiological data and comorbility, the place, indication, days of catheterization and urocultive before and after catheterization.

Results: A total of 72 patients were enrolled in this study. 50% of all patients were men, and the mean age was 79.21 years old (16-102) 99% of the patients had comorbidities. The patients presented antecedents of HTA in 68%, diabetes 31%, EPOC 25%, heart failure 31%, cognitive impairment 37%, renal failure 19% and 32% history of urinary tract infections. 8% of de patients had permanent catheterization The indication for catheterization was volume monitoring in 61% and obstruction in 15%. The catheterization was performed in emergency department in 71% of patients. The urine culture after catheterization was positive in 21 of 65 patients (32%) with a mean 4.7 days of catheterization. 8% of the patients had complications derived from urinary tract infection.

Discussion: Urinary tract infection is the most common nosocomial infection, and prolonged catheterization is the primary risk factor for CAUTI. From 15% to 25% of patients in general hospitals have a urethral catheter inserted at some time during their stay, and the rate of catheter use appears to be increasing. The indwelling urethral catheter introduces an inoculum of bacteria into the bladder at the time of insertion, facilitates ascension along the catheter-urethral mucosa interface, and allows for intraluminal spread of pathogens to the bladder. In hospitalized patients, catheter- associated bacteriuria accounts for many episodes of nosocomial bacteremia. Indwelling catheters should be placed only when they are indicated, but recommendations for urinary catheterization in newly hospitalized patients are inconsistent and unclear. Two thirds of our patients had urinary catheterization to volume monitoring, indication questionable if it can be controlled by other means. In hospitalized patients the benefits of catheterization should be balanced by potential complications.

Conclusions: The urinary catheterization is associated with a high percentage of catheter- associated urinary tract infection. The use of urinary catheterization must be restricted to patients who have clear indications and removing the catheter as soon it is no need.

A-284
EVALUATION OF THE RISK OF MORTALITY DUE TO TIGECYCLINE IN A REGIONAL HOSPITAL

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Objectives: In view of the alert issued by the EMA ("European Medicines Agency"), FDA ("Food Drug Administration") and AEMPS (Sp. For "Spanish Agency of Drugs and Health Products") focusing on the bigger mortality in patients going through a treatment with tigecycline, a study is developed in order to assess the mortality rate in patients undergoing treatment with tigecycline.

Material and method: Descriptive study of patients to whom tigecycline was prescribed during their stay in El Bierzo Regional Hospital, in the period covered from January the 1st, 2009 and April the 30th, 2011. The studied aspects were: age, sex, culture and isolated microorganisms, main diagnosis, treatment's length, empirical or not empirical indication, previous and concomitant antibiotics, allergy to penicillin and exitus. Patients are selected by the control program of the use of restricted use antibiotics made by the hospital infection, prophylaxis and antibiotic policy committee. The statistical analysis was made with the SPSS program.

Results: 24 patients, of which 65% were women, were included. 8 patients passed away (33%). The average length of the treatment was 8 days. Microorganisms which are resistant or with medium feeling to tigecycline isolated in later cultures during or after the treatment with tigecycline were: Candida spp (5 patientts), M. morganii (2 patientts), P. mirabalis (2 patients), S. maltophilia resistant to tigecycline (1 patient), K. pneumoniae with intermediate feeling to tigecycline (1 patient). The diagnosis of the

patients that passed away was: intra-abdominal infection (12.5%), sepsis (12.5%), pneumonia (25%), urinal infection (25%), soft-tissue infection (25%). In all the patients that passed away the treatment was empiric and in three cases they were allergic to penicillin.

Discussion: The mortality rate was high, 33% compared to a 2.3% of the mortality issued by the EMA. This rate may be due to the fact that none of the patients that passed away received the correct antibiotic treatment for germs which are intrinsically resistant to tigecycline (3 out of 8 patients that passed away received treatment in monotherapy) even when they were serious infections or suspected of multiresistant germs. In five out of the eight patients that passed away tigecycline was used out of the authorized indications (pneumonia, sepsis and urinal infection), hence the importance of using the aforementioned antibiotic in the authorized indications.

Conclusions: The mortality rate is higher than the one issued by the EMA (probably due to an incorrect antibiotic supply). Tigecycline was used out of the authorized indications in more than a 50% of the patients that passed away. Since it's a descriptive study, it is difficult to establish a causality relation, and therefore, to claim less efficacy and security of the treatment in patients treated with tigecycline.

A-285
EXTRAPULMONARY TUBERCULOSIS PRESENTING AS LYMPHADENOPATHIES AT INTERNAL MEDICINE OFFICE: NEW DIAGNOSTIC APPROACH

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Objectives: Engrossed lymph nodes are the commonest form of extrapulmonary tuberculosis. This form of presentation is increasing in the last years, and requires a complex differential diagnosis. Although the bacterial culture is still the microbiological gold standard for detection of tubercle bacilli, the polymerase chain reaction (PCR) is a quick method, which requires small volumes of samples, and could help the physician to take a sooner and correct therapeutic decision. The purpose of our series is to report the clinical, microbiological and laboratory data, of consecutive patients diagnosed of lymph node tuberculosis.

Material and method: We performed an observational, descriptive and retrospective study in the internal medicine and infectious disease departments of the university hospital Ramon y Cajal, reviewing medical records of patients from 2007 to 2012. Eligible patients should have some of the next microbiological criteria: positivity Zielh-Neelsen or auramine-rhodamine stainings, grewing in solid or liquid cultures media and/or a positive amplification of genome (ARNr) of Mycobacterium tuberculosis (PCR). The patients should have peripheral lymphadenopathy of any location and a compatible cytology (necrotizing granulomas) by fine-needle aspiration (FNA). We excluded any other mycobacterium specimen's culture and those < 18 years old. HIV (+) cases were considered just for descriptive purpose. Contingency tables were conducted to assess the sensitive (Se), specificity (Sp), negative predictive value (NPV) and positive predictive value (PPV) of as diagnostic tests.

Results: We found 103 cases. The mean age was 52.89 years, and symptoms before diagnosis were reported with an average of 21.9 weeks. 44 cases (42.7%) were males and 71 cases (68.9%) came from local, non-immigrant population. The cervical area was the most frequent location of the peripheral lymph node (78.6%). 17 were HIV (+), whoe were finally excluded for diagnosis test analyses (16.5%). The Zielh-Neelsen staining was positive in 32 cases (37.2%) and auramine-rhodamine in 47 cases (54.7%); positivity for both staining methods reached 47 cases (54.7%). Cultures were positives in solid medium in 44 cases (51.2%) and liquid medium 57 cases (66.3%) - any positivity reached 57 cases (66.3%). Amplification of genome of M. tuberculosis (PCR) was obtained in 91 cases (88.3%). Tissue pathological analysis obtained by FNA described granulomas in 69 cases (71.9%) and necrosis in 55 cases (57.3%). The Se, Sp, PPV and NPV of the PCR against Zielh-Neelsen and auramine-rhodamine stainings were 0.95, 0.23, 0.6 and 0.81, respectively. When PCR were compared with any positive culture, Se, Sp, PPV and NPV results were 0.89, 0.17, 0.68 and 0.45, respectively. Then, it was compared the report of granulomas in FNA, obtaining the next results: 0.85 (Se), 0.11 (Sp), 0.76 (PPV) and 0.18 (NPV). Finally, the same approach was done for necrosis in cytology performance by FNA: 0.9 (Se), 0.2(Sp), 0.58 (PPV) and 0.63 (NPV).

Discussion: PCR have got a Se (over 80%) compared with classic tools of M. tuberculosis infection (Ziehl-Neelsen, cultures, FNA) and could be an excellent complementary technique of diagnosis. Our series have got some limitations: it is a retrospective; a low number of negative samples for any of the laboratories could influence the specificity results (so it could expected a higher values). So our results shows that positive PCR, together with FNA and/or alcohol-resistant bacilli stainings in the samples of the lymphatic nodes, could be a valuable tool to get a quick diagnose of tuberculous lymphadenitis and start aimed treatment in these patients.

Conclusions: In patients suspected of tuberculous lymphadenitis, positive PCR could be a sensitive method to start therapy against M. tuberculosis with safety.

A-286
ACUTE PYELONEPHRITIS (APN) IN ADULTS. REVIEW OF 128 CASES

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Objectives: Acute pyelonephritis (APN) is a relatively frequent disease among adults, but diagnostic approach, evolution, indication to hospitalization, and empiric antibiotic treatment are still open problems. We studied the risk factors, etiology and profile of antimicrobial resistance, the chest radiograph and initial antibiotic treatment and clinical outcome.

Material and method: We have made a retrospective analysis of adults patients hospitalized for APN, from the opening of our hospital in February 2008 to December 2011, with special attention to age, gender, predisposing factors, microbiological results (urine and blood cultures), the findings of the imaging (renal sonography, CT), antibiotic treatment (empirical, directed) and evolution.

Results: We identified 128 patients: 101 females (78.9%), with a mean age of 41.9 years (range 16-89 years), and 27 males (21.1%), with a mean age of 58.48 years (range 31-82) Predisposing risk factors for APN were detected in 73 cases (57.03%), highlighting the previous APN in 22 cases (30.1%), functional abnormalities of the excretory tract in 18 cases (14.06%), the presence of a double J stent in 10 cases (13.69%), predisposing conditions including diabetes, chronic renal failure, pregnancy, vesical catheter and represent a 31.5% (23 cases). In 55 cases there were no significant alterations (42.9%). Urine culture was positive in 60 patients (46.8%: Escherichia coli in 50 cases [83.3%] with 4 extended-spectrum beta-lactamase (ESBL) producing E. coli, Klelbsiella spp. in 5 cases [8.3%], Proteus spp. in 2 cases [3.3%], Pseudomonas spp. in 1 case [1.67%] and Enterobacter spp. in 1 case [1.67%]). Blood culture was requested from 77 patients and was positive in 18 cases. (23.37%: E. coli in 15 cases [83.3%], Klebsiella spp. in 2 cases [11.1%], Clostridium spp. in 1 case (5.55%). In 15 cases there was overlap

between the results of urine culture and blood culture, 14 of which correspond to E. coli. We found 43 negative blood cultures (55.8%) and 45 negative urine cultures (37.1%) Imaging tests were performed (renal ultrasound), in 105 cases (82%): in 50 cases (47.6%) had no significant radiological abnormalities; in 27 cases (25.7%) showed focal pyelonephritis; in 10 cases (10.5%) was visualized kidney stones; in 8 cases (7.6%) pelvicalyceal ectasia, and in 4 cases (3.8%) we found renal abscess. All patients started empirical antibiotic treatment intravenously with one if three regimens: beta-lactam monotherapy (56.2%) or in combination with an aminoglycoside (10.1%), or a fluoroquinolone (33.7%). It was only necessary to change the antibiotic regimen, after receiving the antimicrobial susceptibility, in 10 cases (7.8%): 4 patients with ESBL producing E. coli; fluroroquinolone resistant E. coli in 6 patients; ciprofloxacin resistant E. coli in 3 cases; ciprofloxacin resistant Klebsiella and intolerance to beta-lactams previously unknown in 1 case The outcome was favorable in all patients (100% survival). As complications, noted that nephrectomy was required in 1 patient with renal abscess and sepsis.

Conclusions: We can conclude that the demographics and the etiology of the APN were similiar to those reported in the literature. Emphasize the presence of double J, APN previous recurrent urinary tract infections and kidney stones as factors favoring APN in 36.7% of cases. Renal ultrasonography allowed detecting significant complications, such as focal pyelonephritis and renal abscess in a total of 31 cases. The low proportion of resistant organisms (ESBL producing E. coli and other gram-negative bacilli resistant to quinolone antibiotics), only forced to change the antimicrobial treatment in 7.8% of cases: in our health area, the administration of a beta-lactam antibiotic alone or in combination with an aminoglycoside remains the preferred empirical antibiotic treatment of APN in adults.

A-287
IMMUNE STATUS IN HIV CASES IN SANTA BÁRBARA SORIA HOSPITAL

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Objectives: Description of HIV cases assessed at Internal Medicine consultation including the type of infection, immune status, viral load and presence of co-infections during the period 2011-2012.

Material and method: A descriptive, retrospective and observational study of 33 cases of HIV infection in Santa Bárbara Soria Hospital 2011-2012. We collected the following data: age, place of origin, type of transmission, sexual practices, viral load, resistance, co-infection with other agents and their immune status.

Results: Of the 33 cases included the average age was 45 years, including 24 men and 9 women. Most of these cases are local and in the foreigners Latin Americans are the most predominant, in this group the majority are female. The most common means of infection is drug abuse (13 cases) followed by the heterosexual sexual transmission (8 cases), the route of infection of remaining cases is unknown and the details on their sexual habits are not provided. 14 cases are at stage AIDS at the time of diagnosis. In 20 patients the viral load is undetectable, 6 of them have less than 1,000 copies,2 of them between 1,000 and 10,000 copies and 5 of them have more than 10,000 copies. CD4 are > 500 in 18 patients, between 350-500 in 6 patients and below 350 in 9 cases. The average CD4 was 594 with a median of 531. In terms of resistances 28 of the patients do not have any resistance. HCV co-infection was observed in 16 cases and HBV co infection in 5 of them. The lues serology is positive in 4 cases.

Discussion: In our results the main route of infection is drug dependence although in 27% side route is unknown. Heterosexual transmission in female foreign population is more representative with a decrease in the homosexual transmission. The last cases diagnosed are 4 men and 3 women, 6 of them with heterosexual transmission. 78.78% of the patients have less than 1,000 copies at the time of diagnosis and 15.15% more than 10,000 copies. The patients with the highest viral load were those of African origin with a difficult treatment adherence. In general, immune status has been good with 72.72% of the patients with CD4 counts above 350 cells/L, and most of them with values higher than 500 cells/L. In our sample, we haven't found a lot of resistances, only 15.15% were documented. The HBV and HCV co-infections were 63.63% and lues co infection was 12.12% partly because in the group of patients held in prison prevails HCV co-infection, being these patients third of the total sample.

Conclusions: Of patients evaluated in HIV clinic at Soria we can conclude that most of those diagnosed are local men whose route of transmission were the drugs abuse, while foreigners diagnosed most of them were women of Latin American origin whose route of infection was sexual. Most of our patients have immunological stability in part because nearly a third of them are held in prison leading to an improved monitoring and more exhaustive adherence. But in turn this means that we have a higher rate of co-infections are mainly due to ex-drug abuse patients produces a greater number of HBV and HCV even prior to AIDS diagnosis.

Table 1 (A-287)

CD4 cells/µ	Number of patients (%)
< 350	9 (27%)
350-500	6 (18%)
> 500	18 (54%)

Table 2 (A-287)

Viral Load	Number of patients (%)
Undetectable	20 (60.60%)
< 1,000	6 (18.18%)
1,000-10,000	2 (6.06%)
> 10,000	5 (15.15%)

A-288
RETROSPECTIVE ANALYSIS OF THE PATIENTS WITH HIV INFECTION ADMITTED IN A THIRD LEVEL HOSPITAL

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Objectives: To describe the features and to analyze the morbidity of the patients with HIV infection who needed to be admitted. To analyze the causes of admissions and mortality of patients with HIV infection in our hospital.

Material and method: It has been reviewed the clinical histories, of adults patients, aged more than 15 years old, with HIV infection admitted in our hospital, a third level hospital, in medical or surgical wards, during a period of five years, from 2007 to 2011. We excluded hospital admissions only for diagnosis tests. The statistic analysis was realized with the IBM SPSS statistic programme.

Results: We entered 392 episodes of admissions concerning to 203 patients. The distribution was irregular, in 2007 were admitted 62 patients, 31 in 2008, 18 in 2009, 62 in 2010 and 23 patients in

2011. 155 (76.4%) men, with a median age of 44.2 years. The average hospital stay was 13.4 days. The route of transmission was intravenous in 141 patients, 138 (68%) in previously parenteral drug users, and 3 cases only trough blood transfusion, followed by 47 (24.7%) of sexual transmission. 140 patients (69%) were co-infected by HCV, and 19 (9.4%) were co-infected by HBV. Most patients admitted were on HAART, 115, (56%); on the other hand 80 (39.4%) patients weren´t on HAART, normally not adherents patients. Almost half, 95 patients (46.8%) have a CD4 count > 200 cells/µl; and 124 (61.1%) have a CD4 count > 350 cells/µl. 63 (31%) patients had reached undetectable viral load. The causes of admission were due to non-HIV/AIDS-related conditions, in 231 (58.9%) of admissions. Firstly infectious diseases, 92 cases (24%), secondly advanced liver disease in 35 patients (12%), followed by neoplasms and cardiovascular events. 158 (40.4%) were as a result of HIV/AIDS-related events, usually opportunistic infections. The mortality was 37 patients (18.2%), 15 (40.5%) died in the first episode of admission. The distribution of deaths per year was also irregular, in 2007 died 9 patients (24.3%), in 2008 8 patients (21.6%), in 2009 9 deaths (24.3%), in 2010 8 deaths (21.6%), in 2011 5 deaths (13.5%). The most important cause of death were non-AIDS-related events, in 22 cases, (60%). 10 deaths (45.5%) due to liver disease, 7 (31.8%) due to infection and 5 (22.7%) due to malignant tumours. 15 patients (40%) died because of AIDS-related events, 12 (73.3%) because of infections, 2 (13.3%) because of neoplasms and 1 (6.6%) case due to an ischemic event.

Discussion: The progression and mortality due toHIV/AIDS infection has decreased dramatically since the introduction of the highly active antiretroviral therapy (HAART). In developed countries has changed consideration of HIV infection as a chronic manageable disease. The clinical benefits associated with HAART seems to be largely, primarily because of reductions in deaths attributable to AIDS-related conditions however, an increasing number of deaths are attributable to causes not conventionally considered to be HIV related. This study confirm these data, most of patients need to be admitted and die, because of non AIDS-related illnesses, moreover in our population, where HCV co-infection it's a great problem. Anyway, the immunological status seems to be also implicated in many of these not conventionally considered HIV-related conditions, so improving the treatments and the immunological status continue representing a specific target.

Conclusions: The most frequent transmission route in patients with HIV infection who needed admission, was the intravenous, in previously parenteral drug users. Most patients admitted were co-infected with CHV. Most of the patients were treated with antiretroviral therapy, nearly the half of them with CD4 cell count > 200 cells/ul and undetectable viral load. The most important cause of admission and mortality in patients with HIV infection was due to non-HIV/AIDS-related conditions.

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EPIDEMIOLOGY OF HIDATIDIC CYST IN OUR SANITARY AREA

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Objectives: Human cystic echinococcosis (CE) cause by Echinococcus granulosus is a widely distributed zoonosis, known in the Greek antiquity, which may cause severe or even lethal disease in humans and considerable economic losses. Since the first case report in 1892, later studies reveal that the infection may be spreading from endemic (Austria, France, Germany, and Switzerland in Europe, Japan Islands and Northern Tundra Zone in North America) to non-endemic regions. Spreading risk factors identified are: increase of fox population sizes, increase of E. granulosus prevalence in foxes, invasion of cities by foxes, the establishment of urban cycles of the parasite, changes in land-use patterns and human behaviour. In Spain, endemics areas are "Castilla-León", "Aragón", "Navarra" and "La Rioja". It was an Obligatory Declaration Disease from 1981 to 1996 and its real incidence and prevalence is unknown in Spain. However persistence or re-emergence of this infection is well documented in some countries and is primarily caused by the lack or reduction of control measures. Based on the data of previous studies talking about an increase of this infection we have make an observational study to see the prevalence and clinical evolution of this disease in our sanitary area.

Material and method: We have made an observational descriptive study of all the cases from 1996 to 2011 in our sanitary area in Internal Medicine Services. We used the 9th Disease Classification for cystic echinococcosis (CIE-9), corresponding to codes from 120.0 to 122.9. We recollected epidemiological data such as the age of diagnosis, the diagnostic method, the treatment and the clinical evolution. We included all patients diagnosed by serological tests, after intervention or by radiological images. We used the SPSS statistical program to analyse the data.

Results: We identified 49 cases, 50.5% women. The mean age was 81 years old. The localizations of cyst were: 37 hepatic, 4 pulmonary, 1 renal, 2 pulmonary and hepatic and 5 diseminated. The diagnose technique used in 27 patients was abdominal CT, in 12 cases thoracic X-ray, in 7 cases abdominal ultrasonography and only three were diagnose by abdominal X-ray. Serology test were only used in 9 cases, being positive in 7 cases. Most therapy given was cyst resection (17 patients), using a combination with surgery and albendazol in 3 patients. Only one patient was treated with albendazol as unique therapy. 31 patients received no treatment. Patients without any treatment were incidental diagnoses.

Discussion: CE was thought to be an eradicated disease. However in our population of study, we have seen that there are still new cases diagnosed, and even in young people. These findings have been studied recently in Spanish population, with similar results. Analyse the potential risks factors of the disease was not possible due to the high percentage of incidental diagnose.

A-291
A 5-YEAR RESTROSPECTIVE REVIEW ABOUT CLOSTRIDIUM DIFFICILE-ASSOCIATED DIARRHEA IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Clostridium difficile infection (CDI) is the leading cause of health care-associated diarrhea and a significant cause of morbidity and mortality among elderly hospitalized patients. CDI is diagnosed when symptoms (usually diarrhea) are present and either a stool test is positive for Clostridium difficile toxins, colonoscopy or histopathology reveals pseudomembranous colitis. The aim of this study was to review CDI in patients hospitalized and to assess its symptoms, diagnosis, risk factors, treatment and complications.

Material and method: We conducted a descriptive and retrospective study including all inpatients admitted in an Internal Medicine Department between February 2007 and February 2012, who had symptoms of diarrhea and a stool test for C. difficile was requested. The laboratory test used was a toxin assays by enzyme immunoassay (EIA).

Results: A total of 392 patients were included in the study. Of these, 39 (9.9%) had a stool test positive for C. difficile. Of 353 patients with a negative stool test, 63 patients had colonoscopy and of these, 5 had pseudomembranous colitis. So, 44 (39+5) patients (11.5%) were diagnosed with CDI. In these 44 patients, the median age was 76.4 years, 63.6% were female and the average days of hospitalization was 39.9 days. In only 16 patients were documented other symptoms such as abdominal pain, bloating, fever and vomiting. 97.7% of these 44 patients had risk factors: 37 patients (86%) had ≥ 65 years old with 62.2% older than 75 years; 81.4% had antibiotic exposure, and the antibiotics most frequently associated were piperacillin/tazobactam, amoxicillin/clavulanic acid, ciprofloxacin and carbapenems; 58% had hospital-acquired CDI and the mean day of onset of symptoms was 15.2 days; 67.4% used proton-pump inhibitor (PPI); 27.9% had immunosuppression; 11.6% had feeding tubes and 4.6% had recent history of gastrointestinal surgery. Overall, 89% (39) of them were treated for CDI. Of those, 90% (35) of patients recovered with one course of antibiotics (30 with metronidazole, 4 with metronidazole + Vancomycin and 1 with vancomycin). 10% (4) patients required second course of therapy with vancomycin with resolution of symptoms. 8 patients with CDI died but CDI wasn´t the cause of death of any patient. Complications like toxic megacolon or bowel perforation were not documented.

Discussion: Our study is in concordance with what reported in the literature. The most commonly identified risk factors were advanced age, broad-spectrum antibiotic exposure, hospitalization and the use of PPI. Good clinical results were achieved with metronidazole and vancomycin which remain the mainstays of CDI treatment. The incidence of CDI in this study might be underdiagnosed because the laboratory diagnostic test for C. difficile used (EIA) has only moderate and variable sensitivity (65 to 95 percent) and colonoscopy was requested in a small proportion of patients with a negative Clostridium stool test.

Conclusions: C. difficile is an important cause of health care-associated infections. Watery diarrhea is the cardinal clinical symptom. The diagnosis should be based on results from a laboratory diagnostic test or an endoscopic evaluation that demonstrates pseudomembranes in the colon. Major risk factors for CDI include exposure to antimicrobial agents, hospitalization and advanced age. The cornerstones of CDI treatment are metronidazole and vancomycin.

A-292
BLOODSTREAM INFECTIONS CAUSED BY GRAM NEGATIVE BACTERIA IN AN INTERNAL MEDICINE WARD

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Objectives: To describe the clinical characteristics, epidemiology, treatment and complications in patients with bloodstream infection (BSI) caused by gram negative (GN) bacteria in an Internal Medicine ward.

Material and method: We carried out a descriptive study on bacteraemia caused by GN bacteria detected from December 1st, 2011 to May 15th 2012, in an Internal Medicine department with 114 beds. We analyse those patients who had positive blood cultures for GN bacteria. We describe the demographic, microbiological, clinical data and outcome of the patients affected. We consider appropriate treatment when the antibiotic used was effective in vitro according to the antibiogram susceptibility.

Results: From a total of 67 bacteraemia isolated from 63 patients, we collected 30 cases of bacteraemia caused by GN microorganisms (with a cumulative incidence of 2% of all admissions). The mean age was 84.6 years (range 76-97), being 7 males and 23 females. The mean Charlson score was 2.7 (DS: 1.6). For functionality evaluation our patients had a mean of 49.2 in Barthel index and 30% had a F-G Katz index. 9 (30%) had health care associated infections, while 9 (30%) were nosocomial. 8 (26.6%) had been hospitalized in the previous 3 months and 12 (40%) had been treated with antibiotics during the previous month. Blood cultures demonstrated isolation of Escherichia coli in 21 cases (70%), 3 Klebsiella pneumoniae, 2 Proteus vulgaris, 2 Pseudomonas aeruginosa. 6 bacteria had ESBL (extended spectrum beta-lactamase). The urinary tract was the most frequent source of infection with 21 cases (70%), followed by abdominal infection with 4 (13.3%). 17 patients (56.7%) had a clinical feature of sepsis, severe sepsis (7), septic shock (3) and multiorganic failure (2). 3 of these needed vasoactive drugs. Empiric treatment was started in 29 patients, it was considered adequate in 20 of them (66.6%), and afterwards sequenced to another antibiotic or oral equivalent in 20 patients (66.6%). 26 patients were treated successfully and 4 died (13.3%).

Discussion: We have a predominance of women (76.6%) and all our patients are over 75 years of age. We find a high dependency level and most patients have several comorbidities. The main pathogen found is E. coli and the most frequent source of infection is nephrourologic in accordance with other studies. ESBL was isolated in 20% of which 33.3% were health-care associated. All of them except one received an inappropriate empirical therapy, 2 (33.3%) died. This may be due to the fact that all of them where sequenced correctly after receiving the microbiological results. 2 (33.3%) of the ESBL isolated were community acquired, which is a higher rate than that found in other series. We have a death rate of 13.3%, which could be explained by the baseline characteristics of our patients. When referring to patients with health care associated infections mortality ascends to 33.3%, in the case of nosocomial infections it is of 11.1%. In the latter groups E. coli is still the main pathogen, but it is remarkable that there is a high rate of multiresistant strains. This may be one of the causes that explain why mortality is higher in both groups. 56.7% (17) patients presented with sepsis, 10% (3) of which had septic shock. All of the patients who died did so because of sepsis. 70.5% were community-acquired. As our data shows we have a high incidence of sepsis, which could be related to the characteristics of our patients.

Conclusions: GN bacteraemia is an important cause of morbidity and mortality in the adult population. E. coli is still the main pathogen related to the fact that urinary tract infections are the most frequent focus in this infections. Measures should be implemented to help prevent and reduce the incidence of health care associated and nosocomial infections. It is also important to identify risk factors for GN resistant microorganisms' BSI, which may help to optimize empiric treatment.

A-294
CANDIDA OSTEOARTICULAR INFECTIONS

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Objectives: To analyze the clinical features, risk factors, treatment and final outcome of patients with a diagnosis of *Candida* arthritis in a third level hospital.

Material and method: Retrospective analysis of patients with diagnosis of *Candida* arthritis admitted to Son Espases University Hospital (reference hospital for the Balearic Islands). They were evaluated by the Infectious Diseases Department, from 04/2009 to 05/2012. We analyzed medical history, risk factors, medical antifungal therapy, surgical treatment and final outcome.

Results: Six patients were identified: 2 men and 4 women. Average age was 56.3 years (SD: 13.6 y). Underlying conditions of

the patients included: Rheumatoid arthritis and Crohn´s disease (1), alcoholism and chronic liver disease (2), diabetes mellitus (1), heart failure (1). Four patients had prosthetic arthritis, all after reimplantation. One patient had postoperative arthritis after arthrodesis and one previously had had several surgical interventions due to ligament ruptures. The affected joint was the knee in five cases and the hip in one. According to the Tsukuyama et al. classification, we found two Type 1 infections, three Type 2 and one type 4. Two patients had had previous bacterial prosthesis infection due to Staphylococcus lugdunensis and Enterobacter cloacae, and they received antibiotic therapy for a prolonged period of time, between 2 and 4 months before *Candida* infection. The clinical presentation in all patients was mild pain, local sings and reduced mobility. None of the patients had fever. The erythrocyte sedimentation rate (average: 81mm/hr SD: 22.7 mm/h) and C-reactive protein (average: 7.67 mg/dl SD: 7.26 mg/dl) were elevated in all of them. The diagnosis was established by cultures; from intra-operative samples in 3 cases, from joint aspirations and intra-operative samples in 2 cases, and from wound exudates and intraoperative samples in 1 case. The species isolated were Candida albicans in three cases and Candida parapsilosis in three cases. Candida parapsilosis was resistant to fluconazole in one case and resistant to fluconazole and voriconazole in other case. Two patients had bacterial confection with Staphylococcus aureus and coagulase-negative Staphylococcus. Five patients received antifungal treatment for a prolonged time. Fluconazole was used in monotherapy in three cases. In other case the medical therapy consisted of amphotericin B followed by oral fluconazole. Of the two patients with antibiotic resistance, one was treated with amphotericin B followed by oral posaconazole and other with amputation. The surgical approach in the patients with prosthetic joint infection was debridement and prosthetic retention (2 cases) or arthrodesis and amputation (2 cases). Patients with no prosthetic arthritis were treated with debridement. The outcome in three cases was the resolution of the infection. Two cases continued on antifungal treatment with appropriate clinical course, and other case had an unfavorable outcome with femur supracondylar amputation.

Conclusions: We have observed a change in the pattern of Candida's osteoarticular involvement. Currently the main risk factors observed are prosthetic joint implantation with several surgical revisions, and several joint interventions. Previous bacterial prosthesis infection and previous antibiotic treatment for prolonged time can also be risk factors. The isolated species were Candida albicans and Candida parapsilosis. The outcome is not always favorable, and sometimes it is necessary to perform arthrodesis or even amputation.

A-295
OUTPATIENT PARENTERAL ANTIMICROBIAL THERAPY IN BACTEREMIAS

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Objectives: Outpatient and home care can be an effective and safe alternative to conventional medical practice. One of their tools is the outpatient parenteral antimicrobial therapy (OPAT) in infectious diseases, including bacteremias, a common disease with high mortality. Analyse and evaluate a program of outpatient parenteral antimicrobial therapy in patients with bloodstream infections.

Material and method: Retrospective observational study of bacteremia treated in Hospital at Home in a tertiary care hospital between January 1, 2009 and December 31, 2011. We analyzed clinical manifestations, comobird conditions of patients, microbiological culture, parenteral antimicrobial, infusion devices, catheter changes, adverse reactions and safety profile of treatment.

Results: We included 27 patients: 22.2% in 2009, 29.6% in 2010, and 48.1% in 2011. 51.8% were women. Average age: 57.7 years. Average stay was 8 days. The departments involved were: Infectious (Internal Medicine) 33.3%, Oncology 29.6%, Short Stay Unit 11.1%, others 25.9%. 29.6% were immunocompromised patients, 25.9% were treated with chemotherapy or radiotherapy, and with prosthetic heart valve 11.1%. The gram-negative bacilli were responsible for 51. 8%. The community-acquired bacteremias for 59.2%, with 62.5% of gram-negative.(43.7% E. coli) Associated health care: 25.9% with 57.1% of gram-positive and 28.6% of E. coli ESBL, nosocomial 22.2%, 83.3% gram-positive (Staphylococcus aureus 66.7%) The most common organism isolates in blood cultures were E. coli in 37% (11.1% ESBL), S. aureus 22.2%, P. aeruginosa, S. epidermidis and Listeria 7.4%; E. faecalis, S. dysglactiae, S. hominis, Klebsiella pneumoniae, Enterococcus faecalis, Enterobacter cloacae 3.7%. A case polymicrobial urine culture was collected in 51.8%, with 42.8% cases negative. 28.6% positive for E. coli. A culture positive for Enterococcus fallinarum in abdominal fluid and joint fluid culture positive for S. aureus. On the ward, in 14.8% was performed TEE (transesophageal echocardiography) and 11.1% transthoracic echocardiography (TTE) with no findings of vegetations. Antibiotics used: ceftriaxone 25.9%, 22.2% cloxacillin, ertapenem 14.8%, 11.1% vancomycin and ampicillin, piperacillin-tazobactam 7.4%. There was no adverse drug reaction. In 29.6% a central catheter was introduced. For treatment the catheter average was 1.63. Average vancomycin was 3 catheters per treatment. Cause of parts: 50% phlebitis, extravasations 50%. The source of infection was: 29.6% of UTI (urinary tract infections) in all patients, and 42.1% of patients diagnosed with origin. Catheter infection 18.5%, 7.4% pneumonia, pyelonephritis, intraabdominal infection, infection prosthetic fistula and arthritis 3.7%, respectively. 44.4% of unknown origin. Destination on discharge: primary 92.6%, 7.4% readmissions, one for intervention, and another for poor outcome.

Conclusions: Hospital at Home is an effective and safe alternative to conventional hospitalization, and in our study clinical results were good with a low number of complications. To achieve optimum performance requires an adequate patient selection and home environment, a continuum of clinical and laboratory results, have a multidisciplinary team and a larger number of prospective trials. Hospital at Home can reduce health care costs, improve quality of life of patients and their families and reduce nosocomial infections. The intravenous care needs venous access and infusion rate of drugs. Antibiotics are the single ideal dose, infusion times short and stable. Vancomycin needs more of venous access for their osmolarity.

A-296
LISTERIOSIS IN THE ADULT IN A HEALTH AREA OF VIGO. PRESENTATION OF 11 CASES

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Objectives: Analyze comorbidity, clinical presentation, treatment given and medical evolution of episodes of infection with L. monocytogenes caused in the last 20 years in our hospital.

Material and method: We reviewed the medical reports of patients with the diagnosis of infection by L. monocytogenes in Povisa's Hospital of Vigo, from January 1992 to March 2012.

Results: Eleven patients were admitted with this diagnosis: 5 men and 6 women; mean age in males was 62 years old, and

72 in females. 9 patients (82%) had a disease or predisposing condition: 5 patients (55%) were diabetic, 3 (33%) were treated with corticosteroids, 2 cases (22%) had solid organ tumor and 1 case (11%) was diagnosed with a hematologic neoplasia. In 7 cases (63%) disease is manifested by involvement of central nervous system (5 cases as meningitis, one meningoencephalitis and one rhomboencephalitis), in 3 cases (27%) as bacteremia and one as septic arthritis. Five patients (45%) received treatment with ampicillin and five (45%) were treated with combined therapy ampicilin + gentamicin. The remaining patient received cotrimoxazole because he was allergic to penicillin.

Discussion: Listeria monocytogenes is an anaerobic gram-positive intracellular facultative coccobacillus, cause of infections acquired through ingestion of contaminated food. Listeriosis occurs mainly in neonates, pregnant women, elderly and in patients with affected cellular immunity, although occasionally can affect healthy individuals. 70% of infections outside the neonatal period are in context of hematologic malignancies, acquired immunodeficiency syndrome, organ transplantation and immunosuppressive therapy with corticosteroids, in which the infection is mainly manifested as bacteremia with or without accompanying meningoencephalitis.

Conclusions: Very often, patients with listeriosis have a predisposing disease associated. Empiric antibiotic therapy of meningitis or meningoencephalits in immunocompromised patients must take into account this possible etiology.

A-297
FUNGAL BLOODSTREAM INFECTIONS IN AN INTERNAL MEDICINE DEPARTMENT. EPIDEMIOLOGY AND MANAGEMENT

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Objectives: Bacteremia is defined as the presence of bacteria in blood, evidenced by the isolation of these ones in blood cultures. Fungemia is the term used to describe the presence of fungi in bloodstream. Both of them are serious complications of bacterial and fungal infections, which yield high rates of severe sepsis and mortality. This paper tries to describe and analyse the clinical and microbiological features of the inpatients of an Internal Medicine Service who presented Candida spp. in blood cultures.

Material and method: We performed a retrospective and non-interventional study in an Internal Medicine Department of a Tertiary Care Hospital for six months (November 30th 2011-May 10th 2012). The inclusion criterion was fungal bloodstream infection proven by positive blood cultures described in patients studied in our department. We added baseline characteristics of our patients as age, gender, Charlson Score, Barthel and Katz scales, Candida Score and clinical (signs and symptoms during bacteremia, evolution of the infection) and microbiological (results of blood cultures, antibiotherapy) data.

Results: Among sixty-seven inpatients studied, four met inclusion criterion (5.9%). Mean age: eighty-two years; Gender: 100% male. In relation to risk factors to develop fungemia, we found that one of them had previously used antibiotics (25%) and one of them had previously received chemotherapy due to underlying disease (limphoma) and parenteral nutrition (25%). Among clinical manifestations, the four of them developed fever and leukocytosis and two of them presented elevated acute phase rectants. Related to the origin of the infection, we found that three patients came from an elderly care institution (75%). Community origin was seen in one patient (25%). Abdominal infection was the most frequent source (50%), followed by central venous access catheter (25%) and unknown source (25%). Three species of Candida were isolated in blood cultures: C. albicans (50%), C. parapsilosis (25%), C. glabrata (25%). The whole patients received broad-spectrum empirical antibiotherapy: Piperaciline/Tazobactam (50%), Piperaciline/Tazobactam and Vancomycin (25%), Cefotaxime (25%). Based on the sensitivity of the strain, treatments were changed to Fluconazole in 75% of patients. The course of the infection yielded death in two cases (one of them did not receive Fluconazole). One of them presented recovery of two episodes of fungemia and one of them developed severe sepsis.

Discussion: The rate of fungemia found in our study is similar to the rates found in Critical Care Departments (2-9%). Our results, shown among medical patients, are higher than rates previously studied among surgical patients (1%). Related to precedents of risk factors as central venous access catheter, our data are similar to previous studies as well (5-7%).In relation to risk factors to develop fungemia, in our patients we could prove the precedent of cancer (one patient), use of central venous access catheter (one patient), need of parenteral nutrition (one patient). Although the same antifungical treatment was finally used in all cases (Fluconazole), the course of fungemia yielded different outcomes, perhaps influenced by the different morbidity of our patients. Probably, outcomes would not have been different with other agents as Anfotericine B or Caspofungine whose effectiveness is similar.

Conclusions: In our study, we can conclude that most frequent clinical manifestations of fungal bloodstream infections are fever and leukocytosis. Most important risk factors are cancer, parenteral nutrition and central venous access catheter. The most frequent fungus isolated was Candida albicans. The most frequent treatment was Fluconazole. Fungal bloodstream infection yield high rates of severe sepsis (25%) and mortality (50%).

A-298
ENVIRONMENTAL MICROBIOLOGICAL STUDY IN A NEW HOSPITAL

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Objectives: Establishing in the new facilities a working methodology based on preventive control, adopt an effective routine of controls that minimizes risk, establish warning system based on reliable indicators, define environmental quality standards and mechanisms for performance in the new hospital building (Level 2, of 326 beds, with a reference population of 250,000).

Material and method: This is a task-group that organizes the areas of the 90,000 m2 new building according to different kinds of air filtration and severity of hospitalized patients and agree on actions to detect early increases in levels of spores and mesolithic flora and take corrective action prior to the occurrence of nosocomial infections.

Results: A work table, that contains the type of area, its classification, when and how to collect microbiological controls, was created. Microbiological sampling of 327 samples during the first year of operation of the center revealed the proper functioning of the facilities and the efforts of different teams together with maintenance and housekeeping to preserve them (28 samples in

delivery rooms, 159 samples in operating rooms, 52 ICU samples, 20 samples in pharmaceuticals, 48 samples in filters, 20 samples in neonatal). Data analyze shows that: -Areas in which the installation has a triple filtration system with HEPA filter (10 general surgery operating rooms, 1 obstetric, 7 delivery rooms and 5 pharmaceutical wards) the results are kept within reference values according to regulations, except two pharmaceutical wards, that required an extraordinary intervention of cleaning and an organizational change. -Double infiltration areas without HEPA final filter (12 ICU-boxes, 5 neonatal boxes) the results are significant oscillations, that require thorough cleaning interventions, a filter change, 2 correction air-filter circuits, a change to ICU access. -Data analyse helped review frequency checks adjusting it according to microbiological results.

Discussion: The change to the new facilities means having to balance usual health care activity with the finalization or internal review of certain structures of the new building. Expectations for improvement are not always achieved immediately, starting an installation requires a lot of time and effort.

Conclusions: Developing this protocol avoids complications arising from indirect consequences that can have the social impact in terms of mistrust with the center to be news because of problems of nosocomial infections. And would give rise to significant cost increases for health care. In short, a protocol on environmental quality not only gains effectiveness but also efficiency.

A-299
FEBRILE NEUTROPENIA IN PATIENTS ADMITTED IN GENERAL HOSPITAL

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Objectives: Febrile neutropenia in cancer patients is among the most serious complications related to chemotherapy when it is myelosuppressive (suppresses the bone marrow from producing blood cells). In patients with febrile neutropenia are treated with empirical antibiotics until the neutrophil count has recovered and the fever has abated. Our purpose was studied the epidemiological and clinical variables in patients with febrile neutropenia admitted in general hospital.

Material and method: Prospective study of 51 patients with febrile neutropenia of Torrecardenas Hospital from January until December 2011. We analyzed: age, sex, neutrophil count, daily living abilities of patients with ECOG performance status (Eastern Cooperative Oncology Group), type of neoplasic, chemotherapy and evolution. We also analyzed the microbiological variables. The data were analyzed by using SPSS 18.0 stadistical package.

Results: The following variables were studied: age 58 ± 13 years, sex 19 males (34%)/36 females (66%) and neutrophil count 327 ± 62/mm^3. ECOG performance status: 0 (24 patients: 43.6%), 1 (17 patients: 30.9%), 2 (8 patients: 14.5%), 3 (6 patients: 10.9%). 2 patients died (3.6%). We analyzed the neoplasia type: breast in 25 patients (45.5%), lung in 13 patients (23.6%), gastric in 6 patients (10.9%) and other (eg ovarian, prostate, CNS and pancreas cancer) in 9 patients (16%). We found metastases in 22 patients (40%). 69.1% (38 patients) received adjuvant chemotherapy. Blood cultures were performed in all patients in all patients. Only two blood cultures were positive (with methicillin-susceptible Staphylococcus aureus). The source of the fever was found in 8 patients: urinary in 2 patients, lung in 3 and abdominal in 3. 47.3% of patients received antibiotics at discharge. Analyzing therapeutic families antibiotics: fluoroquinolones (9 patients: 16.36%), amoxicillin clavulanate (8 patients: 14.5%) and a combinations with: fluoroquinolones + amoxicillin clavulanate (5 patients: 9.1%).

A-300
POTENTIAL RISK FACTORS RELATED TO RECURRENCE IN CLOSTRIDIUM DIFFICILE DISEASE

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Objectives: Clostridium difficile disease (CDD) is increasing in recent years as the population gets older and the use of broad-spectrum antibiotics becomes more frequent. Recurrence in CDD occurs in 10-15% in other series, but final risk factors for recurrence remain difficult to identify. The aim of our study is to analyze different features potentially linked with recurrence of CDD.

Material and method: We reviewed 111 computerized clinical histories of patients with positive Clostridium difficile toxin over a period of 2 years (between January 2010 and February 2012) from medical departments of the "Hospital Universitario de La Princesa", Madrid: Accident and Emergency department, Internal Medicine and Infectious Diseases wards. Epidemiologic, prognostic, laboratory and therapeutic features were analyzed with the SPSS 15.0 program.

Results: We identified 88 cases of CDD, mean age of 72 years (SD ± 18), with a recurrence rate of 13.6% (12) (we defined recurrence as new onset of symptoms with positive toxin detection) after 12 months of follow-up. 83% of recurrence in women (p = 0.07), 67% in immunosuppressed patients (p = 0.28), 41% (5) in patients older than 85 years (p = 0.18). 80% (70) from the whole group and 91% of those with recurrent disease were treated with metronidazole alone (p = 0.26). 50 patients had received proton-pump inhibitors (PPIs), 18% (9) of them had a recurrence (p = 0.17). The recurrence rate was higher among patients receiving glycopeptides (60%, 5 cases, p = 0.01) and penicillins (29%, p = 0.009). No relapse in the group of patients on clindamicin (7). We found 47 health-care associated cases, in that group 6 patients (12%) had a recurrence (p = 0.79). Relapse rate in the group of patients with leukocytosis on diagnosis was 26% (p = 0.019).

Discussion: CDD has a high recurrence rate as described in other series. We found no relation between advanced age or immunosupression and relapsing disease, nor between previous use of proton-pump inhibitors and recurrence. Recurrence rate was higher in the group of patients receiving glycopeptides and penicillins and was also higher in patients with leukocytosis on diagnosis.

Conclusions: In our study, advanced age, immunosuppression, prior use of PPIs and health-care associated cases were not linked with a higher recurrence rate of CDD.

A-301
GRAM-POSITIVE BACTERAEMIA IN AN INTERNAL MEDICINE SERVICE: CLINICAL, MICROBIOLOGICAL AND EPIDEMIOLOGICAL FEATURES

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Objectives: Gram-positive cocci are a common cause of bloodstream infections (BSI), these currently constitute a thera-

peutic problem caused by the emergence of strains with resistance to antibiotics used as the first-line therapeutic option. The aim of the study was to describe the clinical and epidemiological characteristics, and mortality associated with BSI in an Internal Medicine department.

Material and method: A retrospective, no interventional study was carried out in the Internal Medicine department of a tertiary level hospital over a 6 month period (December 1st 2011- May 15th 2012), including 30 patients who presented bacteraemia by Gram-Positive bacteria (GPB), confirmed in blood cultures.

Results: Overall, 32 episodes of bacteraemia were studied from 30 patients (2 patients presented 2 episodes of bactaeremia each: 2 new infections and 2 reinfections). Mean age of the patients included was 77.6 years, 53.12% were male. Community acquired and nosocomial bacteraemia was observed in 50% of the cases, respectively. Respiratory tract infections were the predominant cause of bacteraemia (21.8%), followed by unknown site of infection (18.7%); in only 3 cases (9.3%) bacteraemia was associated to a central catheter infection and 4 cases (12.5%) were secondary to a periphery vein access; in 2 cases (6.25%) was associated with osteoarticular infections, 2 (12.5%) cases with intraabdominal infections and 2 cases (6.25%) with skin infections. There was isolation of 4 different types of Gram-positive bacteria in cultures: 34.3% were Coagulase–negative staphylococci (CONS), 25% Staphylococci aureus, 28.1% Streptococcus, and 12.5% Enterococcus. In 2 cultures there was isolation of 2 Methicillin-resistent Staphylococci aureus (MRSA). There was an overall mortality rate of 37.5% associated to GPB bacteraemia: 41.6% by CONS, 25% by S. aureus (2 cases were caused by MRSA), 25% by Streptococcus (1 case was caused by S. pneumoniae), 8.3% by Enterococcus faecium. 50% of the deaths due to bacteraemia by GPB were nosocomial, 66.7% of the deceased patients had a Charlson score > 4 and were not receiving an adequate empiric antibiotic therapy, respectively.

Discussion: The population studied was characterized by elderly patients (> 77 years) with high comorbidity (represented with high Charlson, Kats and Barthel scores). Most of these patients reside in chronic care centers and/or nursing homes, which represent a predisposing factor for acquiring infections. Similar as previous series, the highest rate of bactaeremia was caused by CONS (34.3%), probably secondary to contaminants due to invasive techniques, such as placement of peripheral vein access. In second place, there was isolation of streptococci (28.1%), being streptococcus pneumoniae the main causal agent of respiratory tract infections; these infections were the main cause of bactaeremia (21.8%), followed by unknown site of infection (18.7%). Bacteraemia was secondary to nosocomial infections in 50% of cases, similar to previous studies, which can probably be related to the high comorbidity of our patients and their increasing need of frequent medical attention and hospitalizations. In our series, 40% of the patients had required antibiotic treatment during a prior hospitalization (within the previous 3 months). There was an overall mortality rate of 40%, which could be linked to the high incidence of nosocomial bacteraemia, inadequate empirical treatment (66.7%) and the epidemiological characteristics of the subjects studied.

Conclusions: Gram positive cocci bacteremia among the elderly is associated with high mortality, which can be related to high incidence of nosocomial bacteraemia, inadequate empirical treatment and high comorbidity. Due to high incidence of infections by contaminants isolated in cultures, it is possible that by intensifying strict hygiene measures during placement of vein accesses a reduction of nosocomial BSI can be achieved.

A-302
VARICELLA PNEUMONIA: SERIOUS COMPLICATION OF CHICKENPOX

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Objectives: Chickenpox pneumonia is the most severe complication when someone becomes affected by varicela-zoster's virus. This complication is mostly seen in adults (10-50% of adults). It's particularly severe in pregnant women and immunocompromised patients. Hypoxemia, thrombopenia, increased LDH, and elevated antitransferases are frequent, being the elevation of LDH and de hypoxemia at the admission to the hospital criteria associated with bad long-term prognosis. Diffuse interstitial infiltrates with basal nodules are frequent radiological findings. The objective is to describe the pattern of presentation of all diagnosed cases of varicela pneumonia since the opening of the Hospital Universitario de Fuenlabrada (HUFLR) between June 2004 and April 2012.

Material and method: Descriptive study of all cases of varicella pneumonia diagnosed in the period HUFLR June 2004 to April 2012. We analized the following items: age, sex, predominant months of onset, known source of infection, pneumonia predisposing factors (smokers, old age, immunosuppression and pregnancy). We also analyzed time until the diagnosis was preformed, the presence of respiratory symptoms, if the patient received previous treatment, thrombocytopenia, levels of LDH, AST, ALT, presence of coagulopathy, and hypoxemia.

Results: We diagnosed 13 cases of varicella pneumonia in the study period, mainly in the months of December (4 cases) and from February to April (6 cases). They were predominantly young patients (age: 32.38 years), women (69%) and smokers (85%). As risk population we found a immunosuppressed (splenectomized) patient. There were no pregnant women affected. 54% of the patients had no known source of infection. 77% (10) had received treatment previously. The symptoms were mainly respiratory in 77% and 4 cases (30.76%) presented severe respiratory distress. In 12 patients (92.31%) the rash was classified as severe. Only one was admitted to the ICU (48 hours) but didn't require mechanical ventilation. In all cases there was a nodular-interstitial pattern. Among the analytical data there is as constant elevation of AST/ALT/GGT (61.53%), thrombocytopenia (53.84%) and hypoxemia (46.15%). None presented data of coagulopathy. All patients received high-dose intravenous acyclovir at an early stage. There were no deaths.

Conclusions: We observed that varicella pneumonia is a serious complication that affects young patients and smokers (factor that favours pneumonia). We should suspect varicella pneumonia in the patients that start with acute respiratory failure who are diagnosed previously of varicella-zoster, in order to start the treatment as soon as possible, and always having in mind that they may require at some point ICU cares. The elevation of hepatic transaminases and thrombocytopenia is very common. Early treatment with intravenous acyclovir entails a better prognosis and early clinical improvement with rapid resolution of pneumonia.

A-303
VARIATION IN LIPID PROFILE IN HIV PATIENTS WHICH ANTIRETROVIRAL TREATMENT IS SIMPLIFIED GOING FROM STANDARD TRIPLE THERAPY TO MONOTHERAPY WITH PROTEASE INHIBITORS

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Objectives: The protective factor of some nucleoside analogues has been recently described, especially the tenofovir for lipid

abnormalities in HIV + patients with antiretroviral treatment. It also is widely described, how protease inhibitors can alter lipid profile with an increase in total cholesterol, LDL cholesterol and triglyceride of patients treated, and therefore increase risk of cardiovascular events. We want to observe how the lipid parameters behave in HIV patients treated with standard triple- therapy to which treatment has been simplified to mono-therapy with an IP.

Material and method: An observational, descriptive and retrospective study was done of samples of 24 HIV+ patients, controlled in our center, during the years 2010/2011. We observe, total cholesterol levels, LDL cholesterol, HDL cholesterol and triglyceride's, before the change to mono-therapy and at 3, 6 and 12 months of change.

Results: Of the 24 patients who started mono-therapy, 5 of them were excluded from the study (3 were transferred to other centers and two for not making the required controls). Of the remaining 19, six were women and 13 men, with an average age of 45 years. Of all patients included, 13 were treated with Tenofovir/Emtricitavina of which 9 began mono-therapy with darunavir and 4 with lopinavir. The other six patients were treated with abacavir/lamivudine, of which 3 initiated mono-therapy lopinavir and 3 darunavir (all patients, besides the pair of analogues, were treated with an IP, except for one patient who was in treatment with Efavirenz). Prior to the start of mono-therapy 6 patients were treated with lipid-lowering (1 with ezetimibe, 1 with omega3, 1 with fibrate and 3 with statin). In the following 12 months after the transition of triple-therapy to mono-therapy, at 4 patients lipid lowering therapy was initiated and 1 patient, who already had lipid lowering therapy, treatment was modified. It was decided to exclude patients who have initiated or changed lipid-lowering therapy during the follow-up treatment:.

Discussion: In the overall studied patients, independently of the previous analogous couple and IP in mono-therapy, there was a significant increase in the first three months of treatment with monotherapy in both, total CT as LDL cholesterol and TG's which then will decrease to stabilize between the 6th and 12th months after beginning mono-therapy. If we compare the lipid abnormalities according to previous analogous couple (TNF/FTC or ABC/3TC) the trend is similar in both groups: higher numbers are being seen in all parameters in the first 3 months, to go decreasing and stabilizing in the following months, but, patients on ABC/3TC start with higher starting levels. As for IP we can observe higher levels of total CTI, LDL and TG, in patients on Lopinavir as in patients on Darunavir.

Conclusions: The transition from triple-therapy to mono-therapy with IP, initially is accompanied by an elevation of lipid parameters in the first 3 months, to then decrease and stabilize, independently of the couple of analogues and the IP of mono-therapy at the start. Patients who initially had a couple of nucleoside analogues that included TNF started with lower levels of total cholesterol and triglyceride's, but at one year the numbers are equal regardless of the initial couple of analogues. Patients on monotherapy with darunavir have lower alteration of lipid parameters than those treated with lopinavir during the 12 month follow-up, something already described in literature. In patients observed at 12 months of initiation, IP monotherapy does not cause major alterations in lipid profile than standard triple-therapy, although further studies, designed for the purpose, with a greater numbers of patients included are needed for a more reliable conclusion.

A-304
WHIPPLE'S DISEASE. A RETROSPECTIVE STUDY FROM 1998 TO 2011

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Objectives: Whipple's Disease (WD) is a chronic infection of multiorganic location, caused by the Tropheryma whipplei bacteria. Since 1907-2000, have been described approximately 1000 cases over the world. We studied epidemiological, clinical, diagnostic and therapeutic characteristics of WD cases in our hospital.

Material and method: Retrospective study from 1998 to 2011 in a hospital with 900 beds was made. Patients were selected with the diagnosis of classic WD. We selected those cases that fulfilled criteria in biopsy of protein chain reaction (PCR) from small intestine and positive histology. Cases were excluded if they had not sufficient clinical information.

Results: Six cases were selected. About the gender, 50% were male. The age range was between 65-79 years. There were no family cases. All individuals were Caucasian with Spanish nationality. Three cases were exposed to the ground and/or animals. The average time of delay between the beginning of the symptoms and the diagnosis was from 2 months to 12 years. In the cases that were diagnosed between 2005 to 2007, the average delay was 2 months, while in the 90s, the delay was 8-12 years. All the six cases (100%) had presented asthenia and loss of weight (83% < 10 kg). Three patients (50%) had fever before the diagnosis. Four (66%) had adenopathies. Six cases (100%) presented gastrointestinal involvement. 4 patient had arthralgias. 4 cases (66%) presented neurological involvement. On the other hand, 5 cases had anemia (83%), with iron deficiency in all of them, at the moment of the diagnosis. ESR and reactive C protein were raised in 100% and 33% respectively. In the 6 cases (100%), the reactants of acute phase were kept high in spite of the treatment. Regarding the diagnosis, the diagnoses were made by PCR in 3 cases (50%) and were PAS + in 5 (83%) patients. About the treatment, the cotrimoxazol was the most used. Three patients are followed at the moment. Actually, all the cases are still alive except a patient who died for other reasons without relationship to this disease.

Conclusions: The WD is highly infrequent and difficult to diagnose. In our series, we found a delay of at least two months, in the final diagnosis. The most frequent symptoms were the asthenia, the loss of weight and the diarrhea (in all the patients) followed by the neurological involvement (in four cases). Five cases had iron deficiency anemia and all of them had elevation of the ESR. The diagnosis was made by PCR and/or PAS in all cases and all of them received cotrimoxazol. The survival to the disease was 100%. All these findings were similar to other series.

A-305
PNEUMOCYSTIS PNEUMONIA FOLLOWING RITUXIMAB THERAPY

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Objectives: Pneumocystis pneumonia (PcP) is an opportunistic fungal infection. Although Tcell immunity is classically related to Pneumocystis defense, recent data supports roles for B-lymphocytes in the development of PcP in animals, and we have observed several cases of PcP in patients receiving rituximab. These observations prompted a systematic review of our experience to define the spectrum of clinical presentations in which PcP has occurred in the setting of rituximab therapy.

Material and method: Using a computer-based search, we reviewed patients who received rituximab and developed PcP at Mayo Clinic Rochester over the years of 1998-2011 in order to establish the underlying conditions, clinical course, possible risk factors and potential association between this drug and the development of PcP.

Results: Over this period, 30 patients developed PcP during treatment with rituximab. The underlying diseases included

hematologic malignancies in 90% of cases. Glucocorticoids were used in 73% of these patients under different chemotherapeutic regimens. Three patients (10%) developed PcP in the setting of rituximab without concomitant chemotherapy or significant glucocorticoid exposure. Of these 30 patients, 88% developed acute hypoxemic respiratory failure and 53% required ICU admission. The clinical course was fatal in 30%.

Conclusions: PcP can occur in association with rituximab with the majority of cases having also received cytotoxic chemotherapy or significant doses of glucocorticoids. The clinical course of cases of rituximab associated PcP can be quite fulminant with significant mortality. Primary prophylaxis should be considered in patients at risk, and secondary prophylaxis provided unless immune reconstitution is well assured.

A-306
ORDERING BY DEFAULT. CONSIDERATIONS ABOUT SEROLOGICAL TESTS FOR RICKETTSIA CONORII REQUESTED BY CLINICIANS IN A THIRD LEVEL HOSPITAL

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Objectives: Analyze the performance of *Rickettsia conorii* serologies requested in the last 2 years at the Hospital Universitario La Paz.

Material and method: Descriptive observational study of all positive serologies for Rickettsia conorii obtained using indirect immunofluorescence analysis (IFA) in our center. We sort out the results by way of dilution titer, analyzing only the positive results with a titer 1/160 or higher. This way we analise true positive results and avoid cross-reaction bias. The clinical records of patients are used to confirm the value and to interpret results obtained.

Results: In the period between 2010, 2011 and the first 2 months of 2012, serum samples of 155 patients were collected and used for detection of Rickettsia conorii. 30 samples (19.4%) had titers of 1/160 or higher and 5 of these (3.2%) were mentioned in the medical history of patients. Only 4 of the above samples (2.6%) were found to be true (as suspected clinically). The rest were rejected (Ricketrsia conorii was not the pathogen involved). 4 of the 5 patients with positive serology in the medical records were treated with doxycicline and one with levofloxacin.

Discussion: Despite the publication of series of cases in which infection is documented using positive 1/80, Rickettsia conorii titers to consider infection in our series even with higher titers of 1/160 has almost no value due to the lack of assessment by the physician of the results obtained. The estimated price per test, without the cost of staff and facilities, is 4 euros (€), which in our series involves a total expenditure of € 620 (approximately € 286/ year) .Being € 100 the estimated cost of tests not taken into account.

Conclusions: When we first evaluate a patient, we often encounter the uncertainty of the unspecific symptoms. The orientation of the diagnostic tests to apply are often conditioned by the rush to obtain a diagnose and the easy access to certain serological tests (like in our case). The similar form of clinical manifestation of many diseases often demands the use of tests, in this case of microbiological diagnosis, to ensure the correct diagnosis. Making a proper medical history sets the basis for a correct diagnostic approach and this, in turn, guides the request for additional diagnostic testing to reach a definitive diagnosis, although nonspecific symptoms and signs may make difficult to see a clear case. The indiscriminate application of diagnostic testing can lead not only to unnecessary healthcare costs, but also to confusion in diagnosis because of an incorrect interpretation.

A-307
THREE YEARS OF SEPSIS IN NA INTERNAL MEDICINE WARD

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Objectives: Sepsis is a systemic inflammatory response syndrome set by an infectious agent and usually associated with great mortality. The aim of this study is to characterize the patients with this diagnosis admitted to an Internal Medicine Ward, according to gender, age, etiology of the sepsis, infectious agent, antibiotic therapy used and mortality.

Material and method: A retrospective review of all admitted patients' files with the diagnosis of sepsis, between January 2009 and December 2011, was performed.

Results: Of 3,925 patients admitted during this time period, in 66 (1.68%) sepsis was the first or second diagnosis. It was a mainly male population (44 patients, 66.6%), with a mean age of 76.1 years, being that only 9 patients (13.6%) are under 65 years old and 14 (21.2%) over 85 years old. Most patients were dependent in the daily living activities and living at home. Urosepsis (37 patients, 56%) and sepsis from respiratory origin (14 patients, 21.2%) were the most common etiologies. The isolation of the infectious agent is difficult at times – that was possible in 63.3% of patients. The most frequent agents were E. coli (28.6%), MRSA (14.3%) and Klebsiella (14.3%). Almost all patients had underlying diseases such as type 2 diabetes (23 patients, 34.8%), chronic renal disease (22 patients, 33.3%) and cancer (7, 10.6%) that can predispose to an infection. A mortality rate of 39.4% (26 patients) was found, being that of the 5 patients that were transferred to ICU's, three died.

Discussion: Urosepsis (37 patients, 56%) and sepsis from respiratory origin (14 patients, 21.2%) were the most common etiologies. The isolation of the infectious agent is difficult at times – that was possible in 63.3% of patients. The most frequent agents were E. coli (28.6%), MRSA (14.3%) and Klebsiella (14.3%). Almost all patients had underlying diseases such as type 2 diabetes (23 patients, 34.8%), chronic renal disease (22 patients, 33.3%) and cancer (7, 10.6%) that can predispose to an infection.

Conclusions: Sepsis is not only present in ICU's but also in Internal Medicine Wards, although probably under-diagnosed but always associated with high costs due to antibiotic therapy. It's generally an elderly population, with multiple underlying diseases, high mortality which does not correlate to age, being that only 37.8% of patients was discharged.

A-308
ACUTE HEPATITIS OF INFECTIOUS ORIGIN IN HOSPITAL CLÍNICO SAN CARLOS IN MADRID: ADMISSION AND FOLLOW-UP BETWEEN 2007-2009

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Objectives: To carry out a descriptive study of the number of patients admitted to a tertiary hospital in Madrid (Hospital Clínico San Carlos-HCSC) because of acute hepatitis with an infectious origin between 2007 and 2009.

Material and method: The data were collected through the Information System of the Hospital Admission and Clinical Documentation Service and were statistically processed with the

SSPS V 13.0 software. The corresponding statistic tests were used for each parameter.

Results: During the three-year period between 2007 and 2009, a total of 32 patients were admitted to the HCSC because of severe hepatitis with an infectious etiology: 62.5% of them were male. The predominant etiology was Hepatitis B Virus (HBV) (42%) followed by Hepatitis A Virus (HAV) (39%). The main consultation reasons were acholia, choluria and abdominal pain. Upon admission, 12.5% of patients was anemic, 9.4% had leucopenia, 3.1% leucocitosis, 12.5% thrombocytopenia, 6.2% renal failure and 35.5% had an INR equal or higher to 1.2. Among the study population, 100% showed elevated transaminase levels and only 12.5% showed a total level of bilirubin below 1. Upon arrival at the hospital, 71.8% of the patients (23) were in Child-Pugh class B while the rest were in class A. No class C case was detected. At admission, an echography was made to 62.5% of the patients. The most frequent results were hepatomegaly and an increase in the thickness of the gallbladder wall, both in 35% of the patients. 53% of the patients developed some kind of complication during admission, coagulopathy being the most frequent and requiring administration of vitamin K in 25% of the patients. No exitus was recorded during the study. Two patients started treatment with lamivudin and one with entecavir. Women had at admission statistically lower hemoglobin levels (without reaching anemia) and higher alkaline phosphatase levels (285.4 UI/L versus 191.3 UI/L). There were no statistically significant differences between genders in Child-Pugh score at admission. When compared by etiology, patients with a severe infection caused by HAV showed statistically significant higher hemoglobin, INR and ALT levels than HBV patients. There were no significant differences between these two etiologies regarding Child-Pugh score at admission. There is nevertheless a difference regarding the length of stay which is longer for patients who were admitted with severe hepatitis by HBV than for patients with HAV ($p = 0.064$). At discharge, 59.3% of the patients was followed. Among them 78.9% had no symptoms at the last medical visit, 5.3% had asthenia and 15.8% had asthenia combined with myalgia, abdominal pain or jaundice. The chronicalisation percentage was zero. When the analytical data collected at admission were compared with data from the last follow-up visit, there were statistically significant differences in the INR, transaminase, alkaline phosphatase, GGT, total bilirrubin, direct bilirrubin and albumin, showing normalized levels at the end of the follow-up. Regarding other analytical parameters, the differences were not statistically significant ($p = NS$).

Conclusions: 1) Admissions due to acute hepatitis with an infectious etiology are relatively infrequent. 2) The most frequent etiology for acute hepatitis is infection caused by HBV. 3) The length of stay is usually longer for patients with acute hepatitis caused by HBV who paradoxically show at admission lower INR and ALT levels 4) The clinical and analytical evolution is favorable with no chronicalisation phase and without exitus.

A-309
INFECTIVE ENDOCARDITIS IN A DISTRICT HOSPITAL, A POSSIBLE COEXISTENCE

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Objectives: To determine the epidemiological, clinical and microbiological characteristics of patients diagnosed with infectious endocarditis (IE) in the last 2 years in a district hospital. Descript the most common complications and reasons for referral to a tertiary hospital.

Material and method: A descriptive, prospective, observational study of patients with IE admitted between January 2010 and May 2012. Medical records with a primary discharge diagnosis coding of IE were reviewed. We used the modified Duke criteria for diagnosis (definite and probable). We included all patients over 15 years, fulfilling the final diagnosis.

Results: A total of 25 medical records were reviewed. 64% were men with a mean age of 72.4 years (39-93). The most frequent cardiovascular risk factor was hypertension (60%). Fever 64% and the murmur of recent onset 56% were the predominant symptoms and sign clinic, respectively. The 20% of the patients had pacemaker or ICD and 20% prosthetic valve. The microorganisms isolated were S. bovis 12%, Granulicatella adiacens 12%; S. aureus, S. epidermidis, S. viridians, Enterococcus faecalis, Pseudomonas aeruginosa (8% respectively); S. aureus MARSA, Aggregatibacter aphrophilus, S. hominis, Enterococcus sp, Candida albicans (4% respectively). 16% showed negative blood cultures. The findings echocardiographic were: vegetation 68% and 12% abscess. Other such as perforation, aneurysm or fistula were detected in 4% respectively. More frequent complications were heart failure 16%, cardiogenic shock and acute pulmonary edema (12% respectively). Transfer to tertiary hospital was 6 patients (24%) and of these 4 (66.6%) set out from surgical intervention. The main reason for referral were the complications and/or need for emergency surgery. The overall mortality was 16%, mortality in patients referred was 4% (25% overall mortality) and the non-referred was 12% (75% overall mortality).

Conclusions: The proper management of IE in a district hospital is probably, although is essential interdisciplinary work in coordination with a tertiary hospital, given the need for referred in a high percentage of cases. Frequent complications of IE require the immediate transfer a tertiary hospital, however more than 75% of endocarditis can be treated jointly, in a district hospital.

A-313
URINARY INFECTION WITH KLEBSIELLA AND E. COLI BACTERIA: CLINICAL AND ECONOMIC IMPLICATIONS OF BETA-LACTAMASE PRODUCTION

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Objectives: Infection due to extended-spectrum beta-lactamase (ESBL) Escherichia coli (EC) and Klebsiella (K) represents a major concern to healthcare providers implicating dangerous multidrug resistance, longer hospital length-of-stay (LOS) and heavier hospital spending. We analyzed the prevalence of these infections (ESBL positive and negative EC and K urinary tract infections) in patients admitted to an Internal Medicine ward and their impact on clinical outcomes and costs.

Material and method: We conducted a retrospective observational (transversal) study involving 207 patients with positive urinary cultures for EC and K ESBL and non ESBL, for the whole year of 2011. Excluding criteria involved evidence of colonization and harboring of two different specimens in the same sample and in the same hospitalization. Variables related to hospital LOS, antibiotics used and costs involved were assessed.

Results: 158 of all 268 urinary cultures positive to EC or K were included in the study. Forty-one isolates (11 EC and 30 K) were ESBL positive (30% of all 158 isolates). In the group of K infection, ESBL positive isolates had identical hospital LOS (35.5 days) to the ESBL negative group (35.7 days). In the group of EC, the hospital stay was longer in EC ESBL positive (36.0 vs 25.8 days in EC non ESBL – $p < 0.05$). This value is 24 days longer than the all-patient average LOS (11 days) of our department, involving an extra cost of 4.800 € per patient. Around 88% of all ESBL cultures were empirically treated with antibiotics before bacteria isolation and in 28% of all

cases the choice was piperacillin-tazobactam. Susceptibility to carbapenem was universal, and this antibiotic was used in 68% of all isolates. Imipenem contributed with 1.870 € of all hospital expenses per patient.

Conclusions: This study confirmed that EC and K urinary infection were associated with significantly longer hospital LOS and greater hospital costs. These findings have serious implications for antibiotic prescription and economic planning; strategies to control and prevent nosocomial spread are essential and must be implemented.

A-314
THE PARAOXONASAS AS AGENTS INVOLVED IN ACUTE INFECTION AND POTENTIAL MARKERS OF MALIGNANCY

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Objectives: Alterations in circulating levels of enzyme PON1 and lactonase were described in several infectious and inflammatory diseases involving oxidative stress. The purpose is to investigate differences between activity, concentration of PON1 and lactonase activity in patients with or without infection associated with catheter, to analyze the relationship between these findings and pathological background, the severity of the infection/colonization.

Material and method: We performed a prospective study. Were recruited patients with central vascular catheters or bladder catheters during admission in our center, which they had to remove one or more of these devices, debit to the presence of a related infection or catheter- or because it did not require its use. On the day of catheter removal was performed on all participants with a blood analysis, was performed microbiological culture of vascular catheter and sediment and urine culture in patients with urinary catheters which we draw. Anthropometric data were collected, medical history, presence of infection or catheter-related colonization, presence of other acute or chronic infection, treatment at the time of the study, clinical laboratory variables.

Results: We studied 23 patients with central venous catheter, 15 men, 8 women; 7 with gastrointestinal malignancies, 2 with urologic tract cancers; 6 of 23 had a positive tip culture, other cultures were negative. Trend is observed when comparing the statistical significance of the lactonase activity, the average being higher in the group with positive culture. We examined 124 people who we get urinary catheters, 96 men, 28 women; 55 with urinary tract neoplasms, 4 with gastrointestinal malignancies; 19 urine cultures were positive, negative 105. It is trend to statistical significance in terms of data lactonase paraoxonase activity and the values being higher in the group with positive urine culture. Significant differences were observed between patients diagnosed with urinary tract neoplasia and without cancer, with higher PON activity and reduced its concentration in the first subgroup ($p < 0.02$ and $p < 0.05$). Statistical analysis was performed using SPSS version 18.0 (SPSS Inc, Chicago, IL, USA).

Discussion: Infectious diseases are the leading cause of morbidity and mortality worldwide, so the appropriate and timely treatment of them will have a major impact on health indicators. The small number of patients studied and the technical barrier could explain the limited statistic results.

Conclusions: The relationship between catheter infection/colonization with germens and the functions of PON1 and lactonase could have clinical implications, could be a potential therapeutic target. The activity and PON1 concentration could be used as a predictive marker of malignancy of the urinary tract. These determinations could find a curative intent.

A-315
IMPLEMENTATION OF A CLINICAL PATHWAY FOR THE MULTIDISCIPLINARY APPROACH OF PROSTHETIC JOINT INFECTIONS. RESULTS AFTER FIVE YEARS

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Objectives: To analyze the optimization of the multidisciplinary approach to prosthetic joint infections (PJI) of knee and hip in our Centre, after application of a clinical pathway arrived at by consensus between Orthopedic Surgery and Internal Medicine services.

Material and method: Prospective observational cohort of adult patients with PJI diagnosed from January 1, 2007 to December 31, 2011 in our hospital, after implementation of cooperation protocol between Internal Medicine and Orthopedic Surgery. The first objective of the clinical pathway was prophylaxis of infections measure: it was started strict hygiene and antibiotic prophylaxis at the three levels (preoperative, intraoperative and postoperative). Compliance with the diagnostic protocol was considered adequate if were taken at least 4 intraoperative samples prior to starting antibiotic therapy. The suitability of the treatment performed (antibiotics plus type of surgery realized) was adjusted to the indications proposed by the protocol (retention of the prosthesis in the early and hematogenous infections, two-stage replacement in the chronicles, or otherwise assessing more or less aggressive treatment). The PJI were classified according to the classification of Tsukayama et al modified into 4 types: 1) early postsurgical infection or type I (< 1 month after the intervention); 2) late postsurgical infection or type II (> 1 month and < 1 year); 3) hematogenous infection or type III (> 1 year after surgery without symptoms); and 4) positive culture without previous suspicion of infection or type IV. The diagnosis was made by different samples: intraoperative cultures, pus macroscopic with negative cultures or presence of one or more sinus tract communicating with the joint. Analysis peformed using SPSS versión 19.0.

Results: Sixty one patients were included, with a median age of 69 (IQR 39-91) years. Seventy two percent were women. Thirty-three cases (54.1%) were knee prosthetic, with an infection rate of 4.35%; 28 cases (45.9%) were due to infectious complications of hip replacement, with an infection rate of 2. 78%, 77.7% of wich were total and 22.2% partial prosthetic. Adherence to diagnosis protocol was adequate in 61% of cases. When such adherence was analyzed in relationship at the time of implementation of the protocol, we observed a progressive increasing compliance: 47.4% in the first year, and 85% in the fifth year. All cases were treated with antibiotics according to antibiogram. The surgical treatment was adequate according to the protocol in the 79.1%. It also aimed to a gradual adjustment, with a 60% at the beginning and 80% at the last period. Infection rate decreased from 4.8% to 1.7% in PJI of knee and from 6.8% to 1.0% in the PJI of hip, five years later.

Conclusions: After a period of five years was possible to obtain a progressive increase in the number of samples taken prior to the choice of the antibiotic, measured pattern that contributes the success of the management. The surgical procedure was considered adequate at a high percentage since the beginning of the analysis. The application of the clinical pathway resulted in a reduction of infection rate in our cohort of patients. The value of our studio is

the optimization of multidisciplinary management of PJI after the implementation of a clinical pathway, with a common protocol of action inter-services.

A-316
PREVALENCE AND EPIDEMIOLOGICAL CHARACTERISTICS OF EXTENDED SPECTRUM B-LACTAMASE PRODUCING ENTEROBACTERIACEAE URINARY TRACT INFECTIONS

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Objectives: Extended spectrum B-lactamase (ESBL) producing Enterobacteriaceae urinary tract infections (UTI) are associated with long hospital stays, increased costs and limited therapeutic options by conditioning the use of more antibiotics. The objective of the present study is to determine the prevalence of ESBL in our hospital and analyze the epidemiological characteristics of these patients.

Material and method: We performed a descriptive study of all ESBL-producing Enterobacteriaceae urinary tract infections in 2011. Both inpatients and outpatients of all hospital services were included. We excluded pediatric patients. Available patient data from hospital databases was reviewed.

Results: Among 6.162 urine cultures 1600 were positive with 98 ESBL-producing bacteria isolated in 78 patients. The ESBL-producing bacteria prevalence was 6.12%. The proportion of females was higher (64.3%). The mean age was 68.46 ± 17.29 years (range 18-96). The majority of ESBL-producing bacteria were community-acquired (72.4%). The 55.1% were patients admitted to hospital. The microorganisms isolated in order of frequency were: E. coli (84.8%) followed by K. pneumoniae (9.09%), K. oxytoca (3.03%) and E. cloacae, P. mirabilis, P. vulgaris with 1.01% each. Risk factors for ESBL-producing bacteria present in our study group include: urinary catheter (30.4%), neoplasm (25.5%), diabetes mellitus (21.4%) and institutionalized (15.3%). A proportion of 7.1% of these patients were admitted to the intensive care unit. The most common clinical presentation was lower urinary tract infection (61.2%), followed by asymptomatic bacteriuria (16.3%), pyelonephritis and sepsis with 4.1% each. There was a 90 days previous use of antibiotics in 46.9% of cases, being the most common family of antibiotics, penicillin (19.4%), quinolones (15.3%) and cephalosporins (14.3%). Empiric antibiotic therapy was adequate in 22.4% of cases, 28.6% inappropriate and 51% no data available. In 75.5% of cases the infection was resolved, in 13.3% there was a relapse and in 11.2% no available data. The overall 30-day all-cause mortality from the date of culture positivity was 8.2% with a mean age of 71.

Discussion: UTIs by ESBL-producing enterobacteriaceae are a growing problem. These pathogens are resistant to a wide range of beta-lactams, including third generation cephalosporins, which complicates the treatment and limited therapeutic options. A higher prevalence of these pathogens has been reported in community-acquired infections in recent years. In our study, the majority of ESBL-producing bacteria were community-acquired, supporting that there are important reservoirs of these pathogens outside of hospitals. These findings may increase the rate of antibiotic resistance and determine empirical treatment failure.

Conclusions: ESBL producing enterobacteriaceae constitute a significant proportion of microorganisms producing UTI. Moreover, there is an increasing incidence of community-acquired UTIs by ESBL-producing enterobacteria, which is a growing problem. It is necessary to consider this situation for appropriate empirical antibiotic treatment.

A-317
RISK FACTORS FOR MORTALITY IN PATIENTS WITH CLOSTRIDIUM DIFFICILE DISEASE

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Objectives: Clostridium difficile disease (CDD) is increasing in recent years as the population gets older and the use of broad-spectrum antibiotics becomes more frequent. Several risk factors have been thought to be associated with a poor prognosis of this entity. The aim of our study is to analyze different features potentially linked with mortality of CDD.

Material and method: We reviewed 111 computerized clinical histories of patients with positive Clostridium difficile toxin over a period of 2 years (between January 2010 and February 2012) from medical departments of the "Hospital Universitario de La Princesa", Madrid: Accident and Emergency department, Internal Medicine and Infectious Diseases wards. Epidemiologic, prognostic, laboratory and therapeutic features were analyzed with the SPSS 15.0 program.

Results: We identified 88 cases of C. difficile-associated diarrhea, mean age of 72 years (SD ± 18) with a mortality rate at 30 days of 12.5% (11). All-cause mortality in patients who presented with symptoms related to CDD was 7% (p = 0.069). Among patients who died, 9 (81%) had health-care associated disease (p = 0.043), 4 (36%) had active cancer, 5 (45%) had diabetes mellitus (p = 0.04) and 5 (45%) had chronic kidney disease. 63% (7) had received proton-pump inhibitors (p = 0.69) and 63% (7) prior antibiotic therapy (p = 0.20). We identified 46 patients with immunosuppression criteria whose mortality at 30 days was 21% (p = 0.006). All patients treated wih fosfomycin (2) died (p = 0.03). Mortality among patients who had received prior fluoroquinolone treatment (10) was 10% (3) (p = 0.72). There were no deaths among patients on clindamycin (7), glycopeptides (5) or aminoglycosides (5).

Discussion: Mortality in patients with CDD in our sample was higher in the group of immunosuppressed patients, especially in patients with chronic kidney disease, diabetes or active cancer. Health-care associated infection also showed a higher mortality. These data are consistent with results of previous studies. Although CD ribotype more aggressive have been described with certain prior antibiotic treatment, our study did not suggest a relation between prior antibiotic and poor outcome.

Conclusions: We identified health-care associated disease and immunosuppression as factors potentially linked with mortality.

A-318
ANTIRETROVIRAL TREATMENT OPTIMIZATION. IS THERE ROOM FOR IMPROVING EFFICIENCY?

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Objectives: HAART is one of the most cost effective pharmacotherapeutic interventions. Nonetheless, within HAART, there exist numerous combinations with advantages in efficiency. Given the considerable cost of antiretroviral treatment, it is necessary to optimize HAART so that, by maintaining efficacy, costs are minimized. Our objective was to assess whether the implementation of predefined antiretroviral combination strategies

is capable of reducing the bill of the antiretroviral drugs with comparable efficacy (theoretical model).

Material and method: All the antiretroviral drug combinations for each and every one of the patients were analyzed together as well as their costs. Three strategies were proposed. 1) Change from 2 ANRTI +1 PI to PI/r (mono-therapy); 2) Change from TDF + FTC + ATV/r to ABC+3TC+ATV and 3) Change from TDF + FTC + NEV or RTG to ABC + 3TC + NEV or RTG. These strategies are firmly based on clinical trials or on ample experience. It was assumed that efficacy would be the same with the change. Costs were applied following the GESIDA guideline.

Results: 289 patients who had been undergoing treatment in the previous 6 months were analyzed. 53.6% of whom were using NN, whilst 45% were on PI. 77.2% were using TDF and 9.3%, ABC. 87.6% of the patients with NN were being treated with EFV whilst 12.3% with NEV. Out of the patients treated with PI, 45.8% were using DRV/r, 29% ATV/r, and 21.4% LPV/r whilst 3.1% FPV/r. 1.4% of the patients were being treated with Etravirin, 4.1 with Raltegravir and 1.4% with Maraviroc. The actual cost of the antiretroviral treatment was 206.586€ per month. After implementing the above-mentioned strategies, the guidelines were altered in the following manner: No change was effected on 64% (184/289) of patients. 17% (49/289) would shift to monotherapy (strategy 1), 11.8% (34/289) would change from TDF + FTC + ATV/r to ABC + 3TC + ATV (strategy 2) whilst 7.6% (22/289) would shift from TDF + FTC + 1 NN or RTG to ABC + 3TC + NN or RTG (strategy 3). After optimization the cost would be 182.917€. This would mean a monthly saving of 23,669€ or 284,028€ per annum. Being conservative and accepting 25% of the proposed monotherapies and 25% of strategies 2 and 3, the monthly costs would be: 201,325€ whilst the monthly saving would come to 5,261 € or to 63,132 € per annum. The cost of HLA B 5701 at our hospital would be around 1,000 €.

Discussion: In the heat of the current economic crunch it is imperative that optimization of therapeutic intervention strategies, given the same efficacy, be less costly. Strategy 1 has been validated in clinical trials (Monet, Monark), as has been strategy 2 (ARIES). Strategy 3 is often used in clinical practice especially on patients with VL below 100,000 copies, (HEAT). We believe that it is urgent to optimize antiretroviral treatment as we consider these optimization strategies as safe.

Conclusions: Optimizing antiretroviral treatment with boosted PI mono-therapy, by substituting either TDF + FTC + ATV/r for ABC + 3TC + ATV (400 mg) or TDF + FTC for ABC + 3TC, when administered together with either NN or RTG, seems to be an efficient strategy that should be implemented in clinical practice.

A-319
THE PROMETHEUS INDEX AS AN INDICATOR OF HEPATIC FIBROSIS PROGRESSION IN HCV-HIV PATIENTS

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Objectives: HCV infection progressively causes hepatic fibrosis that can, if untreated, lead to cirrhosis or end stage liver disease. Our objective was to characterize hepatic fibrosis in HCV and/or HIV patients by means of elastography at our hospital and also to analyze the variables that are associated with greater fibrosis progression.

Material and method: Design: single cohort prospective study. Hepatic fibrosis was determined by fibroscan at baseline value (t0) and after one year (t1). Other variables such as sex, age, the HCV VL, genotype, polymorphism of the IL28b gen and Prometheus index (PI) were studied. Univariate lineal or logistic regression was used. The change in the fibrosis (t1.t0) served as the dependent variable.

Results: 88 patients, whose elastoraphy were available, were studied. 75 had HCV (83% PCR HCV+) and 15 control group (VIH+HCV-). 62% were genotype 1, 18% genotype 2-3 and 20% genotype 4. 6% had HBsAg. 37% had been treated with PEGIFN + RIB. 90.8% were co-infected by HIV. 47.7% presented F0-F1; 15.9% F2 and 36.3% F3-F4. 34.5% presented IL28b gen CC polymorphism, 60% CT and 5.5% TT. Median PI was 60% (IQR: 30-85%). HCV patients showed greater fibrosis than the control group ($p < 0.0001$). In the HCV subgroup (75 patients) the only variable associated with a greater fibrosis was the Prometheus Index ($p = 0.018$; R^2 quadratic: 0.27; R2 lineal: 0.10) No statistically significant association was found with: VL HCV ($p = 0.36$), Genotype 1-4 versus 2-3 ($p = 0.76$), HBsAg ($p = 0.51$), IL28b gen CC polymorphism ($p = 0.58$).Neither the presence of HIV co-infection ($p = 0.82$), nor previous IFN+RIB treatment($p = 0.29$) was associated with fibrosis progression. After a year, the median increase in fibrosis was -0.1 Kpasc (IQR: -2.9 to +1.5). The only variable linked to the Fibrosis progression was PI: (beta: -0.15; 95%CI: -0.15 a -0.029; $p = 0.006$; R^2: 0.36). For every 10% increase in the PI (baseline), the annual fibrosis progression diminishes by 1.5 Kpas.

Discussion: Given that PI includes HCV VL, HCV genotype, hepatic stiffness and IL28b gen polymorphism, in our study, this index tells us in advance those patients whose fibrosis will worsen within a year. The worse the PI is, the greater the fibrosis progression. This becomes useful when planning more aggressive therapeutic strategies.

Conclusions: HCV presence and a lower Prometheus Index are associated with greater hepatic fibrosis. Moreover, an increase in the Prometheus Index is associated with a lower fibrosis progression in the short term.

A-321
POSTINFECTIOUS GLOMERULONEPHRITIS IN DEVELOPED COUNTRIES AND STAPHYLOCOCCUS

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Objectives: To describe the epidemiological, pathological, microbiological, immunological and clinical data of patients with PIGN (postinfectious glomerulonephritis) in a developed country with free universal access to health care.

Material and method: A retrospective study of biopsies with PIGN performed at our center during the years 2007-2011 with compatible microbiological, clinical and immunological features. We have collected only streptococcal and staphylococcal infectious related PIGN. The diagnosis of infection was performed by infection site cultures or serology on Streptococcus patients.

Results: 4 biopsies were collected supporting PIGN related to Staphylococcus (PIGNSA) with skin infection in 2 patients and joint infection in 2 patients. 2 Streptococcal related PIGN (PIGNSt) were identified, with symptoms of upper respiratory tract in one of them and cellulitis in another. The four PIGNSA patients were male, aged between 42 and 76 years old. The PIGNSt patients were women, 38 and 73 years old. PINGSA showed higher comorbidity with arterial hypertension (3 of 4) and DM (2 of 4). In 3 of 4 PIGNSA immune study could be made in the biopsy, highlighting IgA and C3 deposition, not present in PIGNSt. The infection could not be resolved completely in 3 of 4 patients PIGNSA. The 6 patients had worsening of kidney function, with acute kidney failure in 2 of each group. 2 PIGNSA case presented with anasarca or nephrotic syndrome, acquiring nephrotic range proteinuria in 3 of 4. All six

patients had hematuria. 3 of 4 patients PIGNSA remained with chronic kidney disease and the other one requires hemodialysis, while the 2 PIGNSt recovered kidney function. Kidney impairment was significantly worse in PIGNSA, as creatinine and glomerular filtration showed. Serum albumina was lowered in all four patients PIGNSA, only in one PIGNSt. In the immunological study, 2 of 4 PIGNSA patients had normal complement. Cryoglobulins were positive in 2 PIGNSA and 1 PIGNSt. Serum IgA and IgG were elevated in both PIGNst, while in PIGNSA IgG was positive in 1 and IgA in another. 5 of the 6 patients had active infection.

Discussion: In developing countries PIGN is caused most often by prior infection with nephritogenic strains of group A beta-hemolytic streptococcus. In Europe, as well as in other developed countries, this PIGNSt has become less frequent, as some authors have shown in the last years. PIGNSA incidence have increased, with different underlying pathological mechanisms, risk factors, clinical and serum expression, as well as poor prognosis Our series, dominated by cases of PIGN secondary to chronic infections by staphylococci, show some of the literature reviews results. This subgroup of patients has more risk factors, worse prognosis and different pathological features at biopsy, as well as active infectious disease.

Conclusions: In developed countries the etiology, epidemiology and clinical manifestations of PIGN are changing. In our hospital patients with clinical and pathological features compatible with PIGN were PIGNSA predominant and had more comorbidities, worse kidney function, proteinuria and serum albumina. It should be noted this condition in patients with acute worsening of renal function, hematuria and proteinuria and carry out active treatment causal infection.

A-322
CLINICAL FEATURES IN PATIENTS WITH CENTRAL NERVOUS SYSTEM INFECTION

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Objectives: To investigate the clinical and epidemiological features of patients with central nervous system infections in our department, as well as the need for intensive care and survival rates.

Material and method: We conducted a retrospective, descriptive study. We selected the cases with central nervous system infections admitted to the Department of Infectious Diseases in our tertiary care hospital in Madrid during the period 2008 to 2011. Brain abscess and cerebrospinal fluid shunt infections were excluded. The diagnosis was made based on cerebrospinal fluid findings, along with imaging tests and clinical symptoms.

Results: Fifty five patients (29 males and 26 females with a mean age of 52 years) were included. They were divided in 3 subgroups: a) Twenty four cases (43%) were diagnosed with bacterial meningitis. HIV infection was present in 3 patients, whereas 6 cases had immunosuppressive conditions other than HIV. The cerebrospinal fluid cultures were positive in 70%: 7 cases (29%) of S. pneumoniae were reported. No cases of meningococcal infection were observed. Fever was present in 17 cases (70%) of bacterial meningitis and altered mental status in 14 (58%). The combination of fever, neck stiffness, and headache was observed in 6 (25%). Only 2 patients had seizures. Imaging tests supported the diagnosis in 13 cases (54%). Despite appropriated treatment, 9 patients (37.5%) required admission to an intensive care unit. Three patients died and other 9 had severe sequelae. b) Aseptic meningitis was reported in 19 cases (34%). Four were infected with HIV and 1 patient was receiving immunosuppressive therapy. Only 3 cerebrospinal fluid cultures were positive. Aseptic meningitis of unknown etiology was diagnosed in 16 patients. Headache was the most common symptom and was present in 17 cases (89.4%) of aseptic meningitis, while fever was in 73.6%. The combination of fever, neck stiffness and headache was present in 21%. Three patients debuted with motor deficits and one of them with seizures. Only in 3 cases (15%) the imaging test supported the diagnosis. One patient required admission to an intensive care unit and another one died. c) Twelve cases of encephalitis were reported. 1 case was infected with HIV and another one had underlying immunosuppression. Polymerase chain reaction was positive for herpes simplex virus in 4 cases and cytomegalovirus was reported in 1 patient. All cerebrospinal fluid cultures were negative. The most common clinical manifestations were altered mental status (83%) and fever (58%). Seven patients debuted with motor deficit; no seizures were observed. In 6 cases (50%) the imaging test supported the diagnosis. During the follow-up period, 2 patients (16%) required admission to intensive care, one died and 3 had moderate sequelae.

Discussion: Central nervous system infections may be associated with significant morbidity and mortality, often necessitating emergent interventions. Aseptic meningitis of viral etiology is the most common form of meningitis. Despite improvements in primary prevention level with the widespread use of vaccines and chemoprophylaxis, central nervous system infections remain a common disease world-wide and involve high mortality rates with significant neurological sequelae, especially in acute bacterial meningitis, as in our series. In recent years, the increase in immunosuppressive therapy and HIV infections has changed the epidemiology and clinical manifestations concerning central nervous system infections.

Conclusions: Based on our data, acute bacterial meningitis is the most common and severe CNS infection, with high rate of ICU admissions and neurological long-term effects. Early empiric therapy is crucial to improve the prognosis in these patients.

A-323
A RETROSPECTIVE SURVEY OF ACUTE Q FEVER IN GRAN CANARIA (2005-2011)

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Objectives: To describe the clinic and epidemiological characteristics of Q fever in the north of Gran Canaria, and to study the relationship between these characteristics and the different forms of presentation.

Material and method: All diagnosed cases of acute Q fever during the last seven years were analyzed. Epidemiological data, clinical characteristics, biochemical, serological and radiological results, duration of symptoms before diagnosis, need for hospital admission, clinical presentation, antibiotic treatment received and evolution were collected. Q fever diagnosis was established by seroconversion or increase of at least four times the anti-phase II IgG antibodies titers against Coxiella burnetii by indirect immunofluorescence (> 1/200) or by complement fixation with cutoff values of > 1/32, with clinically compatible symptoms. The major presentation forms were classified as pneumonia, hepatitis, self-limited-flu-like syndrome and other manifestations. A Chi square test and a relative risk analysis were performed to study the relationships between the different forms of presentation and epidemiological characteristics of the sample.

Results: Q fever was diagnosed in 124 patients, being 76.6% men. The mean age was 48.3 years (SD 14.5), with a range from 17 to 86 years old. 49.2% of the patients were from rural areas, and at least

32 patients (25.8%) referred contact with animals. The most frequent comorbidities were heart disease (19.4%), diabetes (15.3%), active smoking (37.9%) and alcohol intake (21.8%). The annual incidence rate of Q fever was 17.7, taking place 44.4% of the cases in spring. The most common symptoms were averaged 15.7 days of fever (84.7%), headache (30.6%), respiratory symptoms (28.2) and myalgias (21.8%). Biochemical characteristic findings were prolonged aPTT (> 37 seconds) in 65.7%, increase in transaminase levels (AST > 38 or ALT > 41 U/l) in 71.9%, lactate dehydrogenated levels > 250 U/L in 84.6% and erythrocyte sedimentation rate > 12 mm/h in 79.4% of the patients. Self-limited-flu-like syndrome with light liver enzyme elevation was the most frequent form of presentation (51.6%), followed by hepatitis (26.6%) and pneumonia (15.3%). Antibiotics were prescribed in 63.7% of the patients during a mean of 13.5 days, receiving doxycycline 59.5% of them. 36.3% of the patients required admission and three of them died secondary to Q fever infection. Significant associations between patients with 38-48 years old and hepatitis (p = 0.024; RR = 1.95), and more than 57 year-old patients and pneumonia (p = 0.007; RR = 2.95) were found. Pneumonia was also associated with diagnosis in November-February period (p = 0.003; RR = 1.35), bad prognosis (p = 0.012; RR = 11.05) and need for admission (p = 0.001; RR = 2.50). Self-limited-flu-like syndrome was negatively associated with need for admission (p = 0.048; RR = 0.58).

Discussion: We agree with other surveys that the typical Q fever infected patient is a middle-aged man with fever of intermediate duration and light hepatic enzyme elevation, in spring, with favorable evolution. Therefore it often goes unnoticed since the patient doesn't visit the doctor because clinical signs of Q fever are often subclinical or extremely mild.

Conclusions: We highlight the high prevalence of Q fever observed in our series, usually in the clinical form of self-limited-flu-like syndrome. It should be noticed that the pneumonic form of presentation is associated with hospital admission, advanced age patients, earliest month's appearance and worse outcome.

A-325
EXPERIENCE IN THERAPEUTIC DRUG MONITORING OF ATAZANAVIR IN HIV INFECTED INDIVIDUALS

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Objectives: To evaluate the effect of the therapeutic drug monitoring (TDM) of atazanavir (ATV) in the virological suppression of the replication of the HIV, in the immune response of the CD4 count and in the presence of adverse reactions related to ATV in patients infected by the HIV.

Material and method: An observational retrospective study was conducted in the department of Infectious Diseases of the University Hospital of Salamanca. Patients considered were those: older than 18 years, infected by HIV, under antiretroviral therapy with ATV boosted or not with ritonavir (RTV) and with TDM of ATV. The Data were collected from 2005 to July 2011. The informs of the TDM and of the clinical records were reviewed. According to the plasma concentrations of ATV the following groups were considered: infratherapeutic, if they were under 0.15 mg/L, and toxic, if they were over 0.85 mg/L. It was defined as virological failure the detection of VC in plasma after 24 weeks of antiretroviral treatment or the detection of VC in two consecutive measurements after being undetectable (< 50 copies/mL).

Results: Our series included 55 cases whose epidemiological characteristics are in Men 43 (78.2), Age (years) 47.3 (8.5). The median of the plasma triglycerides concentrations in the groups of infratherapeutic, therapeutic and toxic levels of ATV were 141.5 mg/dL (P25-75: 89,6-256), 187.5 mg/dL (P25-75: 138-288) and 173 mg/dL (P25-75: 126.5-215), respectively. When ATV was boosted with RTV, the levels of triglycerides were higher than in the cases where ATV was not boosted. Patients with therapeutic and toxic levels of ATV showed an increase in the values of bilirubin of 2.3 mg/dL and 2.8 mg/dL, respectively; after dosing adjustment they decreased to 2.2 mg/dL and 2.5 mg/dL. In the group of infratherapeutic levels of ATV, the average of the CD4 count increased from 362 cells/mL (+77) to 480 cells/mL (+99) after dosing adjustment. The number of patients with undetectable VC increased in the infratherapeutic and toxic groups after dosing adjustment in 3 (37.5%) and 1 (50%) patients, respectively. This meant avoiding a possible virological failure in 4 cases.

Discussion: The debate about the clinical usefulness of the TDM of the antiretroviral therapy is reflected in the contradictory recommendations in the treatment guidelines for the HIV used all over the world. The British HIV Association support the usage of TDM in specific situations. Guidelines in the United States support TDM without providing any specific recommendation. WHO guideline do not recommend its use in environments with limited resources. In this context our study back up the current evidence about the clinical utility of the TDM of the ATV in the prevention of possible virological failures. Current literature show that ATV is not associated to a significant increase in triglyceride levels. However, in our series hypertriglyceridemia was one of the adverse effects present in the groups of toxic and therapeutic levels of ATV. This could be related to the concurrent use of other antiretroviral drugs that produce disturbances in the lipid metabolism such as nucleosid analogues.

Conclusions: The TDM of the ATV proved to be a useful tool to guarantee that ATV plasma concentrations are in a therapeutic range, eluding any possible virological failure. In our series it was effective in properly avoiding a 7.2% (4/55) of the virological failures, belonging mostly of them to the infratherapeutic group 5.4% (3/55). The main adverse effects of TDM of ATV were hyperbilirubinemia and hypertriglyceridemia. They were more important when the treatment with ATV was boostered with RTV and when plasma levels of ATV were in toxic range.

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PROSPECTIVE AND DESCRIPTIVE STUDY OF FUNGAL ENDOCARDITIS IN THE UNIVERSITY HOSPITAL MARQUES DE VALDECILLA (CANTABRIA-SPAIN)

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Objectives: Endocardial involvement in fungal disease is uncommon. However, it is one of the most serious manifestations of fungal systemic infections, remaining with high rates of morbility and mortality even though performing cardiac surgery. The aim of this study is to describe the clinical and epidemiological characteristics of this cohort of patients diagnosed with fungal endocarditis (FE).

Material and method: Prospective cohort study of all patients diagnosed with FE from 1st of January of 2008 to 30st of April of 2012 in the University Hospital Marqués de Valdecilla (Cantabria-Spain). Data about epidemiological characteristics of patients, surgery and complications in the postoperative period were collected.

Results: From the total of 205 cases of infective endocarditis, 8 (3.9%) were diagnosed with FE: 5 (62.5%) males, with a mean age of

62.7 (SD 19.5) years. Six patients (75%) had a Charlson index = 4. ASA index was > 4 in all cases. Five (62.5%) were receiving immunosuppressive therapies: 2 (25%) were recipients of bilateral lung transplantations, 2 (25%) had metastatic cancers (lung and colon) and 1(12.5%) had rheumatoid arthritis under treatment. One (12.5%) had previous infective endocarditis due to S. bovis. Two (25%) cases were on prosthetic valve and one (12.5%) over pacemaker. Four (50%) of the patients had FE over mitral, three (37.5%) over aortic and 1(12.5%) over tricuspid valve. Embolic symptoms were found in 6 (75%) patients, existing fever in 5(62.5%) patients. Etiology was: C. albicans in 62.5% cases, and C. parapsilosis, S. prolificans and A. fumigatus in 12.5% respectively. The recipients of lung transplantation develop non-Candida FE. Surgery was underwent in 62.5% patients. The average hospital stay was 35.4 (32.3) days. Mortality in the group of surgical patients (5 patients) was 50%, and 66.6% in the group of suppressive therapy (3 patients), and this occurred at 28 (21) days and 64 (12) days respectively.

Discussion: Fungal endocarditis (FE) is an uncommon occurrence. Previously published series reported fungi as causes of infective endocarditis in 1.3 to 6% of the cases. Advances in medical and surgical therapies, including reconstructive cardiovascular surgery, implantation of intracardiac devices, prolonged use of intravenous catheters, exposure to multiple broad-spectrum antibiotics, and immunosupression have been implicated as causes of the perceived increase in the number of cases of fungemia and FE seen during last decades. FE has been characterized by excessive mortality (> 50%) and morbidity, regardless of treatment. A combined medical-surgical approach seems to offer an improved outcome. However, there are no clinical trials to support or refuse this opinion, largely because the rarity of the syndrome.

Conclusions: Fungal endocarditis is a rare cause of infective endocarditis (3.9% in our series), mainly due to Candida albicans (62.5%). All patients are in a high-risk group (Charlson = 4 in 75% of the patients). Immunosuppression was present in 62.5% patients. No-Candida FE was only found in receptors of lung transplantation. Mortality remains high regardless of treatment (50% in surgical patients and 66% in medical suppressive treatment).

A-327
MALARIA IN HIV-INFECTED PATIENTS IN THE HOSPITAL OF FUENLABRADA

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Objectives: HIV/AIDS and malaria have a major impact on the socio-economic development of Africa. It is currently considered a re-emerging disease, with great social and health impact. In our hospital, we declare around the 12% of all malaria cases reported annually in the Community of Madrid. Malaria plays a crucial physiopathogenic roll in HIV-infected patients by decreasing the number of CD4 and transiently increasing viral load, especially in patients with fever. It also represents an increased risk of both sexual and vertical transmission. HIV destroys CD4 cells, the same immune cells, critical to the development of immunity to malaria. Our objective is to describe the epidemiological, clinical and laboratory data of HIV-infected patients with malaria.

Material and method: A prospective descriptive study of cases of malaria diagnosed in HIV-infected patients since the opening of the Hospital Universitario de Fuenlabrada (HUFLR) until August 2011. We analyzed the epidemiological, clinical, and laboratory outcomes.

Results: There were 129 cases of malaria diagnosed during the 8 years that were analyzed in the Universitary Hospital of Fuenlabrada, there is an average of 16.12 cases/year. Among the cases analyzed there were 7 cases detected of patients with HIV infection (5.4%) of the 129. Only three of the seven cases were HIV positive, were known previously, the rest were diagnosed during the study of malaria. The most severe case occurred in a previously known HIV with a very immunosuppressed stage (C-3) with high parasitemia, it coursed with cerebral malaria and multiorgan failure. In our series, we found a high percentage of HIV pregnant women, a particularly vulnerable group. HIV screening has not been performed systematically in all patients (HIV test was performed in 89/129 cases of malaria, 68.9%). In most cases there wasn't a correct follow-up.

Conclusions: When malaria is diagnosed, it is essential the active screening for HIV infection and other transmissible diseases (hepatitis, TB) during hospitalization. We have found that even patients with a strong indication for malaria prophylaxis don't do it correctly when making visits to their countries of origin. Our series showed an excellent outcome after treatment with HAART and antimalarials.

A-328
HOSPITAL ADMISSIONS OF HIV-INFECTED PATIENTS TO AN INFECTIOUS DISEASE UNIT. A SEVEN-YEAR STUDY

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Objectives: To assess the evolution of the admission of HIV-infected patients during the past 7 years in an infectious disease unit (IDU) of a reference hospital.

Material and method: We analyzed data on hospital activity in the Infectious Disease Unit based on Diagnostic Related Groups (DRGs) during the period 2005-2011. We analyzed the evolution of the admission proportion of patients diagnosed with HIV with respect to the total number of admissions, taking into account gender, average age, average length of stay, proportion of hospital stays compared to the total ones in IDUs, and total mortality.

Results: In these 7 years there have been a total of 967 admissions. The number of such admissions has progressive and proportionally decreased from 2005 to 2011 (43.3% and 25.0% respectively). Both sex (3:1 male/female ratio) and mean age (40.30 years) have remained stable. The proportion of the total of consumed stays has declined as well: 49.68% in 2005 and 28.33% in 2011. Mortality has fallen from 5.95% in 2005 to 3.48% in 2011 but has been oscillating throughout these seven years.

Conclusions: There has been a clear decline in admissions and hospital stays of patients infected with HIV. This constitutes an opportunity for IDUs to address patients with infectious diseases other than those related to HIV.

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EPIDEMIOLOGIC, CLINICAL CHARACTERISTICS, COMPLICATIONS AND TREATMENT ASSOCIATED WITH CLOSTRIDIUM DIFFICILE INFECTION AMONG HOSPITALISED PATIENTS

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Objectives: To describe the epidemiologic and clinical characteristics, complications and treatment of patients with Clostridium difficile infection (CDI) among hospitalised patients.

Material and method: A descriptive observational historic study was conducted in Virgen Concha Hospital among patients with CDI. Cases were detected by enzyme-linked immunoassay for A and B toxins of Clostridium difficile in stool of inpatients for a period of two years (2010-2011). Variables obtained were age, gender, inpatients days until diagnostic suspicion, relevant clinical signs and symptoms, complications, microbiological, endoscopic, histological and laboratory findings, as well as antimicrobials, chemoterapic drugs and proton pump inhibitors exposure before infection onset, and the treatment used for CDI. Community-associated infection was considered in patients without hospitalization within 12 weeks of onset or who were identified with CDI within 48 hour of admission. Healthcare-associated infection was considered in patients who had hospitalization within 12 weeks of onset or infection detected after 48 hours of admission. Long-term facility associated infection was considered in patients who lived in residential care homes for the elderly. In cases where some antibiotics were used before CDI only those with the most long-term use and related in time with CDI.

Results: From 44 cases with CDI, 27(61.4%) were male and 17 (38.4%) female, with a mean age of 75 ± 16.9 years. Regarding the origin of infection 27 (61.4%) cases were community-associated and 12 (27.3%) healthcare-associated and 5 (11.4%) long-term facility associated. The prevalent clinical profile was diarrhea with 40 cases (90%) abdominal pain 21 (47%) and fever 12 (27%). From 9 (20.5%) cases who had a colonoscopy only two of them were consistent with pseudomembranous colitis. Regarding to laboratory test in 43 cases were done blood count and in 38 cases albumin, 23 (53.5%) of them had leukocytosis (15,160 ± 2,891/ mm^3) or leukopenia (3,662 ± 212.8/mm^3) and 22 (57.9%) hypoalbuminemia (3.2 ± 0.65 mg/dl) respectively. The first complication was hypotension with 6 cases (13.6%) and the second ileus-abdominal distension 3 (6.8%). There were 2 exitus associated to abdominal distension, renal failure at hospital admission and hypoalbuminemia. In 29 patients (65.9%) administration of antibiotics was established before the CDI, most frequently used antibiotics were amoxicillin-clavulanate 7 (24.1%), ceftriaxone 7 (24.1%) and imipenem 6 (20.7%). The usage of proton pump inhibitors was present in 37 cases (84%) with a median of 7 days (P25-75-2 and 16) with 7 habitual users. The most frequent initial treatment for CDI was metronidazole with 41 (83.3%) cases, and the most frequent administration route was oral 33 (78.6%) and the mean of duration 10.1 ± 4 days (there were two cases with no treatment registrated).

Discussion: A high prevalence of CDI community-associated was found 61.4% (27), although nowadays this prevalence is not well characterized, community incidence seems to be increasing in Spain. This high prevalence may be related to most existing elderly population, greater use of antibiotics and dissemination of carriers from the hospital. Our series originally consisted of 74 cases. The number of stool cultures for common bacteria were negative. Pathological studies were carried out 5 of which none was compatible with ICD, although the clinical and the presence of toxins in feces were compatible.

Conclusions: The most prevalent epidemiologic characteristics: male with a mean age of 75 years being the main origin of the infection the community. Previous use of antibiotics: the most prevalent amoxicillin-clavulanate, ceftriaxone and imipenem. Proton pump inhibitors were used in more than 80%. The antibiotic therapy for CDI most used was oral metronidazole followed by oral vancomycin.

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MORTALITY PREDICTORS IN THE EXTENDED-SPECTRUM BETA-LACTAMASES K. PNEUMONIAE BACTERAEMIA

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Objectives: Isolation of extended-spectrum beta-lactamases (ESBL) Klebsiella pneumoniae (EKP) is a new and growing problem in Spain. Little is known about factors associated with mortality. To evaluate predictors of mortality in (ESBL) Klebsiella pneumoniae (EKP) bacteraemia we designed this study.

Material and method: We evaluated all patients attended in our hospital during 2011 with bacteraemic Klebsiella pneumoniae infection. Mortality was assessed at the first month. We evaluated clinical and epidemiological variables associated with mortality, including ESBL status. Results are expressed as average (SD) or percentage. Independent predictors of mortality of EKP bacteraemia were evaluated by multivariate logistic regression.

Results: A total of 46 patients were included; mean age 75.5 (2.1) years and 39.1% females. EKP was isolated in 15 patients (32.6%). Mortality was 26.7% in both groups (presence or absence of ESBL). Patients who died were older (83.4 [11.0] vs 73.2 [14.4] years, p = 0.031), more frequently male (37.0% vs 11.1% p = 0.08), dependent (62.5% vs 11.1%, p = 0.009), living in nursing home (50.0% vs 16.1%, p = 0.029) suffered dementia (53.3% vs 13.3%, p = 0.01) presented fever more days (0.9 [0.7] vs 1.6 [0.9]; p = 0.032) and received antibiotic treatment less time, (4.2 [4.8] vs 15.3 [4.7]; p < 0.001; but received adequate empirical antibiotic treatment less frequently 16.2% vs 66.7% p = 0.02. Time from bacterial isolation to death was 20.7 [20.7] vs 6.7 [7.5] days; p > 0.05.

Conclusions: Mortality in Klebsiella pneumoniae bacteraemia with or without ESBL was the same and it was very high. Inadequate empirical treatment, to live in a nursing home or to be dependent were factors associated with mortality.

Patients with multimorbility and elderly patients

EA-1
EVALUATION OF THE NUTRITIONAL CONDITION USING THE MNA TEST (MINI NUTRITIONAL ASSESSMENT) IN A COHORT OF 127 PATIENTS IN A MEDIUM - LARGE STAY UNIT OF A GERIATRIC HOSPITAL - MLSUGH

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Objectives: The MNA is a method validated and relatively simple to use, that help to evaluate the nutritional condition in the hospitalized patients, by means of 18 questions divided in four blocks. The punctuation obtained allows to classify the patients in

normal nutritional condition (> 23.5 points), risk of malnutrition (17 to 23.5 points) and malnutrition (< 17 points). The objective is to determine the prevalence of malnutrition in patients attended in a MLSUGH at the moment of admission using the MNA test, valuing the correlation of the test with parameters anthropometric and analytical (albumin and prealbumin) as well as with the presence of pressure ulcers.

Material and method: A transversal descriptive study including a total of 127 older adults patients (> 65 years) admitted in a MLSUGH from January until March of 2011. In all patients a MNA test, an anthropometric and biochemical evaluation has been done. It has been realized the statistical descriptive and comparative analysis by means of the chi-squared test and t-student test with the program SPSSPC v 15 for Windows.

Results: Of the total of 127 patients: 74 (58.3%) were women and the mean age was 77.1 ± 10.4 years. 112 patients (87.5%) came from acute care hospital (31.3% were patients subsequent to major surgery) and 15 (12.5%) from primary care center. 12 patients (9.4%) had pressure ulcers. The average stay was 47 ± 26.4 days. The destination was to home in 87 (68%) patients while 15 (11.7%) were death and 20 (15.6%) are continue hospitalized. However 3 (2.3%) patients have returned to a social residence and other 3 (2.3%) to acute care hospital. According to the MNA test 37 (28.9%) patients presented malnutrition (62.2% being male/p = 0.009) and 79 (61.7%) were at risk. When correlating the three categories of MNA test with the presence of pressure ulcers, anthropometric and laboratory parameters, we observed that 18.9% of the malnutrition group have pressure ulcers, body mass index in the same group is 22.9 ± 5.9 kg/m^2 and the difference between habitual weight and current weight is 8.7 ± 8.1 kg (significant results between groups: p = 0.04, p = 0.005 and p = 0.01 respectively). Statistical trend was seen in albumin between groups (p = 0.08). It has shown a statistically significant relationship between the presence of pressure ulcers with low albumin concentration (p = 0.01) and the weight difference (p = 0.03), while statistical trend was seen in age (p = 0.06). Of the 15 patients who died 60% (9 patients) had malnutrition while the other 40% (6 patients) were at risk of malnutrition.

Discussion: O. Izaola et al in their study of 145 patients (An Med Intern, 2005) had found that the malnutrition prevalence was 68.2% and risk of malnutrition 29.6% (in our study we found a predominance of risk of malnutrition 61.7% vs 28.9% with predominance of males 62.2%). Vellas et al (Nutr Health Aging J, 2006) showed that with MNA scoring sensitivity was found to be 96% and predictive value 97% as well as the MNA scale was also found to be predictive of death (11.7% in our series vs 5.7% observed in the analysis of 106 patients conducted by Sanchez M et al (Rev Clin Esp, 2010). We found a relationship between malnutrition and pressure soars (p = 0.01) result similar to that found by Pardo C et al (Nutr Hosp, 2011).

Conclusions: It is possible to identify older adults at risk for malnutrition (condition detected frequently in our hospital) by MNA score and can be easily corrected by nutritional intervention that can prevent complications.

EA-2
ELDERLY PATIENTS OVER 90 YEARS OLD ADMITTED TO THE DEPARTMENTS OF INTERNAL MEDICINE (IM)

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Objectives: The population aged over 90 years of age constitutes 0.6% of the total of people living in our country but generates 6% of admittances to IM Departments. Our hypothesis is that this "very elderly" population (over 90 years of age) is responsible for some of the overall results of health-care activities in Internal Medicine (IM), as well as mortality and the consumption of resources. The aim of this study is to analysed some of these parameters.

Material and method: Patients admitted to the departments of IM in Spain between the years 2005 to 2007 were analysed from the data obtained from the MBDS (Minimum Basic Data Set), in which administrative and clinical data were collected from all patients admitted to the public and private hospitals in Spain. Patients over 90 years old were considered "very elderly". Urine infection, the appearance of decubitus ulcers, side effects related with the medication, thromboembolic disease during admission, acute confusional syndrome and hip fracture of admitted patients were defined as intrahospital complications. Clinical and demographic data, as well as the complications rate, were compared among elderly individuals (65-90) and very elderly (> 90).

Results: During the analysed period, 1,567,659 individuals were admitted to IM, of which 90.079 (5.7%) were over 90 years old, 67% of these were women. The "very elderly" patients had a greater complications rate (OR 1.35 95%CI 1.32-1.37), and twice the risk of death (OR 2.28 95%CI 2.24-2.32), than the rest of the elderly people. The risk of having a decubitus ulcer (OR1.73 95%CI 1.68-1.79), a urine infection (OR 1.38 95%CI 1.35-1.41), acute confusional syndrome (OR 1.58 95%CI 1.52-1.65) or a hip fracture (OR 2.05 95%CI1.70-2.49) was clearly greater in the very elderly people.

Discussion: To sum up, in this study we have demonstrated that a very high percentage of the "very elderly" patients admitted to Spanish hospitals are attended to in the departments of IM. Our population consisted of patients with high mortality and high risk of complications during admission, some of which were preventable. Given the magnitude of the study, we think that the photography of the patients is quite reliable, despite of the weakness that the information is based on a clinical-administrative database. The increase that this group of patients has experienced in recent years, that will no doubt continue increasing given the current demographic tendency, obliges us to keep investigating this study and the specific measures aimed at improving the management of these patients in close collaboration with geriatricians and other professionals in the health industry.

Conclusions: One in every 20 patients admitted in IM are very elderly. These patients have more intrahospital complications, a much higher death rate and a greater consumption of resources.

EA-3
ADMISSIONS OF CENTENARIAN PATIENTS: OUR CURRENT SITUATION

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Objectives: The "oldest old", those aged 85 years or more, are an important segment of present society. A special subgroup of the oldest old are the centenarian, patients more than 100 years. The objective of our study is to know the current situation of the centenarian patients admitted to Complejo Asistencial de Zamora (CAZA) during 2011.

Material and method: Observational, descriptive, retrospective study. We ask for the Admission Service the information about patients aged over 100 years that were admitted to CAZA (Complejo Asistencial de Zamora) in 2011. We reviewed the records and we analysed the next data: age, sex, number of admissions within the study period. type of admission (elective or urgency), admitting service, length of stay, main diagnoses and survival.

Results: There were 25 centenarian patients admitted a total of 29 times during the study period. All of them were admitted from

Emergency Service (none in an elective form). There were 9 men (36%) and 16 women (64%). Most patients were admitted only once during the study period, two patients were admitted twice and one patient was admitted three times. The mean age was 101. 4 years. 11 patients were 100 years (7 women and 4 men); 7 were 101 years (5 women), 4 were 102 years (2 men), 1 woman were 103, 1 man were 105 years, 1 woman were 106 years and 1 woman were 107 years. The mean length of stay was 8.7 days. There were 5 deaths (20%). The admitting service was medical for 20 patients (80%); orthopaedic for 2 patients (8%) and general surgical for 3 patients (12%). The main diagnoses were: respiratory infection in 7 patients, stroke in 3 patients, heart failure in 3, urinary infection in 2, hip fracture in 2, heart attack in 2, sepsis in 2. Each of the following diagnoses occurred in 1 patient: gastrointestinal bleeding, gangrene, incarcerated hernia, diverticulitis, acute renal failure, head trauma, heart block, dehydration.

Discussion: Centenarian admitted to our Health-care Complex in 2011 were predominantly women, had a favorable prognosis without high hospital mortality rates and with a variety of diagnoses. The type of admission was never elective. The majority of patients were admitted to medical services. Only two centenarians had suffered a hip fracture. The results of our study are similar to the data of previous studies except for the fact that hip fracture wasn´t the most common reason for hospitalization in our patients.

Conclusions: 1. Nowadays, admissions of centenarian patients isn't unusual. 2. There are more women than men. 3. They are admitting mainly in medical services. 4. Most of them are discharged.

EA-4
FRAILTY IN THE OLDEST OLD: PREVALENCE AND ASSOCIATED FACTORS

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Objectives: To describe frailty prevalence and to study the factors associated with frailty syndrome in the oldest old.

Material and method: Design: cross-sectional study, nested within a randomized clinic trial. Participants: two hundred and seventy-three 86-year-olds registered at seven primary healthcare centres. Measurements: Data on functional status, comorbidities, social risk and participation in the intervention to prevent falls and malnutrition and blood tests were compiled. Subjects were assessed using the phenotypic definition of frailty and a comparative analysis was performed between patients with and without frailty (defined as non-frail, pre-frail and frail).

Results: Fifty-six subjects were defined as frail (20.5%), 148 were pre-frail (54.2%) and 69 non-frail (25.3%). The model with the best fit according to the Akaike information criterion (AIC) indicated that factors significantly associated with frailty were functional status (OR: 4.92; 95%CI 2.54-9.53), nutritional risk (OR: 2.33; 95%CI 1.26-4.32), drugs taken (OR: 1.17; 95%CI 1.09-1.26), Gijon test (OR: 1.13; 95%CI 1.01-1.26), CD4-lymphocytes (OR: 1.03; 95%CI 1.01-1.06). Participation in the intervention emerged as a protective factor associated to frailty (OR: 0.48; 95%CI 0.29-0.80).

Conclusions: The present study found a high prevalence of frailty in the oldest old, and the main morbidities associated with frailty were decline in functional status and nutritional risk. Individual target intervention was a protective factor. These findings may encourage clinicians to initiate measures for preventing and treating frailty at an earlier date.

EA-5
PREVALENCE OF E. COLI INFECTIONS IN A CHRONIC PATIENTS HOSPITAL

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Objectives: Escherichia coli (EC) is a common etiologic agent of urinary tract infections, bloodstream infections and acute diarrhea, and is frequently involved in nosocomial and community bacteremia. Moreover, the existence of beta-lactamase producing strains (ESBL) is a major problem because of its high morbidity and mortality. The objective is to determine the prevalence of infection by EC in our hospital with special emphasis on the antibiotic resistance profile.

Material and method: We have reviewed the medical records of patients with positive cultures for EC in the period January to December 2011. The Hospital Virgen de la Torre is a 100-bed hospital for chronic patients with acute exacerbation. We have reviewed epidemiological, clinical, microbiological and treatment items.

Results: Patients admitted 2473, cultures (+) for EC 49c (1.98%), 38 females (75.51%) 11 males (24.49%). Mean age 85.06 (R: 61-99). Previous pathology: 1. Hypertension 36c (73.4%) 30 f (83.3%) 6 m (16.7%). 2. Diabetes 23c (46.9%) 19f (82.6) 4m (17.4%). 3. Dyslipidemia 20c (40.8%) 17f (85%) 3m (15%). 4. Heart disease 18c (36.7%) 13f (72.2%) 5m (27.8%). 5. COPD 5c (10.20%) 5m (100%). Admission diagnosis: 1. Urinary tract infection 34c (69.3%). 2. Respiratory Infection 8c (16.3%). 3. Febrile Syndrome 3c (6.1%). 4. Acute Gastroenteritis 2c (4.1%). 5. Infected pressure ulcers 2c (4.1%). 6. Pancreatitis 1c (2%). Cultures (+) for EC: 1. Urine 44c (89.8%) 36f (81.8%) 8m (18.2%). 2. Blood culture 4c (8.2%) 4f (100%). 3. Sputum 4c (8.2%) 3m (75%) 1f (25%). 4. Pressure ulcer 2c (4.1%) 1f (50%) 1m (50%). Acute phase reactants: 1. Hyperfibrinogenemia 41c (83.7%) 33f (80.5%) 8m (19.5%). 2. > C-reactive protein 40c (81.6%) 29f (72.5%) 11m (27.5%). 3. - leukocytosis 23c (47%) 19f (82.6%) 4m (17.4%). 4. Thrombocytosis 7c (14.3%) 5f (71.4%) 2m (28.6%). Antibiotic resistance: 1. Ampicillin 37c (75.5%). 2. Quinolones 23c (46.9%). 3. Cotrimoxazole 18c (36.7%). 4. Aminoglycosides 12c (24.5%). 5. Cephalosporins 10c (20.4%). 6. Aztreonam 9c (18.4%). 7. Amoxi/clavulanic 6c (12.2%). 8. Fosfomycin 3c (6.1%). 9. Nitrofurantoin 1c (2.%). 10. Ureidopenicillin 1c (2.%). None were resistant to carbapenems and tetracyclines. EC ESBL infection 9c (18.3%). Treatment given: 1. Monotherapy 23c (46.9%). 2. Combined therapy 26c (53.1%). Quinolones 18c (36.7%), fosfomycin 12c (24.5%), amoxi/clavu 12c (24.5%), cephalosporins 11c (22.4%), carbapenems 10c (20.4%), cotrimoxazole 4c (8.2%), aminoglycosides 3c (6.1%). The EC ESBL infection received combination therapy with carbapenems and a second antibiotic. Average stay 11.043 days. There wasn't mortality related to EC.

Discussion: EC infection is more prevalent in females in relationship with urinary tract infection. It is accompanied by significant elevation of acute phase reactants, especially C-reactive protein and fibrinogen. We have observed a high rate of resistance to ampicillin, quinolones and cotrimoxazole. However, carbapenems, tetracyclines, ureidopenicillins, nitrofurantoin, fosfomycin and amoxi/clavulanate has a good sensitivity profile. Highlights 9 cases of EC ESBL infection (18.36%), higher than that reported in most of Europe (1-5%) and Spain (5-10%), and similar to Ireland, Italy and Portugal (10-25%). This high prevalence is probably related to the type of patients (chronic and institutionalized patients with multiple hospital admissions and antibiotic treatments).

Conclusions: 1. The urinary tract is the most prevalent location of infection with EC. 2. EC infection is associated with significant elevation of acute phase reactants in 75% of cases. 3. EC has a high

rate of resistance to ampicillin and quinolones, it should be avoided in empirical treatment of urinary tract infections with a high suspicion of EC implication. Fosfomycin/nitrofurantoin for uncomplicated infections and amoxi-clavul/ureidopen/carbapenen for infections with sepsis have a good profile of sensitivity. 4. EC ESBL infection is highly prevalent in our series. However, we have had good response to combination therapy with carbapenems and a second antibiotic chosen by antibiogram. We had no mortality associated with EC infection.

EA-6
ASSISTANCE AT THE END OF LIFE: AN INESCAPABLE PURPOSE OF MEDICINE

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Objectives: To study the activity of a palliative care unit of average complexity, integrated over the internal medicine service.

Material and method: A descriptive study. Registration of the main demographic and clinical variables of patients admitted during 2011. Comorbidity criteria according to Gª Morillo et al. Assessment of caregiver burden by reduced Zarit scale. Basic statistics of centralization and dispersion for quantitative variables, distribution of frequencies for qualitative variables. Comparison of means: t student, proportions: χ^2 Pearson. Level of significance: $p < 0.05$.

Results: 298 patients were admitted. A 58.4% male, mean age 76 years (SD 11). Average stay 9.4 days (SD 9.2, range 1-60). Media PPS 32%, 23 Barthel, Pfeiffer 4. Enter from primary care (ESAD) 43%, from the emergency 18%, 25.4% from acute Hospital. Patients with comorbidities were 47%. 90% were cancer patients. 68% admitted for symptom control, 24% agony. Main symptoms: dyspnea (49%), cachexia-anorexia (33%), pain (28%), delirium (24%). The primary caregiver was the spouse in 54%, other relatives, 32%, 11% lived alone and 3% in residence. Caregiver burden was detected in 67.5% of cases. Patient knowledge about the diagnosis/prognosis was: they know 67%/40%; do not know 13%/27%; don´t want to know 6%/11%; 21% had cognitive impairment. There were two cases with previous instructions. The family knew the diagnosis/prognosis 100%/97.5%. Contact with psychologist/social work: 74%/40%. They explained 21% sedation. Mortality rate 78%. It was found a significant association between no cancer patient, dependency, caregiver burden, and admission to agony.

Discussion: Advances in medicine to prolong life often at the expense of more suffering, more diseases and more spending. The goals of medicine should consider the comfort of pain and suffering caused by disease, care and healing the sick and care for the incurable, and avoidance of premature death and the search for a peaceful death.

Conclusions: Patients without cancer have less access to palliative care, the estimated long-term survival should not be justified: it is necessary to develop predictive models and mitigation needs assessment, permitting its early attention, multidimensional and multidisciplinary. The limited diagnostic and prognostic knowledge hinders Advance Care Planning, according to patient preferences. Effective care and quality, must include strategies for care and support to families. The philosophy of palliative care should extend to all health care settings, including specific knowledge of symptom control, adequacy of therapeutic effort, communication, and attention to the death.

EA-7
QUALITY IMPROVEMENT CYCLE IN HIP FRACTURE CARE

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Objectives: Internists are more and more present in orthopedic hospitalisation departments. The aims of this study are to improve hip fracture care; their morbimortality registry, the minimum data set; and to prove that surgery delay goes against patients and physicians.

Material and method: We reviewed electronic and paper medical history of patients with code discharge 820 of ICD-9, hip fracture, between February and August 2010. In February 2012 we started a quality improvement cycle: a Resident assess comorbidities stability at admission of all the patients with hip fracture and if decompensated a staff internist must see the patient daily until improvement. We discuss in meetings with traumatologists, anesthetists, rehabilitators and nurses, the key points in medical care, and constructed five quality criterions to observe: 1. Surgical delay. 2. Comorbidity revision by internist. 3. Nurses alerts. 4. To be seated for 48 hours (post- operative). 5. Urinary catheter use for incontinence. We recodify the CMBD (Conjunto Mínimo Básico de Datos or Minimum Data Set, MDS), to be sure of the quality of history records. We compare morbidmortality rates with the same period in 2012 using a similar database variables: age, sex, number of compensated and compensated co morbidities, Principal and Secondary diagnoses, anticoagulants or antiplatelet drugs use, number of drugs consumed and actualised treatment, days of internist consultation, complications, surgery delay, stay, inhospital mortality, ambulatory mortality and walking ability, biochemical and hematological parameters, transfusions, and the five quality criterions. In the 2012 patients, we compared five clinical prognostic scores: ASA, Barthel, Pfeiffer, PROFUND and the ALBERTA hip fracture in hospital mortality risk. Statistical analysis is made using the SPSS.

Results: Until fifteenth of May we have reviewed 133 patients; 89 patients from 2010 and 44 from 2012, and we finished on August 2012 presenting the final results. Baseline Characteristics of patients are similar in both years: in hospital, mortality is 5.6% and 4.5% respectively, the number of complications by patient 0.76 and 0.70; number of comorbidities compensated at admission are 2.42 and 2.86; comorbidities decompensated are 0.12 and 0.06; all without statistical difference between 2010 and 2012. Grouping the 133 patients, decompensated comorbidity at admission in deceased patients is 0.8571, and in patients surviving 0.0598; the compensate co morbidity is 3.14 and 2.54 in deceased and alive respectively, not reaching statistical significance. In a preliminary analysis the rate of at least one complication between patients taking oral anticoagulants is 80%, with 33% mortality and surgery delay of 4.3 days; patients taking clopidogrel have 57% complication and 5.57 delay days, patients taking 100 mg of aspirin 14.2% complication and 3.7 delay days; and patients not taking anti haemostatic drugs 17% complication and 1.95 delay days. When we recodified the 2010 clinical ICD-9 diagnostics we found in 10% of cases an increase from 2.3116 to 4.2130 in GRDs weight. The best prognostic score in 44 patients predicting exitus is the PROFUND INDEX followed by the ALBERTA ($p < 0.05$). Barthel index has a p of 0.08 and the others are far from significant. Concerning the quality cycle there is a significant improvement in compliance of nurse's alerts; there is no significant improvement in the others.

Discussion: A rapid resolution of hip fracture permits better rehabilitation and less morbimortality. It is said that patients who suffer a fall with hip fracture were previously ill. In our study only 6 to 12% have a decompensated comorbidity, and we saw how often patients at high risk had complications. Surgery delay must be

essentially to avoid surgical and anaesthetic risks and no more; not for threatening complications or comorbid decompensations that probably will worsen when confined to bed. Antihaemostatic drugs are of great interest for discussion.

Conclusions: It's essential at admission to detect medical decompensation, and in polypathological patients to assess the risk of complications appearing, in order to reduce surgical delay in high risk patients. The PROFUND INDEX may be a good tool for prediction.

EA-8
DIFFERENCES IN PALLIATIVE SEDATION PRACTICE IN A PALLIATIVE CARE UNIT RESPECT TO INTERNAL MEDICINE AND ONCOLOGY SERVICES

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Objectives: Patients in the last days of life may present refractory symptoms that require palliative sedation. Objective: to compare palliative sedation practice at the end of life in a Palliative Care Unit respect to Internal Medicine and Oncology.

Material and method: Observational, retrospective, cohort study. Subjects: patients died in Palliative Care Unit (PCU), or in Internal Medicine or Oncology (Non-PCU); consecutively included. Protocol: a) Retrospective review of medical record. b) Family perceived quality study by telephone interview after death. Selection of those sedated cases.

Results: 166 patients died between 01/10/09 and 27/02/10, bellowing 66 to PCU cohort and 100 to Non-PCU. Palliative sedation was prescribed in 13 patients (19.7%) of PCU, vs 9 (9.3%) of Non-PCU (p = 0.065). Seventeen (77%) were male and mean age (SD) was 65 (10.7) years, without differences between both cohorts. All PCU patients suffered a terminal oncologic illness, vs 7 (78%) Non-PCU (NS). The 2 no oncologic cases in Non-PCU were terminal dementia and COPD. Indications: cause of sedation was recorded in MR in 100% of PCU vs 3 Non-PCU patients (33%) (p = 0.001). Most frequent recorded indication was dyspnea: 6 PCU patients (46%) and the 3 recorded Non-PCU patients (100%). Decision making: decision was discuss with 6 PCU patients (46%), vs 2 Non-PCU (22%) (p = 0.046). It was discuss with family in 100% of PCU vs 3 Non-PCU cases (33%) (p = 0.001). The most common drug used was midazolam, in 11 PCU patients (85%) and 100% in Non-PCU (NS). In 4 Non-PCU patients (44%) it was used combined with morphine with sedation intention. No PCU case received morphine with sedation intention (p = 0.008). Levomepromazine was the second most used drug in PCU (5 patients, 38%). Drugs were administered subcutaneously, except in 1 Non-PCU patient, where intravenous via was used (NS). Midazolam mean (SD) dose used was 49 (16,6) mg/24 h in PCU vs 26 (10.1) mg/24 h in Non-PCU (p = 0.001). Symptoms were recorded systematically in 92% PCU patients vs 25% Non-PCU (p = 0.002). The sedation time range was between 3 h to 7 days in PCU cohort, with median (SD) 34 (52.1) h and between 1,5 to 40.5 h in Non-PCU, with median (SD) 10 (13.8) h (p = 0.01). In a 0 to 10 scale, global satisfaction mean with care received was 9 in PCU and 8 in Non-PCU (NS); there were no differences with satisfaction family in no sedated.

Conclusions: Systematic guarantees (sedation indication-refractory symptom and decision making) were followed in a significant greater percentage in PCU cohort of sedated patients. Systematic symptom register and sedation time were greater in PCU group. Global family satisfaction was high.

EA-9
CREATION OF AN ACUTE GERIATRIC UNIT AS A SHORT STAY UNIT IN A REGIONAL HOSPITAL

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Objectives: Acute Geriatric Units (AGU) were created with the objective of providing better assistance to elderly people, and of preventing the loss of functional capacity and dependence often associated with institutionalization. Here we describe AGU, which maintains all the characteristics of a geriatric unit.

Material and method: We designed an AGU with 12 beds. The interdisciplinary team comprised two doctors (internal medicine doctors with specific knowledge of geriatrics), three nurses and three auxiliaries (one per shift), a physiotherapist, a nutritionist and a social worker. The unit depends on the Internal Medicine department. In almost all cases, patients were admitted from teh Emergency department; some were admitted from the Day Hospital, and a very small from outpatient visits. The admission criteria were: age over 80 years; good functional capacity (defined as a score of over 60 on Barthel's index; good mental status (defined as few than five mistakes Pfeiffer's questionnaire); fewer than seven days in care remaining; availability of social support.

Results: We analysed the first six months of operation of our AGU (September 2011 to March 2012). Three hundred and six patients were discharged from the unit (55% men). Mean age was 83 years, and mean length of stay was 6.3 days (0-40 days). Readmissions (1-30 days) occurred in 7.8% of cases. In the geriatric assessment of functional status, the mean Barthel's score was 84.7 points; as regard mental status, the mean number of mistakes on the Pfeiffer questionnaire was1.7. As for comorbidity, the mean score on the Charlson Index was 2.8. The main diagnoses at discharge were: heart failure (31.3%), pneumonia (20.2%), and COPD (18.5%). At the time of discharge 86% of patients returned home, one per cent was transferred to a convalescence unit for functional rehabilitation, and one per cent to a tertiary hospital for complex attention not available at our hospital. Ten per cent remained hospitalized in the Hospital at Home Unit (UHaD). Mortality was 2%.

Discussion: Strict criteria were established for admission to the AGU. Patients had to be aged 80 or more, frail but with good functional and mental status. We reached our objective of a length of stay of less than seven days (mean stay 6.3 days) with the help of the UHaD and the Day hospital. Patients were conventionally hospitalized while in need of medical care that can only be provided in hospital; after stabilization, they could be discharged to the UHaD to finalize their hospitalization, and then discharged to home with visits scheduled at the Day hospital in the next few days for clinical control or blood tests, X-ray, and so on. The readmission rate was 7.8%, similar to that recorded in other areas in the department. The geriatric assessment reflected good functional capacity (Barthel's score 84.7) and good mental status (Pfeiffer 1.7). Some authors say that the best candidates for admission to the AGU are frail patients with good functional status. The mean length of stay was 6.3 days (0-40 d). The principal diagnoses were heart failure, pneumonia and COPD, mostly decompensated chronic diseases. Our patients were pluripathological, with a medium-high mean Charlson's index of 2.8 points. At time of discharge 86% of patients were at home, and only 1% was transferred to a convalescence centre for functional rehabilitation. The mortality rate was low (2%).

Conclusions: We created an AGU as a short stay unit with two key features: 1. Strict inclusion criteria before admission. 2. The aid of the Hospital at Home Unit and Day hospital to allow early discharge, without any increase in readmissions.

EA-10
IDENTIFYING THE CHARACTERISTICS OF STROKE PATIENTS: ELDERLY VS ADULTS

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Objectives: The aim of this study was to define the demographic and clinical characteristics of stroke patients who referred to physical medicine and rehabilitation clinic and to detect the differences between these characteristics in regard to age.

Material and method: Stroke inpatient case notes, recorded between 2009-2012 in national rehabilitation center were evaluated in a retrospective study. Demographic data, etiology of stroke, duration of stroke, effected side in stroke and comorbid diseases of the patients were recorded. Differences regard to age were evaluated.

Results: One hundred thirty six stroke inpatient case notes (77 men, 55 women; mean age, 64.8 ± 1.1 years) were evaluated. Elderly stroke patients had more ischaemic etiology (88.4% vs 74.6%), more hypertension (76.1% vs 61.5%), more diabetes (33.8% vs 23.1%) and more atrial fibrillation (28.2 vs10.8%); adult stroke patients had more hemorrhagic etiology (25.4% vs11.6), more ischaemic heart disease (33.8%, 26.8%), more dyslipidemia (21.5% vs 16.9%) and more dyspeptic complaints (36,5%vs 28.2%). Other age related variation in clinical characteristics of stroke patient were as in table.

Discussion: Age seems to be an important factor on clinical characteristics of stroke patients.

Conclusions: It may be important to address such differences when developing stroke preventative strategies in stroke survivors of Turkish population.

EA-11
PULMONARY HYPERTENSION (PH) IN INTERNAL MEDICINE: ECHOCARDIOGRAPHIC DIAGNOSIS

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Objectives: 1) To define the prevalence of PH among patients admitted to an internal medicine ward. 2) To describe the characteristics of these patients and the prevalence of the different causes of PH in this population.

Material and method: Retrospective study of patients with PH admitted to an internal medicine ward of a third level general hospital in a 1 year period: Jan 01 to Dec 31, 2010. Analyzed variables: age, sex, cardiovascular risk factors (CVRF), chronic renal failure (CRF), left heart disease, lung disease and others etiologies of PH (1, 1´, 2 and 5 groups of the 2009 European PH guidelines), the diagnostic method of the PH, the potential relationship of PH as the cause of admission and PH hospital mortality. PH diagnosis was done according to echocardiographic criteria. Statistical analysis: quantitative variables are shown as mean ± SD, qualitative variables as percentages and compared using the chi squared test. Differences were considered significant at $p < 0.05$. All statistical analyses were performed using SPSS version 17.0.

Results: Prevalence of PH was 16% of total admissions: 77 patients, 66,2% women, with a mean age of 81 years. The most frequent findings in their medical records were arterial hypertension (84.6%) and atrial fibrillation (70.1%) and smoking among men (77%). The most prevalent cause of PH was linked to lung diseases (36.4%), with statistically significant differences between men and women (69% and 45% respectively, $p = 0.0003$), followed by the left heart disease (32.5%), sharing both diagnosis 9.1% of the cases. Among the lung diseases, chronic obstructive pulmonary disease (COPD) (61%) was the most prevalent disorder, followed by obstructive sleep apnea-hypopnea syndrome (OSAHS-OHS) (17%) and interstitial diseases (5%). The PAH and chronic thromboembolic pulmonary hypertension were uncommon features (1.3% and 2.6% respectively). Prevalence of other PH etiologies was null. In 13% of the patients PH mechanisms remained unclear. In most patients the reason for consultation on admission was associated with PH (67'9%) being the main causes dyspnea and right heart failure. The mortality rate of PH patients during hospitalization was a 6.4%.

Discussion: Up to date no comparative epidemiological data are available about the prevalence of different causes of PH in patients admitted to internal medicine wards. According to data of our study, it is predominantly secondary to 2 common disorders found in general clinical practice: left heart disease and lung disease. Prevention and treatment of PH in these patients include appropriate management of these underlying conditions. There is a percentage of patients (13%) in whom HP has an unknown origin, and could be an undiagnosed IPAH, thus they would benefit from a right heart catheterization.

Conclusions: 1) Prevalence of PH in our study was 16% of patients admitted to an internal medicine ward of a 3rd level general hospital. 2) The diagnosis of PH was done in all patients by echocardiography. 3) The most frequent causes of PH in this series are lung diseases (36,4%), mainly COPD, and left heart disease (32.5%). A mixed cause of PH were found in 9.1% of patients. 4) PH due to thromboembolic disease (1.3%) and PAH (2.6%) are rare in this series. 5) In 13% of the patients PH mechanisms remained unclear.

EA-12
HOSPITAL ADMISSIONS IN CENTENARIANS: HAVE THERE BEEN CHANGES IN THE LAST FOUR YEARS?

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Objectives: Centenarians surpass the current human life expectancy with about 20-25 years. Nowadays, they are an growing

Table 1 (EA-10). Demographic and clinical characteristic of the study population

	Age < 65 years 8 (n = 65)	Age > 65 years (n = 69)
Mean SD age, year	54.6 ± 1.1	74.2 ± 0.8
Mean SD stroke time, month	5.8 ± 1.4	5.4 ± 2.2
Etiology of Hemiplegia	Ischaemic = 47 (74.6%) hemorrhagic = 16 (25.4%)	Ischaemic = 61 (88.4%) hemorrhagic = 8 (11.6%)
Hemiplegic side	Right = 28 (44.4%) Left = 33 (52.4%) Bilateral = 2 (3.2%)	Right = 28 (44.4%) Left = 33 (52.4%) Bilateral = 2 (3.2%)
Gender	Male = 42 (66.7%) female = 21 (33.3%)	Male = 28 (64%) female = 15 (36%)

segment of society and clinicians will increasingly encounter this group. We sought to determinate characteristics of centenarians admitted to CAZA (Complejo Asistencial de Zamora) over a 4-years period.

Material and method: To describe the characteristics of the centenarians, we conducted a retrospective case series analysis of all patients 100 years of ages an above admitted to CAZA. We reviewed the medical records of these centenarian patients who were admitted in the last four years (2008-2011). We analyzed the next data: number of admissions, sex, age, type of admission (elective or urgency), admission service, length of stay, main diagnosis and survival.

Results: There were 81 admissions with a mean age of 101.1 years (range 100 to 107 years). The main diagnoses were: respiratory infection (25%), Heart failure (8%), hip fracture (7%), stroke (6%), and gangrene (6%). The admitted service was medical for the majority patients (86%); only one centenarian was admitted to the intensive care unit. The mean length of stay was 8.86 days. There were 27 deaths (33%). None of admissions was elective. See Table 1.

Discussion: Little information exists on the hospitalization in the centenarians. We tried to know some data about them and to analyze the possible changes happened in the last four years. There weren´t important differences in the data obtained in our study. The admissions have increased in the last years. Most of the patients were admitted to medical services. The mean length of stay was similar to the rest of patients who was admitted in those services. The mortality rate in the 2011 is lower than in other years.

Conclusions: The centenarians admitted to CAZA have increased in the two last years. They are admitted mainly in medical services. The mean length of stay in centenarians are similar than the rest of the patients. The hospital mortality rates aren't high (about 33%).

EA-14
VALIDATION OF THE CHANGE VERSION OF THE TREATMENT SATISFACTION QUESTIONNAIRE FOR CARERS OF DEPENDENT PATIENTS WITH TYPE 2 DIABETES (STCD2-C)

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Objectives: Our group has recently developed the STCD2 questionnaire: an instrument directed to assess the satisfaction with blood glucose-lowering treatment in carers of dependent patients with type 2 diabetes. The purpose of this study was to develop and validate a version of this questionnaire intended to assess satisfaction after introducing changes in the blood glucose-lowering therapy.

Material and method: Observational study conducted in the 'Los Montalvos' Internal Medicine Department of the University Hospital of Salamanca (Spain). The change version of the STCD2 questionnaire (STCD2-c) was developed and administered by researchers of the medical team of this Department. It was validated in carers of consecutive, dependent patients with type 2 diabetes receiving anti-diabetic medication, admitted at the hospital for any reason, in which anti-diabetic therapy had been changed in some way during hospital admission (following routine clinical criteria). Validation was performed using the data obtained in telephone interviews carried out eight weeks after discharge from hospital and further telephone interviews four weeks later in which the questionnaire was repeated. The minimum number of participants necessary to validate the test was determined using the Streiner and Norman methodology. A scoring system was established ranging from 5 points to 1 point for each of the questionnaire items. An overall satisfaction index was defined as the sum of the scores for the seven items. The internal consistency of the survey was calculated using Cronbach's alpha coefficient. The test-retest reliability was analysed by calculating the intra-class correlation coefficient between the two administration times of the questionnaire. The construct validity was investigated by estimating the Spearman correlation between the individual and overall scores for the questionnaire and levels of satisfaction with the patient's blood glucose levels.

Results: The change version of the STCD2 questionnaire was created. It consist of 7 questions with a 5-response scale, from "very satisfied" to "very dissatisfied" in the first six items and from "I would definitely recommend it" to "I wouldn't recommend it at all" in the last item. The first item refers to overall treatment satisfaction, the next 5 assess satisfaction in specific areas and the final item concerns whether or not they would recommend the patient's current treatment. The validation of the survey was carried out in 127 cases. Cronbach's alpha coefficient was 0.92. Correlation was demonstrated between all the items ($r = 0.33$–0.79, $p < 0.001$). In the test-retest reliability analysis, the intra-class correlation coefficient was 0.96 (95%CI, 0.95–0.97, $p < 0.001$). The construct validity was demonstrated in the correlation matrix. The scores for all the questionnaire items and the overall satisfaction score were correlated with the satisfaction scores for the blood glucose levels ($r = 0.44$–0.78, $p < 0.001$). In 8 cases (6.2%) and 0 cases (0%) respectively, extreme scores were achieved (floor/ceiling effect).

Discussion: Satisfaction with treatment, knowledge about the disease and assessment of the impact on the patient's quality of life are all considered as measurements for assessing results in clinical practice. When assessing satisfaction in dependent patients, the opinion of their carers becomes more important, since they are the ones administering the medication and it is they who will detect any side effects. Specific therapeutic strategies aimed at managing dependent patients with type 2 diabetes can be designed knowing the effects of changing treatment on satisfaction of their carers.

Conclusions: The STCD2-c questionnaire is a consistent and valid instrument for measuring satisfaction with the blood glucose-lowering treatment after changing the anti-diabetic therapy in carers of dependent patients with type 2 diabetes.

Table 1 (EA-12). Results in every year

	2008	2009	2010	2011
Numbers of admissions	17	16	19	29
Sex	12 F/5 M	12 F/4 M	9 F/10 M	19 F/10 M
Mean age (years)	101,1	100.5	101,6	101,4
Mean of length of stay (days)	10.6%	9.06	7.1	8.7
Admitted to medical services	87%	81%	94%	83%
Deaths	6 (35%)	7 (43%	9 (47%)	5 (19%)

EA-15
APPLICATION OF THE STCD2-C QUESTIONNAIRE IN CARERS OF DIABETIC PATIENTS IN A SPANISH INTERNAL MEDICINE SERVICE

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Objectives: The objective of this study was to administer the recently validated STCD2-c questionnaire in carers of dependent patients with type 2 diabetes, to determine their satisfaction after introducing changes in the blood glucose-lowering treatment, in a Spanish internal medicine service.

Material and method: The STCD2-c questionnaire was applied to the carers of consecutive, dependent, type 2 diabetic patients receiving anti-diabetic medication, admitted (for any reason) to the 'Los Montalvos' Internal Medicine Department of the University Hospital of Salamanca (Spain). Carers were invited to take part in the study when the patients they were caring for were on drug treatment to control their blood glucose levels and had changed treatment during hospitalization. When hospitalized, patients were treated in line with the routine clinical criteria of the medical team whose attention they were under. A change in therapy was considered to be any modification to the type of drug or the number of times the blood glucose-lowering medication was administered. An overall satisfaction index was defined as the sum of the scores for the seven items (minimum = 7 points, maximum = 35 points) of the questionnaire. The survey was administered over the telephone eight weeks after discharge from hospital by members of the investigating medical team.

Results: The STCD2-c questionnaire was given to 127 carers of patients. The changes made to treatment in these cases were described. The median number of daily administrations for the antidiabetic medication (insulin and/or oral antidiabetic) was 1 (0–4). The degree of satisfaction with the change (the sum of scores for each of the items in the change questionnaire) was 27.3 (95%CI, 26.4–28.2). Statistically significant differences in the questionnaire score were found based on the change in treatment between those with a change in the dosage and those with no dosage change (25.1; 95%CI, 23.8–26.4 vs 28.3; 95%CI, 27.1–29.5, $p < 0.01$) and between those in whom all blood glucose-lowering medication was discontinued and all other changes (30.8; 95%CI, 27.8–33.8 vs 26.6; 95%CI, 25.7–27.5, $p < 0.01$). The cases in which a long-acting insulin analogue was included in the new treatment had higher scores for the item referring to greater satisfaction with the patient's blood glucose levels (4.6; 95%CI, 4.3–4.9 vs 3.9; 95%CI, 3.7–4.1, $p < 0.001$) and for the item asking about greater satisfaction in terms of continuing with the treatment after the change (4.5; 95%CI, 4.2–4.9 vs 4.0; 95%CI, 3.8–4.2, $p < 0.01$). Carers of patients receiving more frequent administration of their anti-diabetic medication prior to the change were more satisfied with the change ($r = 0.24$, $p < 0.001$). Similarly, correlation was found between the number of daily administrations for blood glucose-lowering medication after the change and the degree of satisfaction ($r = -0.43$, $p < 0.001$).

Discussion: In this study, the degree of carers satisfaction increased after changing treatment, being the most appreciated change discontinuation of all blood glucose-lowering medication. Significant differences were also observed in the increase in overall satisfaction as the number of medication administration times reduced after the change. This highlights the fact that simplifying the treatment is one of the most influential factors on satisfaction. Carers of patients receiving only a long-acting insulin analogue showed an overall satisfaction index higher than those of the patients of the remaining therapeutic groups. Also, when introduced in the treatment change, once-a-day administration of long-acting insulin or analogue made the carers more likely to feel satisfied with the blood glucose levels and to recommend the treatment to others.

Conclusions: Simplifying the treatment is one of the most influential factors on satisfaction of carers of dependent patients with type 2 diabetes.

EA-16
POLYPHARMACY AND COMPLIANCE WITH START CRITERIA IN PATIENTS ADMITTED AT A MEDIUM-LONG-TERM CARE HOSPITAL

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Objectives: The START criteria (Rev Esp Geriatr Gerontol. 2009;44:273–9) aim to ensure the prescription of drugs that have shown to be beneficial in certain diseases, in people over 65 years of age. Our objective was to analyse if these criteria were met in patients of a medium- long-term care hospital.

Material and method: A cross-sectional study was carried out that included a sample of 81 patients over 65 years of age who were hospitalized at the Department of Internal Medicine of the Hospital Universitario San Rafael of Granada, on April 10, 2012. The variables elicited by the physician in charge of each patient were age, gender, number and type of drugs prescribed (excluding serum therapy and topical treatments), and diagnoses to analyse the drug prescription according to the patient's disease, following the START criteria.

Results: The mean age of the patients was 78.2 ± 7.2 years, and 54.3% of the patients were male. Each patient received 10.7 ± 3.4 drugs. 25.9% of the patients received the drugs indicated according to the START criteria; in 37% of the patients 1 START criterion was unmet; in 25.9%, 2 criteria were unmet; in 7.4%, 3 were unmet and in 3.8% of the patients, 4 or 5 criteria were unmet. The table shows the START criteria that were met the least.

Discussion: In our sample, and in spite of the polypharmacy detected, the drugs that were prescribed the least, in spite of their

Table 1 (EA-16). START criteria most frequently unmet in the patient sample (n = 81)

Description of the START criterion	Percentage of patients in which the START criterion is unmet
Statins in diabetes mellitus associated to one or more vascular risk factors	29.6%
Statins with a history of arteriosclerotic disease, independence for everyday life activities and a life expectancy greater than 5 years	24.7%
Platelet antiaggregants in diabetes mellitus associated to one or more vascular risk factors	13.6%
ASA or clopidogrel with a history of arteriosclerotic disease in patients with sinus rhythm	12.3%
Metformin in type-2 diabetes mellitus in the absence of kidney failure	11.1%
Calcium and vitamin D supplements in patients with known osteoporosis	8.6%

indication, were statins and antiaggregants (in primary and secondary prevention), possibly due to the perception of futility of said treatments in elderly patients. We highlight the scarce prescription of calcium and vitamin D in patients with osteoporosis, probably for the aforementioned reason.

Conclusions: Statins and antiaggregants, followed by calcium supplements and vitamin D, were the indicated drugs, according to START criteria, that were prescribed the least among patients of over 65 years of age.

EA-17
INADEQUATE PRESCRIPTION ACCORDING TO STOPP CRITERIA IN INPATIENTS OF A MEDIUM-LONG-TERM CARE HOSPITAL

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Objectives: The inadequate prescription of drugs in elderly patients is a frequent problem that increases the risk of adverse reactions to drugs. The STOPP criteria (Rev Esp Geriatr Gerontol. 2009;44:273–9) aim to prevent the prescription of potentially inappropriate drugs in people of over 65 years of age. Our objective was to analyse the inadequate prescription in patients of a medium-long-term care hospital.

Material and method: A cross-sectional study was carried out that included a sample of 81 patients over 65 years of age who were hospitalized at the Department of Internal Medicine of the Hospital Universitario San Rafael of Granada, on April 10, 2012. The variables elicited by the physician in charge of each patient were age, gender, number and type of drugs prescribed (excluding serum therapy and topical treatments), and diagnoses to analyse the potentially inappropriate prescription following the STOPP criteria.

Results: The mean age of the patients was 78.2 ± 7.2 years, and 54.3% of the patients were male. Each patient received 10.7 ± 3.4 drugs. Thirteen point six percent (13.6%) of the patients received an adequate prescription without meeting any STOPP criteria; 37% of the patients met 1 STOPP criterion in their treatment; 18.5% met 2 criteria; 14.8% fulfilled 3 criteria, 8.6% met 4 criteria and 7.4% met 5 or 6. The table shows the most frequent STOPP criteria of the sample.

Discussion: In our sample, we detected that 86.4% of the patients had at least one inadequate prescription in their hospital treatment according to STOPP criteria. This figure is clearly greater than the one reported recently (45.8%) when using the STOPP criteria to review the home treatments of patients who were admitted to an Internal Medicine Department (Rev Clin Esp. 2012;212:268-70) although the number of drugs per patient was lower (7.6 ± 0.4) than in our study. In our sample, the drugs that motivated the most inadequate prescription were sustained PPIs at high doses (34.6% of the patients), which could be justified by the percentage of antiaggregated or anticoagulated patients of our sample (49.4%), due to their elevated polypharmacy and their advanced age. The extended use of benzodiazepines and neuroleptics stands out in elderly patients due to their high prevalence and their association to a greater risk of iatrogenesis (confusion, nocturnal sedation, falls, extrapyramidal symptoms, etc.).

Conclusions: A high percentage of Internal Medicine inpatients receive an inadequate prescription. Benzodiazepines and neuroleptics are the drugs involved in most cases of inadequate prescription, which is why caution must be exercised when they are prescribed, and their indication must be reassessed periodically.

EA-18
FUNCTIONAL STATUS IN PATIENTS HOSPITALISED IN A GENERAL INTERNAL MEDICINE SERVICE: DIFFERENCES IN BARTHEL INDEX PRIOR TO ADMISSION AND AT DISCHARGE

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Objectives: To analyze the clinical characteristics and the changes in the functional status of patients admitted to an Internal Medicine Service.

Material and method: We prospectively studied all patients hospitalised in an Internal Medicine Service between 1st of July and 31st of October, 2011. The functional status was determined by Barthel Index: prior to admission, at admission and at discharge.

Results: 234 patients were included. 56% were males and median age (IQR) was 79 (15) years old. Only 16 (6.8%) were living in nursing home facilities. Respiratory (24%), cardiovascular (20%), infectious (15%) and neurologic (14%) diseases were the main reasons for admission. 18 (7.7%) patients died during admission. At discharge 20% of patients were referred to a nursing home facility. The median (IQR) punctuations of Barthel index were: 95 (40) prior to admission, 55 (65) at admission and 85 (50) at discharge. When comparing Barthel index at discharge with Barthel index before admission we found similar values in 34%, lower values at discharge (functional impairment) in 39% and higher values at discharge (functional improvement) only in 15%. The following variables were significantly related with functional impairment during hospitalisation: age, neurologic disease, length of hospitalisation, referral to a nursing home facility at discharge and lower values in all Barthel index measurements.

Conclusions: Hospitalisation implies a great functional impairment in the patients admitted to an Internal Medicine Service. Patients with advanced age, neurological disease and lower Barthel index values at admission experience functional impairment more frequently. Functional impairment implies a longer hospitalisation and a more frequent requirement of a nursing home facility at discharge.

Table 1 (EA-17). Main causes of inappropriate prescription according to the STOPP criteria applied to the sample (n = 81)

Description of the STOPP criterion	Percentage of patients with STOPP criteria
PPIs for peptic ulcerative disease at full therapeutic doses (esomeprazole 40 mg/d) for more than 8 weeks	34.6%
Benzodiazepines in patients with previous falls	24.7%
Prolonged use of benzodiazepines with long half life	22.0%
Neuroleptics in patients with previous falls	21.0%
Prolonged use of neuroleptics as hypnotics	19.8%

Table 1 (EA-18). Changes in functional status in patients admitted to an Internal Medicine Service

	No changes in functional status	Functional improvement	Functional impairment	p value
Male gender	43 (54%)	23 (66%)	48 (53%)	0.40
Age (years)	70.5 (18)	79 (9)	82 (10)	< 0.001
Nursing home facility prior to admission	2 (3%)	4 (11%)	5 (6%)	0.17
Main diagnosis at admission	Respiratory (31%). Infectious (21%). Cardiovascular (19%)	Respiratory (23%). Cardiovascular (23%). Other (23%)	Neurologic (25%). Respiratory (19%). Cardiovascular (19%)	0.001
Hospitalisation (days)	4 (4)	5 (4)	7 (7)	< 0.001
Nursing home facility at discharge	3 (4%)	4 (11%)	29 (37%)	0.001
Barthel bef admission	100 (0)	80 (35)	90 (35)	< 0.001
Barthel at admission	100 (35)	55 (45)	45 (45)	< 0.001
Barthel at discharge	100 (0)	95 (25)	50 (65)	< 0.001

EA-19
PREVALENCE AND IMPACT OF MALNUTRITION IN CHRONIC AND PLURIPATHOLOGIC HOSPITALIZED PATIENTS

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Objectives: Malnutrition is a serious disorder that is frequently undervalued in hospitalized patients for other conditions, becoming more relevant with long stays at hospital. Our aim is to assess the prevalence of malnutrition in elderly patients hospitalized in the Medium to Long Stay Unit in a Universitary Hospital. We also want to determine the possible association between this condition and patient´s clinical characteristics in terms of comorbidity, functional status, cognitive impairment and dysphagia.

Material and method: We performed a descriptive, observational and cross-sectional study including 122 patients admitted to our unit over 4 months. They were evaluated by an interdisciplinary team of nurses and internists. Administrative and general data (age, sex, stay length...) were recorded along with the cause of hospitalization, comorbidity (Charlson), cognitive impairment (Pfeiffer) and functional status (Barthel) assessment by physicians. The diagnosis of the nutritional status was made by the validated test Mini-Nutritional-Assessment (MNA). Symptoms and signs that could be the cause or effect of malnutrition were recorded along with analytic parameters of interest (albumin, total protein, lymphocyte count and cholesterol). Trained nurses assessed the presence of pressure ulcers and did a thorough anthropometric evaluation. The presence of dysphagia was evaluated by the Volume/Viscosity test. Results are expressed in mean, standard deviation and percentages.

Results: The age of our group was 76.8 years (12.6), with a slight prevalence of men (53.3%). The two main reasons for hospital admission were chronic obstructive pulmonary disease (22.2%) and stroke (17.3%). The stay length was 24.6 days (20.5). The Charlson index showed that 59% of them had comorbidity. The Barthel index was 34.7 (30.9), where 64.4% of patients had severe or total dependence, and 28.7% had mild to severe cognitive impairment (Pfeiffer). The BMI was 22.9 kg/m^2 (5.8). According to the MNA score 55.7% of the elderly were malnourished, and 39.3% at risk of malnutrition. The prevalence of dysphagia was 35%. We found an association between malnutrition and weight/BMI (p 0.000 for both), Age (p = 0.013), Pfeiffer (p = 0.003), Barthel (p = 0.000), dysphagia (p = 0.001), total protein (p = 0.015), lymphocyte count (p = 0.008) and presence of pressure ulcers (p = 0.002).

Discussion: The age and prevalence of comorbidity, cognitive impairment and functional decline clearly reflects the complexity and frailty of our population. There is an elevated prevalence of malnutrition and risk of becoming malnourished in our group, similar to those reported in the literature. The use of the MNA score has shown to be useful in the malnutrition diagnosis; the weight and BMI could help to identify highly vulnerable patients. Malnutrition has been related with some clinical conditions (age, mental decline, comorbidity, functional status and dysphagia), probably they act as important etiological factors. It is also related with the presence of pressure ulcers and low lymphocyte count, showing the impact of this condition in the immunitary system and the healing process.

Conclusions: Malnutrition is a problem of elevated prevalence and impact in our population. It is of paramount importance to correctly evaluate the presence of risk factors and diagnose this condition in order to prevent/treat it accurately. It is necessary to conduct larger and prospective studies to provide a better understanding of both its prognosis and its therapeutic approaches.

EA-20
COMPARATIVE STUDY OF INADEQUATE PRESCRIPTION BETWEEN INTERNISTS AND GERIATRICIANS OF A MEDIUM-LONG-STAY HOSPITAL

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Objectives: The inadequate prescription of drugs in elderly patients is a frequent problem that increases the risk of adverse reactions to drugs, which is why the STOPP criteria, which aim to prevent this situation, was published recently (Rev Esp Geriatr Gerontol. 2009;44:273–9). Our objective was to compare the characteristics of the inadequate prescription in elderly patients by internists and geriatricians of a medium-long-term care hospital.

Material and method: A cross-sectional study was carried out that included a sample of 81 patients over 65 years of age, admitted to the Department of Internal Medicine of the Hospital Universitario San Rafael of Granada, on April 10, 2012. The variables elicited by the physician in charge (internist or geriatrician) of each patient were age, gender, number and type of drugs prescribed, and diagnoses to analyse the inadequate prescription of drugs, following the STOPP criteria. The data collected were compared according to the specialty of the prescribing physician.

Results: The group of patients attended by geriatricians (n = 47) was matched for age with the group attended by internists (n = 34) (77.6 ± 6.8 years vs 79.1 ± 7.7 years, respectively; p = 0.359).

Patients of internists received more drugs than those of geriatricians (12.4 ± 3.3 vs 9.5 ± 2.9, respectively; p = 0.0001). No statistically significant differences were found when comparing the mean of STOPP criteria in patients treated by internists and patients treated by geriatricians (2.24 ± 1.6 vs 1.7 ± 1.4, respectively; p = 0.117). When comparing both groups (see table), the only STOPP criterion that showed any differences was the use of neuroleptics as hypnotics.

Discussion: We detected that the patients attended by internists received a greater number of drugs than those attended by geriatricians, although without an increased inadequate prescription. The use of PPIs at full doses was the most frequent STOPP criterion in both groups. A high use of benzodiazepines and neuroleptics was also detected in both groups, entailing risks in elderly patients.

Conclusions: A predominance of the use of neuroleptics as hypnotics was detected in internists compared to geriatricians. Generally speaking, the use of benzodiazepines and neuroleptics was high in both groups.

EA-21
CAN WE PREVENT MORTALITY OF HIP FRACTURE PATIENTS? RESULTS OF INTEGRATED CARE IN A PRIMARY HOSPITAL

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Objectives: The number of hip fractures occurring in Europe and postsurgical outcome are a major public health concern. As a result, Internal Medicine care has been integrated in Traumatology Department of our primary hospital since five years ago.Our primary objective was to define the profile of patient who dies of hip fracture and our secondary objective was to assess the extrinsic factors that contribute to mortality.

Material and method: Patients who died during the early postoperative of hip fracture over the past three years were included in this retrospectively study. Results were evaluated with the SPSS 15.0 statistic programme.

Results: The study sample consisted of 30 cases (20 women and 10 men) with a mean age of 87 years where the 63.3% had cognitive impairment. Preoperative ASA risk score was III-IV in the 71.4% of cases and waiting time until the surgery was 4 days. The main cause of death was congestive heart failure. Table 1 shows annual death rates.

Discussion: Despite the elevated mean age of our patients the prevalence of other diseases was low, which can be explained by the familiar support, only 13.3% were living in nursing homes and/or intermediate-care facilities. In Spain the mean waiting time until surgery is 3 days, it is essential to know that in our patients it was one day more. Although the mean hemoglobin at time of admission was 12.5 mg/dl the main postsurgical complication was anemia, which is a well-known risk factor of developing heart failure, that is our primary cause of death.

Conclusions: 1. Since heart failure was the main cause of death and cardiovascular disease was the most often comorbidity in our study, an intensive treatment should be administered during hospital phase. 2. More studies are needed to determine predictive risk factors of mortality.

EA-22
COMPARATIVE STUDY OF COMPLIANCE WITH START CRITERIA BETWEEN INTERNISTS AND GERIATRICIANS OF A MEDIUM-LONG-STAY HOSPITAL

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Objectives: The START criteria (Rev Esp Geriatr Gerontol. 2009;44:273–9) aim to ensure prescription of drugs that have shown to be beneficial in certain diseases, in people over 65 years of age. Our objective was to compare the compliance with these criteria in patients treated by internists and geriatricians of a medium-long-stay hospital.

Material and method: A cross-sectional study was carried out that included a sample of 81 patients over 65 years of age, admitted to the Department of Internal Medicine of the San Rafael University Hospital of Granada, on April 10, 2012. The variables elicited by the physician in charge (internist or geriatrician) of each patient were age, gender, number and type of drugs prescribed, and diagnoses to analyse the drug prescription according to the patient's disease, following the START criteria. The prescription by internists was compared to the prescription by geriatricians.

Table 1 (EA-20). Comparison of the most frequent STOPP criteria, depending on the specialty of the prescribing physician

Most frequent STOPP criteria in internists (% of patients who present it)	Most frequent STOPP criteria in geriatricians (% of patients who present it)	p
PPIs at full therapeutic doses (esomeprazole 40 mg/day) for more than 8 weeks (38.2%)	PPIs at full therapeutic doses (esomeprazole 40 mg/day) for more than 8 weeks (31.9%)	0.555
Benzodiazepines in patients who are prone to falling (32.4%)	Benzodiazepines in patients who are prone to falling (19.1%)	0.174
Prolonged use of neuroleptics as hypnotics (32.4%)	Prolonged use of neuroleptics as hypnotics (10.6%)	0.015
Prolonged use of benzodiazepines with a long half life (26.5%)	Prolonged use of benzodiazepines with a long half life (19.1%)	0.434
Neuroleptics in patients who are prone to falling (20.6%)	Neuroleptics in patients who are prone to falling (21.3%)	0.940

Table 1 (EA-21). Annual Death Rates

	Total hip fractures	Total exitus	Crude mortality rate	Surgery mortality rate
2009	125	8	5.93%	2.22%
2010	137	14	10.21%	8.19%
2011	125	9	7.20%	3.52%

Table 1 (EA-22). Comparison of the START criteria that are infringed upon more frequently, depending on the physician's specialty

START criteria that were most infringed upon among internists (% of patients where said criterion was not met)	START criteria that were most infringed upon among geriatricians (% of patients where said criterion was not met)
Statins in diabetes mellitus if one or more vascular risk factors coexist (29.4%)	Statins with a history of arteriosclerotic disease (34%)
Statins with a history of arteriosclerotic disease (11.8%)	Statins in diabetes mellitus if one or more vascular risk factors coexist (29.8%)
Metformin in type-2 diabetes mellitus in the absence of kidney failure (8.8%)	Platelet antiaggregants in diabetes mellitus if one or more vascular risk factors coexist (19.1%)
Bisphosphonates in patients with maintenance oral corticoids (8.8%)	ASA or clopidogrel with a history of arteriosclerotic disease (14.9%)

Results: The group of patients attended by geriatricians (n = 47) was matched for age with the group attended by internists (n = 34) (77.6 ± 6.8 years vs 79.1 ± 7.7 years, respectively; p = 0.359). Internists prescribed more drugs than geriatricians (12.4 ± 3.3 vs 9.5 ± 2.9, respectively; p = 0.0001). Although the number of unmet START criteria was low in both groups, significant differences were found when comparing the mean of unmet START criteria in patients treated by internists and by geriatricians (0.97 ± 1.0 vs 1.49 ± 1.1, respectively; p = 0.033). When comparing both groups (see table), the only START criterion that showed any differences (p = 0.015) was the indication of statins in patients with arteriosclerotic disease.

Discussion: We detected that internists prescribe more drugs than geriatricians, although the latter infringe more START criteria than the former. The START criteria that were more infringed upon were the use of statins in primary and secondary prevention, probably due to the type of patients who are admitted to the hospital, usually the elderly, having multiple diseases and a life expectancy of less than 5 years. However, we believe that emphasis must be placed on the importance of these treatments in the management of vascular disease, even in elderly.

Conclusions: Statins were the drugs that were less prescribed in spite of their indication. The diseases in which more START criteria were unmet were diabetes and atherosclerotic disease. It is necessary to raise awareness on the benefit of prescribing these drugs, even in elderly patients for whom this is an indication.

EA-23
ARTERIAL HYPERTENSION AND COMORBIDITY IN ELDERLY PATIENTS

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Objectives: Arterial hypertension (AH) represents the most prevalent factor of cardiovascular (CV) risk, and it presents with important economical repercussion on pharmaceutical expenses, morbidity and mortality which it associates. Other cardiovascular risk factors often coexist, making a joint approach of several different conditions to be necessary. All that should focus on a society where the prevalence of those diseases rise with aging, and because of this, it results of paramount importance since their increase is foreseen for our population during next decades due to a longer life expectancy linked to improvement of CV-related therapies and prolonged survival of those patients who suffer from them. Present recommendations from protocols and guidelines on hypertension include systolic blood pressures not higher than 140 mmHg and diastolic figures less than 90 mmHg for adults, while few articles assessing elder patients are available.

Material and method: Descriptive, observational and retrospective assessment was performed based on 100 randomized patients more than 80-year-old, admitted at Internal Medicine department of Zamora´s Hospital Virgen de la Concha through year 2011. Age, gender, rural or urban origin, presence of diagnosed AH or other CV risk factors (diabetes mellitus - DM -, heart, cerebrovascular and/or renal condition) and electrocardiogram changes, together with main cause of admission were assessed.

Results: 48 out of 100 patients analized were male gender, with a mean age of 88 years and higher number of patients from rural origin (64%). AH was present at diagnosis in 71% of them; two new patients added at discharge. DM prevalence of patients assessed was 30% and presence of heart or brain conditions was 32% and 19% respectively, rising up to 49% and 23% at discharge. Chronic kidney disease was verified in 29 patients according to serum creatinine levels and in 54 by means of MDRD formula. Two or more CV risk factors coexisting in 81% of patients assessed, AH together with heart and renal condition as most frequent association seen (17% of total amount). Atrial fibrillation (AF) was present in 33% of patients from our series, and another 17% showed other electrocardiogram changes. The higher percentage of admissions was due to heart failure (27%).

Discussion: In recent years a significant rise of incidence in CV risk factors has been seen for Spanish population, leading to its prevalence increase due to higher life expectancy as well as coexistence of several linked conditions for one only patient. A great percentage of individuals with chronic kidney disease would not be diagnosed if only serum creatinine levels were used. AF constitutes the main arrhythmia seen in developed countries, with general prevalence of 1%, rising up to 9% for patients more than 80-year-old, and progressively for elder age ranges.

Conclusions: There is a high prevalence of CV risk factors at this population here assessed, possibly linked to an elder age. The elderly often associate two or more CV conditions. The kidney constitutes the most frequently AH-related organ affected. Higher prevalence of AF patients within our series.

EA-24
EPIDEMIOLOGICAL STUDY OF CENTENARIAN PATIENTS ADMITTED IN THE DEPARTMENT OF INTERNAL MEDICINE I FOR A PERIOD OF 7 YEARS

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Objectives: To establish the clinical and biological characteristics, previous associated conditions, main diagnosis, comorbidities (decubitus ulcers, percutaneous feeding tubes), type of dementia, stage of dependency according to Barthel's index, death and cause of death in all the centenarian patients admitted in the Department of Internal Medicine I for a period of 7 years.

Material and method: We reviewed the clinical records of all centenarian patients admitted in the Department of Internal Medicine during a period of 7 years who met the following requirements: complete anamnesis and physical exploration, assessment of the degree of dementia and dependency, complete analysis, thoracic X-ray, brain CT scan and thoraco-abdominal CT scan. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: In a period of 7 years, the Department of Internal Medicine I has registered 8603 arrivals. 77 cases were selected, 22 of which were ruled out because they did not meet the requirements presented in the Material and Methods section. The remaining 55 cases represent 0.8% of all the arrivals in the Department. In this group, 76.40% were women and 23.60% were men. 99% of the patients had a personal record of ictus (which was ischemic in 85% of the cases), anemia of chronic disease in 87.3% of the cases, hypertension in 58.2% of the cases, chronic kidney failure in 38.2% of the cases and diabetes mellitus in 20% of the cases. There was cognitive deterioration in 75.9% of the patients (slight in 42.6% of the cases and moderate in 22.2% of the cases). The type of dementia was vascular in 49% of the cases and Alzheimer's disease in 16.4% of the cases. The diagnosis at arrival was sepsis and/or shock in 58.7% (pneumonia in 38.2% of the cases, urinary tract infection in 14.6% of the cases), 14.5% of the cases presented brain thrombosis, 11% showed heart failure and 9.1% presented digestive bleeding. De novo acute renal failure was detected in 32% of the cases, and this finding showed a statistically significant association with the death of the patients ($p < 0.02$).15% of the patients were institutionalized and 3.6% of the patients had a feeding tube. The death rate was 21.8%, with no significant association with sex (p 0.52; OR 0.58). The cause of death was sepsis in 75.1%, and this factor had a statistically significant relation with the creatinine levels ($p < 0.05$; OR 0.5).

Conclusions: Our series reveals a high proportion of women of more than 100 years old, with vascular dementia, who survived a previous ictus, hypertense and diabetic, with a slight cognitive deterioration, who are not institutionalized and do not use a feeding tube, compared with other series that show a higher proportion of centenarian patients who are institutionalized, with gastrostomy feeding tubes and moderate or severe cognitive deterioration. Our centenarian patients, both men and women, die because of sepsis secondary to community-acquired pneumonia, and kidney failure is the only factor significantly associated with their deaths.

EA-25
DEVELOPMENT AND VALIDATION OF AN INDEX TO PREDICT MORTALITY OR READMISSION AFTER DISCHARGE FROM AN ACUTE GERIATRIC UNIT (AGU)

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Objectives: Acute hospital readmissions are frequent and costly and often preventable. The objective is to develop an index of risk of readmission or death within three months after discharge to help physicians identify patients who could benefit from a more intensive and coordinated intervention to avoid readmissions in acute hospitals.

Material and method: A prospective observational study of a cohort of patients over 70 years hospitalized for a medical condition in an AGU. A random selection of 70% of all patients discharged during the period January 2001 to December 2010 for the study of factors associated with mortality and readmission at three months and the development index. The remaining 30% of patients were selected for the validation study. We excluded patients who died during hospitalization and patients with metastases. Study factors: sociodemographic variables, comorbidities, geriatric syndromes, cognitive status, functional status (Barthel Index), nutritional status (Mini Nutritional Assessment), dysphagia, previous admissions in the last year, and hospital length of stay and laboratory. We recorded the mortality and readmission after discharge of three months. The variables associated with mortality and readmission at three months were included in multivariate analysis. The index included those variables with significant independent effect.

Results: We studied 2029 patients (61.0% women), mean age 84.8 (6.2) years. Mortality or readmission at three months was 36.6%. The validation cohort was 860 patients (mortality or readmissions at three months of 36.5%). The Index was constructed with a maximum of 9 points with the following 9 items: cancer, oropharyngeal dysphagia, ischemic heart disease, heart failure, chronic lung disease, anemia (Hb < 10), lymphopenia (< 800), number of previous admissions in the last year and hospital length of stay (more than 10 days). In the validation cohort, there was an area under the ROC curve of 0.647. In patients with an index of 0 points, mortality and readmissions within three months was 13.6%, those with an index between 0.5 and 1.5, 23.3%, those with an index between 2 and 3.5 points, 40.1%, those with an index between 4 and 5.5 points, 50.4% and in those who scored 6 or more points 75.0%.

Conclusions: The proposed prognostic index uses 9 easily identifiable risk factors at discharge, allows a stratification of patients over 70 discharged from AGU with low, medium or high risk of mortality or readmission to the three months. This index could be a useful tool to help clinicians identify patients who require a more intensive and coordinated intervention of care in the different settings.

EA-26
PREDICTING FUNCTIONAL RECOVERY IN ELDERLY HOSPITALIZED FOR AN ACUTE ILLNESS

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Objectives: The incidence of functional decline after hospitalization is a common complication, increases with age and is an indicator of poor prognosis. This decline can probably be prevented by adapting hospital units to the health needs of the elderly population. The objective is to identify those risk factors associated with functional recovery during hospitalization to help select and plan care during hospitalization and discharge.

Material and method: Prospective observational study of a cohort of patients over 70 years hospitalized for a medical problem in acute geriatric unit (AGU) for the period January 2001 to December 2010. We excluded patients with Barthel Index (BI) levels < 5 and those who died during hospitalization. Study factors: age, sex, origin, comorbidities, Charlson comorbidity index, discharge diagnosis, geriatric syndromes, cognitive status, nutritional status (Mini Nutritional Assessment) (MNA), handgrip, dysphagia, laboratory data (hemoglobin, serum albumin, cholesterol, and lymphocytes), and functional status: BI pre-admission, admission and discharge, and length of hospital stay. Functional loss was

defined as a decline of 5 points in BI at admission respect to pre-admission. Partial functional improvement was defines as an improvement of 5 points or more from admission to discharge and complete functional improvement as an improvement in BI at discharge that reach the BI score pre-admission (± 5 points). The variables associated with functional recovery were included in a multivariate analysis.

Results: We studied 2224 patients (61.9% women) with a mean age of 85.1 (2.8) years. 49.5% were over 85 years. The pre-admission, admission and discharge BI were 72.0 (24.8), 42.2 (26.0) and 57.0 (28.5) respectively. The length of hospital stay was 10.9 days (7.7). The functional recovery was: No recovery 572 cases (26.1%), partial recovery 1130 cases (51.6%) and complete recovery 489 cases (22.3%). The independent variables associated with complete recovery were: age (< 85 years) (OR: 0.71; 95%CI: 0.51-0.98), chronic lung disease (OR: 1.46; 1.05-2.01), loss of BI at admission (respect to pre-admission) under 40% (OR: 2.08; 1.46-2.96), handgrip (> 18 kg in men and > 9 kg in women) (OR: 0.59; 0.42-0.83), and hospital days (OR: 0.94; 0.91-0.97).

Conclusions: We identified some factors associated with functional recovery of elderly patients during hospitalization in an AGU, such as age, chronic lung disease, pre-admission functional capacity, hand grip or days of hospital stay. Attention to these factors can help to improve functional capacity at discharge.

EA-27
HOSPITAL DEATHS IN CENTENARIAN PATIENTS

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Objectives: Life expectancy at all ages has continued to increase in other countries. Nowadays, the centenarian patients are a particular and little-known group. There is not much information about hospital mortality in these patients. We propose to know the survival after hospitalization in the centenarians in CAZA (Complejo Asistencial de Zamora).

Material and method: Retrospective, observational study of patients ages 100 years and older who died in CAZA (Complejo Asistencial de Zamora) during the last four years. We reviewed the medical records of these patients and analyzed the next data: age, sex, length of stay, admission service and diagnosis.

Results: 27 centenarians died in the study period: 6 (4 female/2 male) in 2008, 7 (6 female/1 male) in 2009, 9 (6 female/3 male) in 2010 and 5 (female) in 2011. The mean age was 101.4 years (range 100 to 107 years). There were 21 women (78%) and 6 men (12%). The mean length of stay was 9.1 days. The admitting services were: Internal Medicine 24 patients (88%), Neurology 1 centenarian (4%), Traumatology 1 patient (4%) and Intensive Care Unit another patient (4%). See Table 1.

Discussion: There is not much information about centenarian patients in the papers. The results of our study show: a high mean age (101.4 years) and women die more. Respiratory infection is the first cause of death in our study. Although hip fracture is important cause of admission in other publications, it´s no relevant in our paper. We have also found a great variety of diagnoses.

Conclusions: 1. Centenarian women die more than men in the hospital during the last four years. 2. High mean age (101.4 years). 3. Respiratory infection is the first cause of death in our centenarians.

EA-28
CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND LUNG CANCER: A COMMON ASSOCIATION

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Objectives: Chronic obstructive pulmonary disease (COPD) and lung cancer have a strong relationship. The aim of this study is to describe epidemiological and clinical characteristics of the patients with both diagnosis of COPD and lung cancer.

Material and method: We performed a retrospective analysis of COPD patients diagnosed with lung cancer between 2009 and 2010 in a tertiary hospital. We described: epidemiological characteristics such as age, sex, comorbidities, number of smoking pack-years, occupational exposure; COPD features such as phenotype, forced expiratory volume in 1 second (FEV1%), carbon monoxide diffusing capacity (DLCO) and Global Initiative for Chronic Obstructive Lung Disease (GOLD) stage; lung cancer characteristics such as histology, stage and follow up.

Results: We recollected data about 61 patients. Fifty nine of them were male (96.7%), with a mean age (standard deviation) of 67.2 (9.8) years. Regarding underlying diseases, the patients had a mean Charlson Index of 2.6 (2.5). Seventeen patients (27.9%) presented history of another malignancy. Among them, 7 tumours (38.9%) were tobacco-related: tongue, larynx, esophagus, urinary bladder, lung and kidney (2). All the patients had history of tobacco smoking: 41 (67.2%) were ex-smokers. The mean number of pack-years smoked was 62.3 (28.9). In 13 cases (26.5%) there was also history of occupational exposure. COPD phenotypes were: chronic bronchitis/frequent exacerbator 29 (47.5%), emphysema 21 (34.4), asthma-COPD 7 (11.5%), others 4 (6.6%). FEV1% and DLCO mean values were 67.3% (21.1) and 70.8% (17.0), respectively. About GOLD stage, 20 patients (32.8%) were in GOLD I, 27 (44.3%) GOLD II, 7 (11.5%) GOLD III, 7 (11.5%) GOLD IV. Regarding lung cancer histology, it was available in 58 cases and all were non small cell lung cancer: squamous cell carcinoma 32 (55.2%), adenocarcinoma 14 (24.1%), large cell carcinoma 4 (6.9%), other types 8 (13.8%). We registered a higher proportion of squamous cell carcinoma (72.7%) among patients with GOLD stage III and IV. Thirty eight patients (64.4%) were diagnosed in early stage (I and II), 11 (18.6%) in locally advanced stage, 10

Table 1 (EA-27). Main diagnosis

	Number of patients
Respiratory infection	10
Sepsis	4
Heart failure	3
Stroke	3
Gangrene	2
Hip fracture	1
Dehydration, neoplasia, renal failure, myocardial infarction	1, 1, 1, 1.

(16.9%) in metastatic stage. About treatment, 34 patients (55.8%) received surgery, in 9 cases with adjuvant chemotherapy, 8 (13.1%) combined radiotherapy and chemotherapy, 5 (8.2%) radiotherapy alone, 5 (8.2%) chemotherapy alone, 9 (14.8%) palliative care. Follow up was available in 36 cases: at the moment of the study (mean follow-up time of 16 months) 17 patients (47.2%) died and 4 (11.1%) were in progression disease, whilst 11 (30.6%) were disease-free and 4 (11.1%) in partial response or in stable disease. Stratifying by GOLD stages, we didn't find significant differences in cancer stages, but we did find in clinical outcomes: GOLD stage III and IV were associated with higher rate of progression disease and mortality (90.9%).

Discussion: Our study is characterized by a low proportion of women, probably related to the smoking trends in Spain, with women massively exposed after 1950s. Of special interest is the high prevalence of other malignancies among our patients, confirming the increased cancer risk among COPD patients recently reported by other authors. In agree with previous observations, most of the patients (77.1%) were in milder GOLD stages. The most frequent tumour type was squamous cell carcinoma. Its prevalence was greater among patients with more severe GOLD stages. No case of small cell lung cancer was registered in our study population. A great proportion of patients was diagnosed in early stages and received surgical treatment. COPD patients with more severe GOLD stages had worse outcomes despite presenting no differences in cancer stages with those with milder GOLD stages.

Conclusions: COPD and lung cancer are frequently associated. Lung cancer occurs more frequently in patients with milder airflow obstructions and the most prevalent histological type is squamous cell carcinoma.

EA-29
NUTRITIONAL ASSESSMENT OF PATIENTS IN A WARD OF INTERNAL MEDICINE

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Objectives: Assess the nutritional profile of inpatients in a ward of internal medicine. Check the consistency between the various methods used. Assess the weight variation during hospital stay.

Material and method: All inpatients were evaluated by two examiners. Measured the weight, height, tricipital (TSF) and subscapular (SSF) skinfolds, brachial circumference (BC) and calf circumference (CC). Each parameter was rated 2 times, taking into account the tolerance values for the discrepancy between measurements of skin folds and calculated the mean. The weight and the height were estimated by Chumlea formulas when it was not possible to evaluate them. The ideal weight was calculated by the Lorentz formula when the patient didn't mentioned his initial weight. Patients unable to undergo the anthropometric methods were excluded. The results are presented with mean and standard deviation, maximum and minimum. Patients were classified according to WHO's Body Mass Index (BMI) criteria. Material used: tape measure, scale, Harpender skinfold caliper, properly calibrated.

Results: Assessed 28 patients with an mean age of 76 (± 13.73, Max 97, Min 39). The BMI was 20.8 Kg/m^2 (± 4.13, Max 29.1, Min 11), with 16 patients in the normal weight category, 3 overweight and 8 underweight. The mean weight variation was 18.2% (± 9.8, Max 37.8%, Min 1.6%), 4 patients showing weight increase and the remaining weight loss. The mean weight loss was 13.7 Kg (± 5.08, Max 25.2, Min 4.9). Individuals with normal BMI or underweight, had all TSFs and BC under reference values, with the exception of 3 patients (1 with normal, another with TSF above average and another with normal BC).

Discussion: Although most patients have a normal BMI, almost all patients had weight loss. Most patients with normal BMI presented TSF and BC below the average of reference values, which may be related to the fact that 12 had pathologies with predisposition to the formation of edema.

Conclusions: We found that BMI may not adequately reflect the nutritional status, particularly if used alone. The prevalence of weight loss is high among inpatients. Further studies are needed in order to identify the right methods to assess nutritional status and to identify the reasons and consequences of weight loss.

EA-30
EPIDEMIOLOGICAL STUDY OF LOWER GASTROINTESTINAL BLEEDING IN THE PATIENTS ADMITTED IN THE INTERNAL MEDICINE I UNIT OF THE CLINICAL HOSPITAL OF SALAMANCA IN A PERIOD OF 3 YEARS

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Objectives: Retrospective study of patients with a diagnosis at arrival was lower gastrointestinal bleeding (LGIB), who were admitted in the Internal Medicine I Unit in a period of 3 years, in order to establish their clinical and biological characteristics, age, sex, associated diseases, gastroerosive drug use, impact of the bleeding and death rate.

Material and method: We gathered the clinical records of all patients with LGIB diagnosis from January 2009 to December 2011 which included complete anamnesis, complete blood count, use of erosive medication, symptoms, duration and impact of bleeding, gastroscopy and/or colonoscopy, indication of CT scan and/or arteriography, diagnosis and death. The duration of the bleeding was classified as acute (less than 3 days) and chronic and/or continuous (days or weeks). The impact of the bleeding was classified as: slight: < 15% or between 500-750 ml; moderate: 15-25% or 750-1,250 ml; severe: 25-35% or 1,250-1,750 ml; and massive: > 35% or > 1,750 ml. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: 101 patients were analyzed, and 27 were ruled out because they did not meet the requirements. Out of the remaining 74 patients, 51.4% were women with an average age of 86 years and 48.6% were men with an average age of 79 years. In 43% of the cases, no associated disease was found. 45.9% of the patients did not receive iatrogenic medication, while 37% received antiaggregants (58% of the women) and 13.5% received anticoagulants. A decrease in the hemoglobin levels revealed a significant relation with age (higher in women $p < 0.019$), with the use of iatrogenic medication ($9 < 0.24$) and with the associated diseases ($p < 0.013$). The main symptom at presentation was rectorrhagia in 79.7% of the cases (85% of the women), and the bleeding was acute in 90% of the cases. The colonoscopy was diagnostic in 86.5% of the cases: diverticulosis in 23.5% of the cases (87% of the women), hemorrhoidal varices in 20.3% of the cases (67% of the women), colon neoplasia in 9.5% of the cases, and ischemic colitis in 5.4% of the cases. The CT scan was not performed in 77% of the patients. The bleeding had no impact in 54% of the cases.

Conclusions: Patients with LGIB admitted in the Internal Medicine I Unit are elderly women who receive platelet antiaggregants and/

or anticoagulants as iatrogenic factors, with acute rectorrhage secondary to diverticulum and/or hemorrhoidal varices as the main symptom, without significant hemodynamic impact. We can highlight the profitability of colonoscopy in the diagnosis of lesions that cause LGIB, probably due to the presence of an endoscopist in our internal Unit and our hospital, which makes it possible to obtain an early diagnosis. There is a remarkably low number of colon neoplasias in our series.

EA-31
EPIDEMIOLOGICAL STUDY OF THE PATIENTS WITH ACUTE CEREBROVASCULAR ACCIDENT (ACV) ADMITTED IN THE UNIT OF INTERNAL MEDICINE I IN THE CLINICAL HOSPITAL OF SALAMANCA IN A PERIOD OF 3 YEARS

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Objectives: Retrospective study of patients with a diagnosis at arrival of acute cerebrovascular accident who were admitted in the Unit of Internal Medicine I in a period of 3 years (from January 2009 to January 2012) in order to determine the kind of ACV (hemorrhagic, thrombotic), the clinical and biological characteristics, age, sex, associated diseases, degree of dementia according to Barthel's Index, complications and death rate.

Material and method: We reviewed the clinical records of all the patients with a diagnosis at arrival of ACV from January 2010 to April 2012 which included complete anamnesis, associated diseases, EKG, thorax X-ray, CT scan and/or brain NMR, diagnosis, treatment at discharge and death. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: 201 patients were analyzed, and 19 of them were ruled out because they did not meet the requirements in the "Material and method" section. Out of the 182 remaining patients, 57.1% were women with an average age of 85 years and 42.9% were men with an average age of 83 years. No associated diseases were found in 43% of the patients. 62% of the patients presented normal sinus rhythm, with no statistically significant differences regarding sex, but significant with ACV emboli and alteration of rhythm ($p < 0.001$) In 34% of the cases there was some alteration in the rhythm (31% presented auricular fibrillation and 2.4% presented flutter). Some degree of dementia was observed in 18.7% of the patients. 46% of them had a personal record of arterial hypertension, 24% were diabetics, 23% had suffered a previous ACV, ischemic cardiopathy was found in 15.2%, and in 34% of the patients there were more than 2 different diseases in their personal records. The diagnosis at arrival was ischemic ictus in 93% of the cases and hemorrhagic ictus in 6.6% of the cases. 18% of the patients were anticoagulated, with INR > 2.1, with no statistically significant relation with the presence of hemorrhagic ictus. 40% of the patients received antiaggregants (58% of the women). In 57% of the women there was some complication (20% were respiratory complications), and 19.2% of the patients died, with no statistically significant relation with sex.

Conclusions: Patients admitted in the Unit of Internal Medicine I with ACV are generally women of a very advanced age with a personal record of previous ACV, hypertense and diabetic, with non-cardioembolic stroke, who receive platelet antiaggregants. Exists on relation of 34 times more of cerebral embolism on the person with atrial fibrillation. The ACV is mainly complicated due to respiratory infections, and it presents a high death rate.

EA-32
THE JOINT CHRONIC DISEASE PATIENT PROGRAM (CP) OF THE HEALTH DEPARTMENTS OF ELCHE-CREVILLENTE AND TORREVIEJA

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Objectives: Due to progressive ageing of the population, the number of chronic disease has increased. Such patients require complex care and use a high percentage of socio-health resources. Thus, a different management model is required to ensure continuity with a multidisciplinary approach to improve quality of healthcare. Consequently, the Health Departments of Torrevieja and Elche-Crevillente have conceived a comprehensive chronic disease patient management pathway between Primary Care (PC) and Hospital Care (HC).

Material and method: The Chronic Program has been conceived to monitor chronic disease patients, both globally and at all levels of the Kaiser pyramid in order to avoid patients moving up to another level. "+Health" (in Spanish, +Salud) is a preventive healthcare program to be carried out at Primary Care by the Nursing team that will focus on women, teenagers and adults' healthcare prevention and vaccination. Workshops will also move towards the same direction: to train caregivers, promote self-care and prepare informed patients. Multidisciplinary working groups composed of PCP (Primary Care Physicians), Hospital Specialists and Nurses are generating action protocols, based on Clinical Practice Guidelines, of most common diseases (heart failure, cirrhosis, chronic bronchitis, chronic liver disease, HIV, cardiovascular risk, chronic kidney failure, arthrosis, cancer or degenerative pathology) for the monitoring of patients at levels I and II of the Kaiser pyramid. The CP has developed a pathway to ensure care continuum for those complex patients at the pyramid's apex or level III. Such patients have to meet at least one major inclusion criteria (a diagnostic category in the multiple-condition criteria in Andalusia) and two minor ones (age: > 75, multi-medication: > 12 drugs, Barthel index: < 60 and frequent hospital user: > 6 admissions and/or 10 ED visits in 2011). Management groups have been formed in each Health Centre composed of a Liaison Internist (LI), half the PCPs, a Case Managing Nurse (CMN), a Social Worker (SW) and a Community Nurse (CN). The management groups meet once a week to revise each PCP's complex patients and to devise an individual treatment pathway in order to ensure care continuum via on-line PC-HC referrals on their own Florence EMR system (shared Electronic Medical Record system for PC and HC) and telephone follow-up. In both Health Depts. admissions take place in Internal Medicine, a feature that allows for a proactive and fast identification of patients likely to enter the program. Thus, the Liaison Hospital Nurse (LHN) can notify the SW and the LI as well as include the patient in the CP on "Chronic Patient", the specific Florence episode, and, prior to discharge, may schedule appointments with the PCP and the CMN. In the future, an alert will be issued addressed to the PCP or the LI in case of hospital readmission. A Call Center has also been envisioned in order to follow up with patients via standardized calls and provide information support to patients. Soon begin a pilot program for telemonitoring.

Results: Using the Florence program we have stratified the population and obtained 500 Level-III patients in each Dept. The CP started with the continuous assessment of home visits, ED visits, hospital admissions, phone calls, avoided costs as well as patient,

caregiver and professional satisfaction. Our process indicator is the pharma-therapeutical revision (REFAR). Indicators at the beginning show 1017 readmissions and 2007 ED visits.

Conclusions: The program is an efficient tool for the correct diagnosis, treatment and follow-up of chronic disease patients from a multidisciplinary point of view. Our aim is to improve quality of healthcare and reduce resource consumption.

EA-33
EMERGENCY DEPARTMENT USE BY EXTREMELY ELDERLY PATIENTS (NONAGENARIANS)

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Objectives: To document presentation characteristics, use of resources, diagnosis, outcomes and length of stay of very elderly patients in an emergency department (ED) metropolitan hospital.

Material and method: A review of medical records was carried out for all patients aged more than 89 years presenting to ED (medical and traumatology wards) over two randomly 30-day periods: period A in summer (July 1st-30th 2011) and period B in winter (January 1st-30th 2012). It was conducted to identify demographic features, main admission symptom, medical history, physical dependency (defined as Barthel score less than 100), request for laboratory tests or X-ray examination (thoracic, abdominal or skeletal), diagnosis, consequences, length of time spent in ED (minutes) and re-visit in a 30-day period. Descriptive and analytical research methods were used. Qualitative variables were expressed as frequencies (percentages) and quantitative variables as medians (25th and 75th percentiles). Statistical analysis was performed using non-parametric tests and a two-tailed p value less than or equal to 0.05 was considered statistically significant.

Results: One hundred and seventy one subjects were included in the study, this means 1.25% of the total who were attended in those periods of time; 112 (66) females and 59 (34) males. The median age of patients was 92 (90-94) years and the period A to period B ratio was 1:1.7. The most common admission symptoms were: cardiorespiratory 47 (38), musculoskeletal 35 (21) and abdominal 24 (14). Hypertension was the most frequent cardiovascular risk factor: 120 (71), more often than diabetes: 44 (26). Ninety eight (58) patients used any antiaggregant drug, from which 89 (91) was acetylsalicylic acid. One fifth of patients had atrial fibrillation, nevertheless only 10 (6) of them were anticoagulated (8 (80) used acenocumarol). The number of patients receiving drugs to protect against acute gastric mucosal lesions was 116 (69), mostly proton pump inhibitors 110 (95). Ninety five (59) patients suffered from any level of physical dependence, as well as 64 (38.6) were already diagnosed as having dementia. Laboratory blood tests were ordered in 121 (71) subjects and X-ray examinations in 139 (81.3); 97 (57.1) patients were taken a chest radiography. The diagnosis made by ED physicians were respiratory infection in 38 (22) patients, wound or contusion in 18 (10.5) and urinary tract infection in 15 (8.8) of them. Fifty (29) patients were hospitalized: period A 15 (24) and period B 35 (32); no statistically significant difference. The median of time spent in ED by a patient was 240 (130-379) minutes: male 279 (148-490) vs female 213 (117-354); p = 0.02. Length of time spent by patients when a laboratory blood test was required was 310 (197-439) and when the subject was submitted to a chest radiography was 314 (186-439). There was no significant difference in the duration of the stay when it was compared among patients who suffered from physical dependence (272 (130-391)) or dementia (275 (144-409)) and those who did not. Forty (23) subjects re-visited the ED in a 30-day period, 35 (68) of them consulted for the same symptoms.

Discussion: Within the proper limits of study design (retrospective, deficiency in contents of the medical records), summer and winter random series of very elderly patients visiting our ED were described. This improves knowledge and therefore care of these patients.

Conclusions: We found in this survey that very elderly patients attended are mostly female and hypertensive. More than a half are receiving antiplatelet therapy, with cardiorespiratory and musculoskeletal as predominant disorders and a high incidence of subjects who suffered from physical dependency were assisted. Complementary exams were required in most of cases, the time spent in the ED by male was significant longer than female and nearly a quarter of patients consulted again in a 30-day period.

EA-34
ASSESSMENT OF THE INTEGRATED CARE PLAN FOR POLYPATHOLOGICAL PATIENTS IN BAJO DEBA AREA

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Objectives: 1. The global objective is to modify the natural course of disease, delaying its progression and improving healthstatus in patients with multimorbidity of the region of Bajo Deba. 2. To describe de program, the activities established and initial results.

Material and method: Investigation-action project. To achieve the objective of establishing an Integrated Care Plan (ICP) of polypathological patient, different levels of care (Primary Care and Specialty Care) are covered such as different professional groups (medical and nursing) involved. This process rests on the circuit of communication and the relationship established between levels and coordination between states. The main principles of the model are: 1. Identification and risk stratification of the polypathological patients. 2. Polyphathology criteria. 3. Integral evaluation and individualized care program. 4. Reference internist sectorization. 5. High resolution outpatient setting. The five Primary Care Centres belonging to our Speciality Care Hospital have been progressively included during one year. We present the analysis of patients included from March 2011 to May 2012 of one of the centres. The main health outcome variables studied are mortality, days of hospital admission, Barthel, Tinetti, Lawton and Brody and social-familiar Gijon Index and well as anthropometric and analytical variables.

Results: A total of 183 patients have been included in the 14 months of plan developing with 127 hospitalizations (in the first 8 months patients were recruited, if fulfilled polypathology criteria, from hospital, adding patients from Primary Care later on). 44.3% are females and the mean of age is 79.8 years. The median polypathology criteria is of 2 and 6.5% of patients fulfil 5 criteria. The main three chronic diseases are COPD, chronic heart failure and chronic renal failure. 28% present a moderate rate of dependence (Barthel) with high risk of fallings in 69% of patients (Tinetti). Social risk (Gijon) is determined low in 48% and 58% have instrumental management capacity (Lawton Brody) reduced. 77% require carers, husband or wife in 38% of them. The mean of hospital stay is 8 days. 86 consulting phone calls have been registered with a satisfactory communication and relationship between both levels (Primary and Speciality Care). 36 patients have been followed by outpatient setting (Day Hospital, High resolution outpatient), and 16 evaluated in the Emergency Room avoiding in all of them the hospitalization. One clinical meeting is hold monthly with an average attendance of 10 doctors and 5 nurses.

Discussion: Preliminary results are positive. However, more study time is necessary to draw general conclusions. The results will help

us with risk dependent intervention stratifications and integral evaluation and individualized care program offer, establishing global strategic objectives in the polypathological patient assistance.

Conclusions: The increased prevalence of chronic diseases and the consequent increase in the number of patients with multiple chronic conditions makes it necessary to establish a new model of shared care intervention among primary care and specialty care. The establishment of a model of this type should have a significant beneficial impact on morbidity and quality of life related to health in this patient population.

EA-35
LENALIDOMIDE IN COMBINATION WITH DEXAMETASONE IS ACTIVE AND SAFE IN ELDERLY PATIENTS WITH MULTIPLE MYELOMA IN RELAPSE OR REFRACTORY

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Objectives: Lenalidomide is an oral immunomodulatory drug that with proved efficacy on increasing response rates and survival in relapsed or refractory multiple myeloma (MM), used in combination with dexametasone (L/D). In unselected patients, the results in terms of efficacy and toxicity may be different from those obtained in controlled studies. Our objective was to evaluate the efficacy and toxicity of L/D as rescue therapy in a unselected population of relapsed or refractory MM patients.

Material and method: All the patients with MM followed in our department from January the 1st 2007 to January the 31st 2012 were reviewed. We analyzed the patients with relapsed or refractory disease after one or more therapeutic regimens who received treatment with L/D. Informed consent was obtained in every patient, and anti-thrombotic prophylaxis with low molecular weight heparin routinely prescribed. Treatment was continued until the occurrence of disease progression or unacceptable adverse events. Efficacy variables were response rate and time to progression (TTP). Complete response (CR) was defined as the disappearance of both monoclonal serum protein (tested by IF) and urinary component. Partial response (PR) was defined as a 50-99% monoclonal serum protein reduction and 90% reduction in urinary component, whereas non response (NR) was defined by an inferior reduction or progression. Response was assessed after at least one L/D treatment course. Toxicity WHO scale was used as a safety measure. Statistical methods: descriptive, chi^2, Fisher exact test, Kaplan-Meier tables, log-rank test and Cox binary logistic regression.

Results: Twenty-two patients were included, with a median age of 76 years (47-86) and 68% of them were 70 or more years old. The median time from diagnosis was 4.1 years (0.3-20), and median number of prior therapies 4 (1-13). Forty-five per cent had previously undergone an autologous stem cell transplantation (ASCT), 91% had been treated with bortezomib and 23% with thalidomide. The reason for therapy with L/D was relapse in 12 cases and refractoriness to prior therapy in 10. The median duration of treatment with L/D was 3.8 months (0.13-51). Twenty-one patients were assessable for response: 4 obtained CR, 13 PR (CR + PR: 81%) and 4 NR. Eighteen patients relapsed in the follow-up. The median TTP from the beginning of L/D was 18.6 months and the median survival 27.5 months. We analyzed the association of age, functional status, reason for therapy, previous ASCT, number of previous therapies, and time to treatment with L/D with response to treatment and TTF, but none of them was significantly associated. Overall survival, functional status and reason for therapy were near to statistical significance (p: 0.06). Most common toxicity was hematological (neutropenia or thrombocytopenia grade 3 or 4) in 13 patients, and it was significantly associated with a higher number of prior lines of therapy (p: 0.078) or previous ASCT (p: 0.015). With of the Cox binary logistic regression only previous ASCT remained significant. Four patients had non-hematological toxicity grade 3, and this was related to previous ASCT previous (p: 0.0082).

Discussion: : L/D as salvage therapy in refractory/relapsed MM showed, in this series of heavily pre-treated and elderly patients, similar efficacy to that reported in pivotal clinical trials in this setting with acceptable tolerance. The response and the TTP was not related with age therefore this therapy seems a good option for aged MM patients relapsed or refractory.

Conclusions: In our experience, the combination L/D has a remarkable efficacy in response rate and TTP in relapsed and refractory MM patients, even in elderly and previously multi-treated patients. Adverse events were mostly hematological and controllable. The only significant variable related with the toxicity was prior ASCT.

EA-36
IMPACT OF POVERTY ON HEALTHCARE DEMAND FOR A HOSPITAL-AT-HOME UNIT OF A SOUTHERN EUROPEAN IN A 25-YEAR PERIOD

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Objectives: It is well known that social disadvantage associates to poorer healthcare outcomes. Objectives: To determine the areas with higher impact of social exclusion on healthcare demand for a hospital-at-home unit during a 25-year period.

Material and method: Since 1984 to 2010, all consecutive patients admitted to a hospital at home unit affiliated to a southern European university hospital were included. Patients were classified for place of living (city districts). The total amount of patients and their percentages, and the population of the respective districts are exposed below.

Results: 11,342 patients were attended in the study period. The population of the Hospital Universitario Virgen del Rocío accounts for 550,000 inhabitants among the population of Seville: District 1 (Centre) 47,524 inhabitants (8.64%), Districts 4 and 5 (Nervión) 86,564 inhabitants (15.74%), District 6 (Amate, Candelaria, La Plata, Palmete) 82,871 inhabitants (15.07%), District 10 (Triana) 43,361 inhabitants (7.88%), District 12 and 14 (Bermejales y Bellavista) 33,692 inhabitants (6.13%) and District 13 (Polígono Sur) 29,235 inhabitants (5.32%). The healthcare demand per district was as follows: District 1 (Centre) 782 patients (6.90%), Districts 4 and 5 (Nervión) 1,305 patients (11.51%), District 6 (Amate, Candelaria, La Plata, Palmete) 2,476 patients (21.83%), District 10 (Triana) 1,426 patients (12.57%), Districts 12 and 14 (Bermejales y Bellavista) 458 patients (4.04%) and District 13 (Polígono Sur) 1,642 patients (14.48%).

Discussion: Thus, Districts 6 and 13 almost doubled the expected demand (expected/actual = 21/39%), those with the worst economic incomes and poorer infrastructures in Seville, while richer Districts, 1, 4 and 5, had an inverse relationship (expected < actual demand). This evident asymmetry is clearest for the district Polígono Sur (district 13, population/demand 5.32/14.48%), which exceeds by almost three times the expected percentage of demand. Socioeconomic status has been well addressed in Polígono Sur (source: Plan Integral del Polígono Sur, Delegación del Gobierno en Andalucía y Ayuntamiento de Sevilla. 2004). This area is the poorest of the city, having extensive social exclusion, illiteracy rates, school abandon percentages, unemployment (40%) and scarce economic resources, drug abuse and delinquency, weak social networking and even scarce public services. Many flats often have architecture

barriers (no lift, no ramps, small rooms). Of these people, about 65% live with limited social benefits, accounting for the 34.4% of the economic resources. Commonly these homes receive only one salary (retirement 26%, invalidility pension 21%, widow's pension 16%, unemployment benefit 12%). The life expectancy is the lowest in Seville, 70.1 years among men and 81 years among women, higher in comparison with the other districts: 74.6 and 82.3 years, respectively. The incidence of chronic conditions doubles the incidence in other Seville districts (COPD, gastric or lung cancer, infectious diseases) or even more (AIDS). Mortality rate exceeds 1.4 times those from other Seville areas. Some of these features are shared by districts 6 and 10, although in a lower degree. Richer districts (areas 1, 12 and 14) showed lower healthcare demands than expected by population rates.

Conclusions: An excessive healthcare demand is related to social exclusion and poverty, present in several areas of Seville.

EA-37
USE OF OXYGEN THERAPY IN NON COPD PATIENTS

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Objectives: Usually the domiciliary oxygen is used in COPD apcientes when exist respiratory failure. The objective of this study was to determine the diseases that need domiciliary oxygen in non COPD patients, that we treated in a unit of Internal Medicine.

Material and method: We conducted a retrospective study, period of 3 years, with the patients admitted in a unit of M. Internal. We used a database which extracted coded patients that in the discharged needs the treatment with oxygen domiciliary. Of these patients medical history is reviewed and discarded patients with COPD. Patients who are selected for the study we collect demographic data, previous diseases, the cause of hospital admission and discharge diagnoses.

Results: We have studied a total of 1358 patients of which 159 have oxygen at home. We discarded patients with COPD as underlying disease to administer oxygen, the result was 41 patients with different diseases. The advanced tumor disease was 34% of cases, 27% cor pulmonale, pulmonary hypertension (primary and secondary): 20%. Interstitial lung disease: 19% of all.

Conclusions: 1. The main cause of indication of domiciliary oxygen is COPD. 2. Other diseases, are also, less common, cause of home oxygen therapy indication. In our experience highlights a large number of patients presenting tumoral processes and needs oxygen on the treatment. Emphasizes in an important way patients with chronic cor pulmonale. Usually we associate parallel the domiciliary oxygen in COPD. It 's necessary to know other conditions requiring domiciliary oxygen and is necessary the control their respiratory failure. The appropriate use of chronic oxygen therapy on an outpatient basis affects the quality of life and survival of these patients.

EA-38
RELEVANCE OF AN INTERNIST ASSIGNED TO A TRAUMATOLOGY WARD

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Objectives: To assess if the provided care for an internist assigned to a traumatology ward reflects an improvement in the quality of care of patients hospitalized for hip fracture, trying to reduce the morbidity and mortality.

Material and method: Quasi-experimental study of patients over 65 years with osteoporotic hip fracture who are tracked for 1 year (2009) from the date of admission. The control group is a historical cohort of patients admitted for the same reason in the previous year.

Results: We collected 633 patients being 273 (43.1%) belonging to the prospective group. In gender distribution of cases were 509 women. The average age was 84.21 (SD ± 6.77). There were no statistical differences in both groups on these variables. The average stay was higher in the prospective group (18.48 vs 16.95) ($p = 0.77$) Comparing deaths during hospitalization, it was a lower percentage in the monitoring group 6.2% versus 10.3% in the control group ($p = 0.08$). If we refer to the mortality just one month discharged from the hospital, it was 2.5% in the prospective versus 5.4% ($p = 0.12$). In relation to mortality at 3 months after leaving the hospital it was 1.4% versus 3.1% ($p = 0.23$). In the evaluation of early readmissions (which are those readmitted after the first month out) in the prospective group were readmitted less by 6.4% compared to 9.4% of the retrospective ($p = 0.16$).

Discussion: Hip fracture is the most important reason for the admission in the traumatology ward. They are elderly patients and they have significant comorbidity and a high risk of developing complications during hospitalization stay, by what will often require an assessment by an internist physician. There are various studies that support the benefit of the assessment and follow-up during the hospitalization stay of these patients by the internal medicine staff, mainly to reduce the mortality and average length of stay (Montero Ruiz et al.). Our study shows a trend to reduction in mortality (similar to the one described in the other studies), especially during hospitalization and the mortality just one month discharged from the hospital. The average stay shows no difference between the two groups. This could be related with the delay in the operation room.

Conclusions: The role of the internist assigned to a traumatology ward shows a clear tendency to decrease mortality and early readmissions in patients with hip fracture. Apparently it does not influence significantly in a decrease in the length of stay.

EA-39
CAREGIVER PERCEIVED QUALITY OF PATIENTS WHO DIED IN A UNIVERSITY HOSPITAL. ROLE OF A PALLIATIVE CARE UNIT

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Objectives: Most western world deaths occur in acute hospitals and are predictable generally. Studies have shown that patients who die and their families have an inadequate satisfaction of their needs. Objective general: to evaluate the effectiveness of a Palliative Care Unit in the quality of care in the last days of life of patients and families, comparing those who died in the Unit with Internal Medicine and Oncology. Specific: To compare the primary caregiver perceived quality.

Material and method: Design: observational, retrospective, cohort study. Subjects: patients died in Palliative Care Unit (PCU), or in Internal Medicine or Oncology (Non-PCU); consecutively included. Protocol: a) Retrospective review of medical record. b) Caregiver perceived quality study by telephone interview between 7th and 15th day after death.

Results: We included 166 patients who died between 01/10/09 and 27/02/10, bellowing 66 to PCU cohort and 100 to Non-PCU (51 from Internal Medicine and 49 from Oncology). The mean age (SD) was 68 (13.6) and 72 (14.7) years, respectively, without differences between both cohorts. 53% were male in the whole sample. The primary caregiver mean age (SD) was 57 (13.9) years and 69% were female; there were no significant differences between both groups. On a scale of 0 to 10, the average overall satisfaction with the care provided was 9 in PCU and 8 in Non-PCU ($p < 0.01$).

Conclusions: Primary caregivers of dying patients cared in a Palliative Care Unit have a higher overall satisfaction regarding the perceived quality of care received in the last days of life.

EA-40
DIFFERENTIAL FEATURES OF THE POLYPATHOLOGICAL PATIENTS ADMITTED TO INTERNAL MEDICINE OR ACUTE CARE GERIATRICS UNITS: PLUPAR STUDY

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Objectives: To determine the differences between PP admitted to Internal Medicine wards (IM) and acute Geriatrics (G) units.

Material and method: PLUPAR (Paciente PLUriPatológico en ARagon) study is an observational, prospective, multicenter study participated in by 13 hospital centers throughout Aragon (Spain). PP admitted to an IM or G department and attended by investigators consecutively between March 1 and June 30, 2011 we included. Readmissions and patients who died during the hospìtalization were excluded. Data registered included age, gender, living in nursing residence or at home, disease category diagnosis, number of chronic drugs on admission, Charlson index, Barthel index, Lawton-Brody index, Pfeiffer questionnaire, socio-familial risk Gijón scale, number of admissions in the previous year, delirium in the previous admission, need for a caregiver, having a caregiver and PROFUND index. The need of a caregiver was defined when the Barthel index was < 60 or Pfeiffer questionnaire ≥ 5 errors.

Results: There were 1,870 hospital admissions, 1,466 to IM and 404 to G units. 30.8% in IM and 44.0% in G were PP. Finally we included 471 PP. Patients in G were older and more frequently women. Heart (62.9% and 49.2%; $p = 0.006$), digestive (8.0% and 3.0%; $p = 0.047$) and oncohematological diseases (30.0% and 18.7%; $p = 0.01$) were more frequent in patients of IM units and neurological (41.2% and 65.7%; $p < 0.0001$) and degenerative osteoarticular diseases (20.8% and 37.3%; $p = 0.0002$) in patients of G units. There was no difference in number of disease categories but Charlson index was higher in patients of IM (4.0 ± 2.1 vs 3.5 ± 2.1; $p = 0.04$). Heart failure, myocardial infarction, diabetes with target organ damage and severe liver diseases were more frequent in patients of IM and dementia, hemiplegia and peptic ulcers were more frequent in patients of G units. Patients of G have more cognitive impairment (Pfeiffer questionnaire 5.5 ± 3.7 vs 3.8 ± 3.3; $p = 0.0008$), more dependence on basic (Barthel index 38.8 ± 32.5 vs 60.6 ± 34.7; $p = 0.0009$) and instrumental activities for daily living (Lawton-Brody index 0 9 ± 1.6 vs 3.0 ± 2.9; $p = 0.0007$), and more frequently needed a caregiver (87.8% vs 53.6%; $p < 0.0001$) and had it.. Also more frequently they had a caregiver. Delirium was more frequent in G patients (30.1% vs 170%; $p = 0.002$). Although patients of IM units were hospitalized more frequently in the previous 12 months (2.1 ± 1.4 vs 1.8 ± 1.1; $p = 0.03$), there was no difference in the number of chronic prescribed drugs (8.3 ± 3.4 vs 8.1 ± 3.6; $p = 0.41$). The PROFUND index score is higher in patients of G units (10.0 ± 4.3 vs 7.9 ± 4.8; p0. 0001).

Conclusions: There were differences among the diseases of PP admitted to IM and G units. The functional dependence and cognitive impairment were also different. PP admitted in G units had worse prognosis according to the PROFUND index.

EA-41
KNOWLEDGE AND UTILIZATION OF TOOLS FOR MULTIDIMENSIONAL ASSESSING OF POLYPATHOLOGICAL PATIENTS BY INTERNISTS OF ARAGON

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Objectives: To determine the knowledge and utilization of the tools for multidimensional assessment of polypathological patients (PP) patients in internal medicine departments.

Material and method: In June 2011 we sent by mail a survey to all the internists and internal medicine training physicians (residents) of Aragon (Spain). Twenty-eight of them participated in a study about care of PP. We report the description of data obtained from responses to the survey.

Results: We sent 132 surveys, 43 to residents, and we obtained 37 (28%) responses. The response rate of residents was lower than of staff physicians (9.3% and 33.7% respectively). All responders knew the concept of polypathology and 32 (86.5%) the criteria used to label patients as PP. They reported that in their daily work 73.8% patients had multimorbidity and 41.1% were PP. Only 7 (19.4%) thought that to establish a prognosis for PP is easy and 32 (88.9%) knew a prognostic tool. Thirty-seven (100%) responders reported to know Barthel index, 21 (56.8%) Lawton-Brody index, 31 (83.8%) Pfeiffer questionnaire and 21 (56.8%) sociofamilial risk Gijón scale. Charlson index was known by 26 (70.3%) and PROFUND index by 23 (62.2%) responders. In their daily work 32 (86.5%) physicians utilized the Barthel index, 7 (18.9%) the Lawton-Brody index, 18 (48.6%) the Pfeiffer questionnaire, 5 (13.5%) the Gijón scale, 7 (18.9%) the Charlson index and 6 (16.2%) the PROFUND index. Eighteen (48.6%) of responders were participating in a study about care of PP and knew more frequently the PP criteria (100% and 73.7%; $p = 0.02$), and Lawton-Brody index (94.4% and 21.0%; $p < 0.0001$), sociofamilial risk Gijón scale (94.4% and 21.0%; $p < 0.0001$), Charlson index (94.4% and 47.4%; $p = 0.002$) and PROFUND index (100% and 26.3%; $p < 0.0001$). However they reported that they cared less often PP (25.6% and 33.7% respectively; $p = 0.002$).

Discussion: PP have become a challenge for the health care system of European countries in the 21st century and a progressive increase of polypathology is expected. Patients of internal medicine departments are frequently PP. They are vulnerable, have poor related quality of life and frequently have mental and functional impairment. To care PP a multidimensional assessment is advisable. In Aragon the internists know the tools to assess the PP, but however they utilize them less of desirable.

Conclusions: Although 41.1% of patients cared by internists are PP, the use of multidimensional assessment tools is low. Participation in studies of caring PP can help to know these tools.

EA-42
CORRELATION BETWEEN BODY MASS INDEX AND SEVERE OSTEOARTHRITIS OF THE KNEE IN A GROUP OF ELDERLY LIVING IN THEIR HOME IN TUNISIA

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Objectives: Worldwide, osteoarthritis (OA) is estimated to be the fourth leading cause of disability. OA is strongly associated with ageing and Tunisia is ageing rapidly. OA of the knee has been linked to obesity. Clinical observations suggested that there is a direct relationship between the degree of obesity and the severity of knee OA. Obesity is a modifiable risk factor associated with progression of arthritis, activity limitation, disability, reduced quality-of-life, total joint replacement and poor clinical outcomes after joint replacement. Objectives: this present study aimed to determine the prevalence of severe osteoarthritis of the knee (SOA) on a subset of elderly living in their home in Tunisia, we also examined the impact of obesity.

Material and method: This study based on data from the investigations of medico-social on the health and the lifestyle of elderly (aged more than 65 years living in their homes. This study approved by ethics committee and supported by OMS and FNUAP. It's a cross sectional study of randomly selected homes in randomly selected geographical islets. Study concern 598 elderly aged more than 65 years (mean age 72.3 ± 7.4 years, 66% women). The questionnaire includes identification, socio-demographic data and health behaviors. Obesity was defined using Body Mass Index (BMI) ≥ 30 kg/m2. Central obesity was considered at a waist circumference of > 102 cm in men and > 88 cm in women.

Results: In total, we included 598 subjects, The prevalence of severe osteoarthritis (SOA) of the knee with doctor diagnosed was 7.3%, mean age: 78.3 ± 7.4 vs 71.7 ± 7.3 years for subjects without SOA, $p < 0.001$. The mean of systolic blood pressure value was higher in SOA group (136 ± 17 vs 126 ± 17, $p < 0.001$). The weighted prevalence of obesity was considerably higher in SOA group (61.5% vs 47.7%, $p < 0.05$). However, a large waist circumference was more frequent but not significantly in SOA group, the mean WC was (106.8 ± 15 vs 103.3 ± 12 cm, $p = 0.07$). In addition the weighted prevalence of disability according Katz score was estimated at 16.3% and was more frequent in SOA group (44.2% vs 14.3%, $p < 0.001$). Multivariate logistic regression was performed to evaluate associations between the risk factors of SOA. Behind age, systolic blood pressure and disability, obesity was found to be the strongest predictor for SOA (OR [95%CI], 3.4 [1.2–9.1]; $p < 0.0001$).

Conclusions: Obesity is a risk factor for many conditions, including knee OA. The benefit of modifying this risk factor may cause significant risk reduction of knee OA in the general population, especially in Eldely Tunisian's people where obesity is prevalent.

EA-43
ADEQUACY USE OF ANALGESIC OPIOIDS IN HOSPITALIZED PATIENTS

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Objectives: Analyze the characteristics of patients treated with opioids and their relevance, optimization and the presence of adverse effects.

Material and method: Data were collected from clinical histories of patients treated with opioids, hospitalized in oncology and internal medicine in Elda's General Hospital. We analyzed the following variables: age, sex, multimorbidity disease, dependency, family aid, analgesic drugs, dosages, pain control and adverse effects.

Results: We analyzed 41 patients (56.1% women) with a mean age of 69.63 years. 48.8% admitted to internal medicine, 43.9% in oncology. 68.4% were independent for basic activities of daily life. 63.4% had no toxic habits. 95.1% had social and family support. 85.4% were oncological patients. 43.9% had no multimorbidity, a 9.8% suffered depression/anxiety, heart disease 7.3%, and 4.9% associations (chronic lung disease, heart disease). The main causes for treatment with opioids were: 14.6% musculoskeletal pain, 9.8% lung carcinoma, 9.8% kidney carcinoma, 7.3% breast carcinoma, pancreatic and colon adenocarcinoma, respectively. The 61% of patients hospitalized, had metastases. The main route of opioid administration was the transdermal (61%) followed by the oral route (31.7%), subcutaneous (2.4%) and intravenous (2.4%). The first drug used was fentanyl (61%), followed by oxycodone/naloxone and hydromorphone (9.8%). 65.9% of patients did not require further assistance, however 12.2% used intravenous morphine. The mean equivalent dose of oral morphine was 86.92 mg/day. Other variables included in the study were the use of other analgesics, 41.5% required a treatment with first-line analgesics, 12.2% other adjuvants, and 34.1% didn´t need any treatment. Prophylactic antiemetics were used in 48.8% and laxatives in 53.6%. 24.4% of patients presented vomits and constipation in 36.6%, with opioids. 14.5% showed a decreased level of consciousness secondary to morphine. Pain was controlled in 63.4%. Progressive dose adjustment was made in 95.1%, with a mean value of 4.31 reading in the visual analogic pain scale.

Discussion: Opioids are drugs widely used in the treatment of oncological pain; there are multiple, safe and efficient methods of administration. Treatment with opioids is used for two main aspects: neoplasic and musculoskeletal pain, most of them are oncologic patients (especially women) who require this type of treatment. The main route of administration was transdermal, because it´s easy to use in hospitals. Laxatives and antiemetics were associated in approximately 50% prophylactically, but patients did not present this pathology in large percentages. In most cases a good management of pain was achieved. Dose adjustment was made without neurological damage. Opioids are a good alternative to help those patients who don´t get good pain control with first-line drugs.

Conclusions: Despite the importance of controlling pain in oncological patients, this objective is achieved in only 2/3 of patients. That is why hospital guidelines are needed for a good reduction of the pain and its secondary effects in those patients who need it. Constipation (36.6%) was the most common secondary effect, followed by nausea and vomiting (24.4%) and decreased level of consciousness (12.2%). Fentanyl was the main drug used (61%).

EA-44
PREVALENCE AND IMPACT STUDY OF ORAL HEALTH STATUS IN A MID- TO LONG-TERM STAY UNIT

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Objectives: Oral diseases are a major public health problem, frequently neglected in hospitalized older adults, with potential deleterious effects (malnutrition, dysphagia, etc.). Despite high burden and risk of adverse outcomes, oral diseases have been little studied in our ambit. The aim of this study was to investigate the oral health status of an elderly patients population admitted in the Medium to Long Stay Unit (MLSU) of a universitary hospital. We also evaluated the possible impact in terms of quality of life and the possible relationship with complications such as oropharyngeal dysphagia (OPD) or malnutrition.

Material and method: A descriptive, observational and cross-sectional study was performed; we included 81 patients admitted to the MLSU during 3 months. The assessment was performed by a multidisciplinary team approach. Physicians registered epidemiologic variables (age and gender), clinical items (reason for admission; comorbidity [Charlson]; cognitive status [Pfeiffer]; functional capacity [Barthel]) and the presence of malnutrition with the validated test Mini-Nutrition Assessment (MNA). Trained nurses performed a complete oral examination to establish the presence of oral lesions and mucosal disorders (aphtas, periodontitis, xerostomia), the total teeth number and the use of well-adjusted removable dentures. To assess OPD, a volume-viscosity swallow test (V-VST) was administered. We estimated the oral health quality of life using the Geriatric Oral Health Assessment Index (GOHAI), a compact questionnaire with 12 items, validated with high sensitivity and specificity in geriatric population to determine the need for dental care.

Results: The mean age of the group was 78.51 (SD 12), of whom 51.9% were males. Chronic obstructive pulmonary disease was the most common reason for hospital admission (22.2%), followed by stroke (17.3%) and sepsis (12.3%). The average length of hospital stay was 18.54 days (SD 11.99). The Charlson index showed that 60.5% of them had comorbidity. The Barthel index media was 32.5 (25), where 67.5% of patients had severe/total dependence, and 33.3% had mild to severe cognitive impairment (Pfeiffer). According to MNA score, 55.6% of the elderly were malnourished. V-VST detected swallowing disorders in 46.8% of the patients. The presence of mucosal disorders was detected in 46.2% of the patients. Our patients had a median of 5 teeth (rate of edentulism: 35.8%). Despite 55.6% used dental prosthesis, only 43.1% had it well adjusted. All patients obtained values below the established GOHAI cutoff point, needing bucodental care. No significant relation was observed between the number of teeth or GOHAI and the other recorded variables.

Discussion: The prevalence of oral and mucosal disorders, as well as badly adjusted removable dentures was extremely high. It should be stressed that no statistically significant relation was observed in our study between the number of teeth, GOHAI or any of the oral pathologies considered and the presence of malnutrition, epidemiologic, functional or clinical items. This could be owed to the small sample size we analyzed, and therefore underpowered to detect possible correlations.

Conclusions: To date, very few studies have been conducted on oral health status in hospitalized adults in Spain. The results of the present study show that oral disorders, edentulous and badly adjusted dental prosthesis are highly prevalent disorders in our population. In consequence, GOHAI appears to be less valuable, due to the low specificity for identifying highly vulnerable patients who need dental care in our unit. A multidisciplinary team may offer early diagnosis and assessment, allowing individualized treatment. Due to the limited study size and underpowered results, further larger studies are suggested to confirm our findings and prove our hypothesis.

EA-45
DERIVATION OF PATIENTS TO A POST-ACUTE CARE HOSPITAL

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Objectives: evaluate the referral of patients from an acute-care hospital, to a long-stay hospital.

Material and method: A cross-sectional study was performed with 52 patients, between April 2010-April 2011. We studied the following variables: days of stay, age, gender, main diagnosis, reason for transfer, associated social problems, and service of origin. Statistical analysis was performed using SPSS 18.0.

Results: 52 patients were derived, with a mean age of 70.9 years (SD 12.4, range 41-90). 56.6% of patients were women (mean age 72.5, SD 13.2) and 43.4% men (mean age 68.9, SD 11.3). The diagnosis most frequently motivated the request for transfer was stroke (30.8%), followed by multiple trauma/fracture of the hip (9.6%), and skin ulcers/skin sepsis (7.6%). 55.7% were transferred for rehabilitation, 28.8% for convalescence, and 15.4% as palliative patients. 51.92% of patients had associated social problems. The service of origin was in this order: Internal Medicine (83%), Traumatology (5.7%), Surgery (5.7%), ENT (3.8%), and Hospital at home Unit (1.9%). The average stay in hospital for acute patients was 24.3 days (SD 20.2, range 0-123). By correlating the age of the patient days of hospital stay, there was no relationship (rho Spearman -0166). There is a relationship between age and area of movement ($p < 0.05$), but there was no relationship between age and diagnosis, or with associated social problems. There was no association between social problems and the area of patient transfer. There was no relationship between the number of days of income and associated social problems.

Discussion: In our study we found no predictors of a need for long stay, although there is a clear relationship to the existence of social problems (half of our patients had). The main causes of needing for referral of patients to long-stay hospital were stroke and hip fractures, pathologies due to increased life expectancy in our country, that presumably will continue increasing in frequency along time. Prolonged stays occur prior to transfer to a long hospital stay, and it would be important a right patient selection, through proper geriatric assessment, and after the initial evaluation, a quick tap of the patient. The main problem with any referral program, and we also have found in our study, is the lack of resources available at the time of referral of patients evaluated, since many of them are not likely to be taken to a hospital for long stay, but would benefit from living in residences or their own homes, if we could have services or support measures, which we don't have. All this is exacerbated by the current economic crisis that we are suffering.

Conclusions: We need a proper selection of patients once the acute hospitalization period has ended to achieve the optimization of available resources. There is a significant resource gap, which is becoming more evident as the increase in life expectancy, which is an increase in demand for these resources. A good option for long-stay hospitals would be new residences, day-care centers and home physiotherapy and rehabilitation units.

EA-46
INTERNAL MEDICINE EXPERIENCE OF INTERCONSULTATIONS BY SURGICAL DEPARTMENTS

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Objectives: Describe the characteristics of the consultations demanded by surgical departments -General & Digestive Surgery (GDS), Urology, Otolaryngology (H&N) and Vascular- to Internal Medicine, determine the factors that have prognostic influence on these patients and assess the associated workload.

Material and method: Prospective study of the consultations carried out by the surgical services during 2011.

Results: One hundred and nine interconsultations were request, 60.6% were men. Median age was 71.5 years (range 16-93). General

Surgery was responsible of 43.4%, Head&Neck 17.4%, 28.4% Vascular surgery and 11% Urology. The request was urgent or in the same day in 75 occasions (68.8%). The patients were followed during 3.69 days. The average of interconsultations was 1.22 (DT 0.51) for each patient. When analyzing the comorbidities, we founded a Charlson Comorbidity Index (CCI) of 2.27, without different among the services. The main reasons for consultations were dispnea (33%), analytical alterations (11.9%), treatment adjustment and conciliation (8.25%) and fever (5.5%). Cardiac failure (17%), sepsis (10.1%) and respiratory infection (8.38%) were the main diseases found. Twenty two patients died (19.3%), 13 (59%) of them patients of in GDS. This mortality rate is higher than the global mortality for these services during the study period (3.26%) and that found in GDS (4.33%). The mortality was higher in that patients admitted through emergency unit (14 of 21) than those with programmed care. Sepsis was the main cause of death (6 patients). The average length of hospital stay in the study group was 19.6 days, while was 6,9 days for the cohort of patients admitted to surgical services during the same period; in GDS the medium length of stay was 10.51 days in General Surgery. Internists adjusted or modified the treatment in 84 patients (71.1%), but this change was registered only in 22% of the surgical discharge report.

Discussion: Most of the interconsultations were for elderly men with multiples comorbidities that required urgent medical assistance. When comparing our data with other studies previously published, we didn't found differences in sex, age, mortality, number of visits, CCI, the principal cause for consultations and most frequent diagnosis. Nonetheless, the patients of this study have a smaller average hospital length of stay, perhaps because traumatological patients were not included in this study. However, the average length of stay is higher than that of the same Service, perhaps, because most of the patients with interconsultations have a more severe diseases and CCI. The principal causes of death were related with the disease responsible with the admission to the hospital or with its complications. Although consultation physicians make a great number of medical interventions, few of discharge reports showed these changes when patient is discharged.

Conclusions: Surgical interconsultations account an important workload for internist due to the severity and complexity of their conditions. Thorough evaluation of these patients with chronic conditions and high risk must be done at admission, or in the emergency department, and before surgical procedure. An additional discharge report complimented by internists with adjustment of treatment and tailored for their chronic conditions contribute to assure the continuity and improvement of care.

EA-47
ADRENAL INSUFFICIENCY IN ELDERY PEOPLE: A DELAYED AND LIFE-THREATENING DIAGNOSIS

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Objectives: Adrenal insufficiency (AI) has a non-specific clinical presentation, especially in elderly patients. Moreover, laboratory findings may easily be attributed to other entities. A high suspicion index is necessary for detection and treatment. Our goal is to describe the clinical presentation, physical examination, laboratory findings and chronic corticosteroid use in all patients 75 years or older diagnosed with AI. We also reviewed their comorbidities and prognosis upon one year follow-up.

Material and method: Retrospective study reviewing the clinical chart of all the patients diagnosed of AI in a 5 year period (2007-12). Inclusion criteria: discharge diagnosis and/or laboratory criteria (basal cortisol levels < 3 µg/dL or response to low dose ACTH stimulation < 20 (µg/dL) .We excluded patients with a clinical diagnosis without biochemical confirmation. The study was performed in the Corporació Sanitària Parc Taulí (420,000 reference population (21,942 > 75 years), 765 teaching beds. Data collection in database and descriptive analysis with statistics package SPSS v19, using student t-test or U Mann-Whitney for quantitative variables and Chi-square for qualitative.

Results: N = 26 (11 women, 15 men). Mean age at diagnosis is 79.50 years old (range 75-89). 96.2% of patients were diagnosed with AI secondary to exogenous glucocorticoid (GC) treatment. The most common complaint was weakness 80.9%, gastrointestinal symptoms (anorexia, nausea and vomiting) 69.2% and weight loss 26.7%. Physical examination highlighted sustained hypotension in 69.2% as well as dehydration in 30.7%. 53.8% of our patients had history of chronic obstructive pulmonary disease (COPD), 15.4% with asthma and 26.9% with autoimmune disease. 96.15% of patients were taking some form of GC therapy at diagnosis (inhaled 19.2%, systemic 30.8%, both 42.3%). Fluticasone propionate (FP) was the most common inhaled GC (46.2%) followed by budesonide (7.7%). Mean doses of FP were 1,346 mg/day (400-2000). At diagnosis, 80.7% were taking some antihypertensive treatment (angiotensin-converting enzyme 38.5%, angiotensin II receptor-antagonist 19.2%, aldosterone antagonists 19.2%, diuretic 65.4%, others 46.2%). Laboratory findings were: Mean Na was 133 mEq/L (range 112-144), mean K was 4.5mEq/L (range 3.1-6.7). Mean baseline serum cortisol level was 5.25 µg/dL (range 1.3-17.80). Mean stimulated peak cortisol level was 13.93 µg/dL (range 5-28.28). The relationship between FP dose and serum cortisol levels or peak cortisol level after stimulation showed a marked adrenal suppression with doses above 1,500 µg/day, unlike the systemic treatment (6.39 µg/dL versus 19.63 µg/dL serum cortisol level, p = 0.323; and 13.49 µg/dl versus 16.39 mcg/dl for stimulated peak, p = 0.57). Additional tests performed were: endoscopy study 42.3%, cranial RMB or CT scan 26.9% and thoracic-abdominal CT scan 57.8%. The most common comorbidities were infections (pneumonia 41.4%, urinary tract infection 15.3%, septicaemia 15.3%) and complications of underlying disease (respiratory insufficiency 38.5%, Congestive heart failure 30.7%). 50% of elderly patients were treated in wards of internal medicine (acute internal medicine 26.9%, acute geriatric unit 23.1%), followed by pulmonary disease unit 19.2%. 50% of patients died in the year after the diagnosis. Patients with a lower cortisol level had a higher probability of death (p = NS).

Conclusions: Exogenous GC treatment was the most common cause of AI in the elderly. All patients had multiple comorbidities and more than 90% were treated with GC therapy. Inhaled GC can be harmful in these patients. High doses of inhaled GC tend to be related to lower basal serum cortisol level or lower stimulated peak cortisol level. Frequent use of antihypertensives can mask the clinical presentation and delay diagnosis. The low specificity of the clinical signs and symptoms may lead to unnecessary testing. Screening is recommended to identify patients at risk.

EA-48
A PROSPECTIVE PNEUMONIA STUDY: MICROBIOLOGY AND INITIAL EMPIRIC ANTIBIOTIC THERAPY

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Objectives: Analyze epidemiological, clinical, microbiological findings, resistance patterns and antibiotic treatment in patients admitted with diagnosis of pneumonia.

Material and method: Prospective study of 111 patients consecutive admitted with a pneumonia diagnosis to the Internal Medicine ward of the Valencia General University Hospital from November 2011 to April 2012.

Results: We studied a total population of 111 patients, 56.8% were women, mean age 83.56 years, Barthel Index 10. Most of them would come from their home (58.6%) and 36% from a nursing home. The 54.1% was diagnosed of healthcare-associated pneumonia (HCAP). We evidenced some type of malnutrition in 82.8% of patients. One antibiotic was given as initial empiric antibiotic therapy in 64% of patients; meanwhile 2 antibiotics were given in 35% of them. The most used antibiotic was levofloxacin (55 patients), followed by piperacillin/tazobactam (33), cephalosporins (28, amoxicillin/clavulanate (28). The mostly used empiric antibiotic association was piperacillin/tazobactam with levofloxacin (15) and ceftriaxone with levofloxacin (14). Of all the 60 patients diagnosed of HCAP, only 11 received initial empiric antibiotic therapy currently indicated in the pneumonia guidelines covering common hospital pathogens with piperacillin/tazobactam and levofloxacin and only 8 with piperacillin/tazobactam. We observed a lower mortality in patients who received antibiotics earlier (mean time 3.63h in 16 patients vs 5.60h in 20 patients) with no statistical significance. 81 samples were sent for microbiological analysis, reaching an etiological diagnosis in 24 of them. We performed the following tests: blood culture 44 (yield 18.2%), sputum culture 23 (yield 52.2%), pneumococcus antigen 56 (yield 21.4%), Legionella antigen 54 (all negative). We obtained 3 pleural effusion cultures and two serological studies, but all were negative. From the 24 etiological diagnosis, we found: S. pneumoniae (11), A. baumannii (3), H. influenzae (2), MRSA (2), S. aureus (2), P. aeruginosa (2), M. morgagni (1), E. cloacae (1), E. coli ESBL (1). The average length of stay (ALOS) was 13.98 days with a total mortality rate of 27%. The subgroups ALOS and mortality rate was respectively: HCAP 15.1 days and 28%, community-acquired pneumonia (CAP) 12.13 days and 27%, hospital-acquired pneumonia (HAP) 13.92 and 42.86%.

Conclusions: Nowadays, with the continuous dynamic social environment having frequent contact with hospitals and the new forms of health-care facilities, the classical paradigm of pneumonia approach needs continuous changes based on evidence from clinical trials. Therefore, our interest on conducting this prospective study where we have objectified a high incidence of HCAP and total mortality of 27% related to the common features of our population and the lack of an adequate initial empiric antibiotic therapy according to current guidelines, but the almost equal mortality of HCAP and CAP induce to think that the treatment administered was correct because of no excess of mortality. A low percentage of etiology was demonstrated, but of all the etiological findings, we evidenced a high incidence of common hospital pathogens (A. baumannii, MRSA, P. aeruginosa and E. coli ESBL). Gram stain of reliable tracheobronchial aspirates has proven a minor incidence of inappropriate treatment when used to guide the initial empiric antibiotic therapy. In our study, we noticed that sputum culture and gram stain have a yield superior to 50%, despite the low performance of this test in our patients. Although the high HCAP criteria at admission, the association piperacillin/tazobactam and levofloxacin (which follows treatment guidelines) keep being underused empirically, which might be because of the low incidence of atypical pathogens in our population of study. Piperacillin/tazobactam alone is also a good option in our patients, but it is also not used empirically on every patient diagnose of HCAP. Even though we had a low incidence of HAP, its prognosis and mortality keeps being the highest.

EA-49
CAUSES OF ANEMIA IN AN INTERNAL MEDICINE WARD

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Objectives: This database studies a population of inpatients of an Internal Medicine ward for short periods of time with a purpose of identifying the most prevalent types of anemia and its association with comorbidities and duration of institutionalisation.

Material and method: This is a prospective study developed over a period of 6 months (April-September 2011) in a Internal Medicine ward. The purpose was to identify the most frequent types of anemia, his association with comorbidity and length of hospitalisation. Male patients with a haemoglobine (Hb) level inferior to 13 g/dL and female patients with an Hb inferior to 12 g/dL were eligible for the study. Patients who had a transfusion in the previous six months were excluded. Information was collected about physiologic condition (sex, age and weight) and health status (associated comorbidities). Blood tests were performed for anemia study. Classification of anemia was based on laboratorial and clinical criteria allowing a division in four groups: ferropenic anemia (serum ferritine < 12 ng/mL, transferrin saturation < 15% and serum iron > 60 µg/dL), chronic disease anemia/inflammation (serum iron > 60 µg/dL and serum ferritine > 60 ng/mL), chronical renal insufficiency anemia (creatinine clearance < 30 ml/min) and multifactorial cause anemia.

Results: Of the group of 101 patients, 50.4% (51) were male and 49.5% (50) were female. The subjects had a mean age of 73 years old. The patients with a diagnosis of anemia had an average length of stay of 10.4 days. Ferropenic anemia comprised 5.94% of cases, the most prevalent was chronic disease/inflammation anemia (74.25%) and chronic renal insufficiency anemia was present in 21.8% of patients. Multifactorial anemia was verified in 57.4% of patients and the longest length of hospitalisation was attributed to this type of anemia.

Discussion: Anemia in elder individuals (over 65 years) presents etiologies much different to those present in young adults. That being said it becomes an important prognostic marker associated with increased number of hospitalisations, longer stays and morbi-mortality. The results should be adjusted to the values of markers of acute inflammation and re-evaluated when the patient is stable as we believe that inflammation is responsible for many of the reported cases. For further studies, acute inflammation markers should be included and it would also be interesting to verify the survival over a one year period.

Conclusions: Chronic disease/inflammation anemia was the most prevalent in a Medicine ward in patients with ages above 65 years old over the 6 months of study. Nevertheless, the multifactorial anemia is responsible for an enlargement of the hospital stay, confirming the idea that a patient with more associated comorbidities will have more complications. Individuals with a known story of chronic renal insufficiency and anemia will also have a prolonged hospital stay.

EA-50
CHRONIC COMPLEX PATIENTS AND ACCURATE DRUG PRESCRIPTIONS: DEGREE OF OBSERVANCE OF STOPP/START CRITERIA IN OUR EXPERIENCE

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Objectives: In order to improve drug prescriptions, many recommendations and scales have been developed. The STOPP/START criteria are valid for elderly patients, and their fulfilment correlates with less drug adverse effects. Whereas STOPP criteria penalize inaccurate drug prescriptions according to several clinical characteristics, scoring bad prescriptions, START criteria penalize those drugs that should ideally be prescribed. In conclusion, the higher number of STOPP/START criteria, the worse the prescription is. The main objective of this study was studying the level of

optimization of chronic treatments during an admission at the PPU, according to the STOPP/START criteria. Other aims of the study were describing the characteristics of the population sample and detecting which were the least observed criteria, when patients were admitted and discharged; assessing the drug adverse reactions during the admission period, as well as analyzing the factors that may determine the observance of these criteria.

Material and method: Observational retrospective study. Sample constituted by patients monitored by the PPU admitted in the HUP between June 2011 and April 2012. Exclusion criteria were age under 65 and death during admission. Data were collected from the computerized clinic history (social and demographic data, regular treatment at admission and at discharge, and their STOPP/START criteria). To the statistical analysis we used the R 2.12.2 program, considering statistical significance for the parameters analyzed $p < 0.05$.

Results: It was analyzed a 37-patient sample (24 women and 13 men), whose average age was 85 years old (range 68-97). From these, 65% (24) had comorbidity criteria, and also 65% satisfied polypharmacy criteria. A relevant proportion of the patients (15, 40.5%) had some degree of cognitive impairment according to the GDS scale. Two patients were institutionalized and 21 had a caregiver. At admission our patients consumed an average of 6.76 drugs (range 1-15), of which 0.81 (range 0-5) were psychoactive drugs. After admission, therapy was reduced to 6.49 drugs (2-13); 0.78 (range 0-3) for psychoactive drugs. Once the STOPP/START criteria (chart 1) were collected, there was a decrease in STOPP and in START criteria. Analyzing the factors that may influence the quality of the prescription, we found correlation between dementia of any degree and the presence of at least one STOPP criterion ($p = 0.0008$). There was also found a statistically significant relation between the number of psychoactive drugs and the number of STOPP criteria, at admission ($p = 0.005$) as well as at discharge ($p = 0.004$). Four drug adverse reactions (DAR) were recorded as leading to admission, 2 of them were benzodiazepine intoxication.

Discussion: There is a high degree of potential inappropriate medications in elderly patients. Some clinical conditions, such as cognitive dysfunction or regular psychoactive drugs, could be related with a worse observance of STOPP criteria. This could be attributable to the fact that these were not specifically designed to these type of patients.

Conclusions: Patients admitted to the PPU are very elderly, with high rates of comorbidities and dementia. The DAR number was low, and lower than in other series. The long and the short of it, modifications of the patient's treatment during admission in our PPU can optimize drug prescription, following the STOPP/START criteria.

EA-51
PLURIPATHOLOGIC PATIENTS: MARKERS PREDICTIVE OF MORTALITY INTRA ICU AND AFTER 6 MONTHS OF ADMISSION

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Objectives: Patients with multiple comorbidities (pluripathological patients) is an emerging population in intensive care units (ICUs), not without high morbidity and mortality. It is important to identify markers predictive of mortality for this population. Our objective is to identify markers predictive of mortality in PP patients admitted to the ICU from January to June 2011 during his stay in the ICU and at 6 months follow up.

Material and method: Retrospective study. Inclusion criteria: all patients who met the definition of PP and admitted to the ICU during the study period. Exclusion criteria: PP patients from surgery scheduled and PP patients admitted on a scheduled basis for placement of intravascular devices. Primary endpoint: mortality and ICU mortality at 6 months after admission to the ICU. Explanatory variables: We analyzed the clinical characteristics, care, functional status of chronic disease, number of categories of chronic disease, prognostic indices (functional: Barthel Index, Comorbidity: Charlson and Profund indices. Severity: Apache II). They conducted a descriptive and comparative analysis between PP patients who died in ICU and in the next 6 months with the rest of PP patients of different explanatory variables with SPSS 17.0.

Results: During the study period we included a total of 46 patients who met the definition of PP. The mean age was 71.3 ± 11 years. The most prevalent chronic diseases were: chronic heart failure (56.5%), chronic renal failure (54.3%) and chronic respiratory disease (37%). During admission, 19 patients died in ICU (41.3%). The clinical categories that were associated with ICU mortality were presence of neurological disease that causes permanent motor deficit and constraint to the basic activities of daily life (26.3% vs 3.7%, $p = 0.002$) and the presence of a solid tumor active subsidiary not treated with curative intent (36.8% vs 0%, $p < 0.001$). Among patients who died had significantly higher scores on the Profund index to the rest (6.7 ± 2.2 vs 2.2 ± 1.2, $p = 0.001$), no significant differences in baseline Barthel score, Charlson index and APACHE II. At 6 months of ICU admission 32 patients had died (69.9%), the variables associated with mortality at 6 months were: PP patients from hospital wards (62.5% vs 14.3%, $p = 0.003$), presence of hypoalbuminemia (2.8 ± 0.6 vs 3.4 ± 0.6, $p < 0.001$), low Barthel index score at baseline (82.8 ± 17.2 versus 97.7 ± 7.6, $p < 0.001$) and higher scores on the Profund Index (6.5 ± 4.3 vs 1.1 ± 0.9, $p < 0.01$).

Conclusions: There is a high ICU mortality and medium term on PP population admitted to the ICU. Variables that were associated with increased risk of mortality were: to present a solid neoplasic disease subsidiary not cure, submit a neurological disease that causes motor deficits, lower scores on the Barthel index and higher baseline Profund index score.

EA-52
ANALYSIS OF THE DISCREPANCIES FOUND BETWEEN PATIENT'S PHARMACOLOGICAL HISTORY AND THEIR ACTUAL DRUG PRESCRIPTIONS IN POLYPATHOLOGICAL PATIENTS, AS WELL AS THE MAIN DRUGS INVOLVED AND THEIR SEVERITY

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Objectives: To analyze the discrepancies found between the home treatment of polypathological patients and their active

Table 1 (EA-50). STOPP/START criteria in our study

STOPP criteria at admission/at discharge//variation	41/28 criteria//- 13 criteria (-31.7%, p = 0.046)
START criteria at admission/at discharge//variation	27/22 criteria//- 5 criteria (-18.5%, p = 0.044)
STOPP group more frequent on admission/at discharge	H, falls risk after drugs: 11/7
START group more frequent on admission/at discharge	F, primary prevention in diabetes mellitus: 13/10

prescriptions, defining the most frequent kind of error in this group of patients, as well as the acceptance percentage of the intervention. To identify the major drug groups affected by the discrepancies, both in frequency and severity. Assess the severity of these errors, according to the categorization of The National Coordinating Council for Medication Error Reporting and Prevention's (NCC MERP).

Material and method: Prospective observational study. Carried out by performing a reconciliation at admission of 100 polypathological patients, as defined under the Andalusia's integrated care process, in a tertiary hospital. The main information source used was the digital medical history, both from the hospital and from the primary care, using clinical interviews if necessary. To assess the error incidence, we estimate the main quality indicators of the reconciliation process recommended by the Reconciliation Group of the Spanish Society of Hospital Pharmacy. The following variables were collected: number of prescribed drugs, number of discrepancies requiring clarification with the prescriber, number of reconciliation errors (RE), type of error (omission, commission, differences in dose, route or timing, incomplete prescription), and acceptance rate and pharmacological groups involved. We evaluated the severity of each reconciliation error according to the classification of NCC MERP.

Results: Among the 100 patients, 76 of them showed at least 1 CE, ergo there were 76% patients with CE. The patients had 1,153 drugs prescribed, of which 196 showed discrepancies requiring clarification with the prescriber. Among these 196 not justified discrepancies, the doctor changed the prescription in 162 of them, considered reconciliation errors. These data give a figure of reconciliation errors in 82.65% of the discrepancies and 14.05% of prescribed drugs with CE. The error types were: omission of drugs (83.33%), being remarkable antidepressants and iron supplements, commission (4.32%), different dose or timing (6.79%) and incomplete prescription (5.55%). Among the different pharmacological groups involved antidepressants and iron supplements could be highlighted as the most frequent errors, and anticoagulants and antiplatelet agents as the most serious. In terms of severity, 4.32% were potential errors, 16,05% of the errors produced did not reach the patient, 67.9% reached the patient but caused no damage, and the 11.73% caused no harm, but would have required monitoring patient.

Discussion: Although the severity is low, the activity of reconciling the medication should be seen as an opportunity to improve patient safety and is essential to develop and implement standardized procedures in vulnerable patients, as is the case of polypathological patients.

Conclusions: 1. There is a high incidence of reconciliation errors in these patients. The most frequent error is the omission of the drug, possibly due to the large number of drugs prescribed in patients with multiple comorbidities. 2. Antidepressants, iron supplements, anticoagulants and antiplatelet agents are the major pharmacological groups affected. 3. The severity of these errors is low.

EA-53
FIVE YEARS OF NONAGENARIAN AND CENTENARIAN ADMISSION IN THE UNIVERSITY GENERAL HOSPITAL OF ALICANTE (SPAIN): IMPLICATION OF THE INTERNAL MEDICINE SERVICE

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Objectives: Older adults constitute the largest subgroup in the internal medicine practice, and providing optimal care to this population can be challenging. Patients over 90 years are increasing in proportion among the general population. The aim of this study was to investigate in which units they were admitted in hospital, which diagnoses they were given, and the outcomes of hospitalization in these nonagenarian and centenarian patients for five years in the city of Alicante (Spain).

Material and method: Cross-sectional study of the 2,461 episodes of admission by patients ≥ 90 years old that were attended for five years (from 2007 to 2011) in a public teaching hospital without a geriatric service. Demographic data, diagnoses at hospital discharge, and mortality were obtained.

Results: Throughout the period of study there were 165,870 episodes of hospital admission, 2,461 (1.5%) were patients ≥ 90 years. The number of annual admission ranged from 475 to 507. Five hundred and sixty one episodes (26%) were re-admitted to hospital during the period of study: two times in 58.6% (329/561), three times in 24.2%, four times in 8.2% and other ≥ 5 times (8%). Average age of admission was 92 years old (range: 90-108 years). Only 38 (0.9%) admissions were in centenarian patients. The gender of admission was female in 64.8% and male in 35.2% episodes. Most of admissions came from Emergency Room (95.5%). The main service for admissions was the internal medicine service (IMS) (761 episodes; 30.9%) and short stay unit (SSU) (655 episodes; 26.6%). The other medical services were: gastroenterology & hepatology (6.8%), neurology (NS) (4.4%), and cardiology (2.9%). The main surgical services were orthopedics and traumatology (OTS) (7.3%), general surgery (2.8%), and vascular surgery (2.6%). From the overall number of discharge from IMS, nonagenarian represented 10.2%, from SSU represented 6.1%, from OTS represented 2.8%, from gastroenterology service was 2.0%, and from neurology was 1.9%. The average length stay hospitalization was 5 days (range: 0-79 days). The main cause of admission was lower respiratory tract infection and pneumonia (19.5%), followed by heart failure (10.9%) and hip fracture (8.1%), septicemia (3.9%), urinary tract infection (3.8%), and stroke (3.5%). The mortality rate of admission was 17.0%, however in IMS was 49.1%, in SSU was 13.3%, in NS was 7.3% and in OTS was 4.1%. The main destination at discharge was home (64.9%), followed by home hospitalization (9.1%); 5.7% of discharged patients were referred to a long stay hospital.

Discussion: Nonagenarian and centenarian admissions have been constant for five years of study, most of which were female, one out of four was re-admitted to hospital and mortality was high. IMS represents the main service of admission with a higher mortality rate than others.

Conclusions: The attention to nonagenarian and centenarian patients should be adequate to the main diagnosis of these patients.

EA-54
ARTERIAL HYPERTENSION IN PATIENTS WITH DIABETES MELLITUS OF 1 TYPE WITH ORTHOSTATIC DISORDERS AND POSSIBILITIES OF CORRECTION

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Objectives: To characterize peculiarities of diabetic nephropathy (DN) and cognitive functions in patients with arterial hypertension (AH) suffering from diabetes mellitus (DM) of I type, complicated with orthostatic hypotension (OH) and to estimate use of venoprotector for correction of dyscirculatory encephalopathy (DE) and DN.

Material and method: Sixty patients with DM of I type in combination with AH and OH took part in the investigation. Schellongs' orthostatic probe, microalbuminuria (MAU) screening with "Micral-Test-11", MMSE-test, 10 words memo probe, Spielberg

test, Beck questionnaire were used. Hypotensive therapy with enalapril and insulintherapy were carried out in patients of group 1. Venoprotective therapy - with Diosmin was carried out in addition to hypotensive and insulin therapy in patients of group 2. Duration of treatment was 1 month.

Results: In the selection of the individual daily dose of enalapril in all patients achieved target BP levels in both groups. However, in group 1 were observed side effects of antihypertensive therapy in the form of strengthening the subjective symptoms of postural hypotension (pre-treatment complaints were present in 59.3% of patients on therapy - 95% of patients, $p < 0.05$). In the second group noted a significant decrease in subjective symptoms of postural hypotension (pre-treatment complaints were present in 53.3% of patients, on therapy - 14% of patients, $p < 0.05$) and objectively in the form of reduced incidence of systolic (SBP) and diastolic blood pressure (DBP) from baseline. In both groups before treatment there was a significant increase in the level of microalbuminuria during the AOP ($p > 0.05$). After treatment with the ACE inhibitor in group 1 there were significant increases in MAU after 1 month of starting treatment with 219.3 ± 62.6 to 437.8 ± 84.3 mg/l ($p < 0.001$). In the second group there was a significant reduction in MAU with 346,5 ± 88 to 169.8 ± 48 mg/l ($p < 0.001$). In neuropsychological testing, MMSE score and parameters mnestic areas were below the normal limit. After treatment in the group with combined therapy, short-term rates, long-term verbal and visual memory increased. In addition, change and qualitative indicators: reduced memory zigzag curves, indicating a decrease in the lability of the process of memorization and reproduction of words, had achieved a plateau of the curve memory. In the group without indicators detraleks mnestic function remained without positive trend. Combined therapy of short-term rates, long-term verbal and visual memory increased, the average number of plays by more than 7, which correspond to become the norm ($p < 0.05$).

Discussion: Orthostatic insufficiency in patients with type 1 diabetes should be regarded as an important pathogenetic factor in end-organ damage. When orthostatic decrease in blood pressure increases the level of microalbuminuria, which indicates the potential damage of nephron in orthostatic hypotension. These results suggest the presence of severe cognitive dysfunction and emotional disturbances in patients with hypertension against the background of type 1 diabetes complicated by orthostatic hypotension. Based on these data suggest that the elimination of repetitive episodes of systemic hypotension with venoprotectors leads to stabilization of hemodynamics and significant decrease in cognitive disorders, also allows the use of venoprotectors significantly reduce MAU in these patients.

Conclusions: Postural hypotension in patients with DM in combination with AH leads to aggravation of MAU and cognitive dysfunction. Use of venotonic permits to level signs of postural hypotension, decrease the level of MAU and symptoms of cognitive dysfunction.

EA-56
SYNDROME OF INAPPROPRIATE SECRETION OF ANTIDIURETIC HORMONE IN HEMORRHAGIC BRAIN INJURY: REAL LIFE EXPERIENCE FROM A TERTIARY HOSPITAL

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Objectives: Hyponatremia has been described in patients with hemorrhagic brain injury (HBI). This study aims at ascertaining the incidence of hyponatremia in HBI with its etiologic diagnosis, biochemical confirmation, and severity correlation with initial Glasgow Coma Scale (GCS) score and computed tomography (CT) abnormality.

Material and method: All patients more than 70 years old with severe and moderate HBI with CT confirmed abnormality were included. Daily sodium level was monitored for 15 days. Central venous pressure (CVP) was measured for assessment of volume status. Fractional excretion of uric acid was measured in all patients with hyponatremia, both before and after its correction.

Results: Of 10 consecutive patients, 8 remained for analysis. Hyponatremia was seen in 2 (25.0%) patients, of whom 1 developed it within the first week. Mean duration of hyponatremia was 10 days. We found that 5 patients had an elevated CVP consistent with the syndrome of inappropriate antidiuretic hormone (SIADH), whereas 3 had low CVP consistent with cerebral salt wasting syndrome (CSWS). Uric acid levels did not show consistent pattern to suggest a biochemical distinction. There were 33.3% of moderate, and 16.6% of severe HBI among hyponatremic patients. Hyponatremia was seen in Rotterdam CT scores I to IV in increasing incidence ($r = 0.86$, $p = 0.03$), and had significant correlation with initial GCS ($r = 0.75$, $p = 0.05$).

Discussion: Hyponatremia due to SIADH is more common in HBI. Fractional excretion of uric acid measurement could not make a distinction between SIADH and CSWS. CT scoring of severity and initial GCS are equally predictive of hyponatremia.

EA-57
KNOWLEDGE AND UTILIZATION OF TOOLS FOR MULTIDIMENSIONAL ASSESSING OF POLYPATHOLOGICAL PATIENTS BY PRIMARY CARE PHYSICIANS OF ZARAGOZA (SPAIN)

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Objectives: To determine the knowledge and utilization of the tools for multidimensional assessment of polypathological patients (PP) in primary care.

Material and method: In June 2011 we sent by mail a survey to all the primary care physicians of health sector Zaragoza I. We report the description of data obtained from responses to the survey.

Results: We sent 117 surveys, and we obtained 37 (31.6%) responses. Twenty-nine (78.4%) of responders knew the concept of polypathology and 20 (54.0%) the criteria used to label patients as PP. They reported that in their daily work 36.2% (95%CI 31.3-41.1) patients had multimorbidity and 29.4% (95%CI 25.4-33.4) were PP. Twenty-nine (78.4%) primary care physicians thought that to establish a prognosis for PP is easy but only 14 (37.8%) knew a prognostic tool to do it. All responders reported to know Barthel index, 17 (45.9%) Lawton-Brody index, 37 (100%) Pfeiffer questionnaire and 4 (10.8%) sociofamilial risk Gijón scale. Charlson index was known by 4 (10.8%) and PROFUND index by 4 (10.8%) responders.

Discussion: Caring PP has become a challenge for the health care system of European countries in the 21st century and a progressive increase of polypathology is expected. They are vulnerable, have poor related quality of life and frequently have mental and functional impairment. To care PP a multidimensional assessment is advisable. In Zaragoza nearly one third of patients of primary care are PP. but primary care physicians reported knowledge gaps about sociofamilial risk, comorbidity and prognosis assessment.

Conclusions: There are important knowledge gaps concerning multidimensional assessment of PP in primary care.

EA-58
ATRIAL FIBRILLATION. MORTALITY AND LONG-TERM MORBIDITY

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Objectives: Atrial fibrillation is the most common sustained arrhythmia in the population, and its frequency is expected to increase in coming years. It's a disease with significant impact on overall mortality and morbidity (involved), and its prevention and treatment are increasingly important goals for modern medicine. The objective of this study is to describe cardiovascular complications and mortality recorded during one year follow up of a sample of patients with atrial fibrillation in our area, and to analyze the risk and protection factors involved.

Material and method: We included all the patients with atrial fibrillation admitted to the Internal Medicine ward at the Hospital 12 de Octubre, Madrid, during a period of two months (June and July 2010), collecting information recorded in the clinical history of the patients (diagnostic procedures, prognostic factors, events during the hospital stay, etc). Subsequently, in July 2011, by telephonic interview we collected information of posterior clinical events, complications and mortality reported during that year completing epidemiologic characteristics of the group. We used Stata 10.0 to analyze our results, considering statistical significance for $p < 0.05$.

Results: There were 82 patients with atrial fibrillation admitted during the period analyzed, of which 41 (50%) were women, with mean age of 78.9 years. We observed high comorbidity rates with a mean Charlson Index of 3.1. Comorbidity was mainly associated with cardiovascular risk factors. We found patients were greatly polymedicated with an intake of 6.8 drugs per patient on average. The most frequent complications recorded during the study were hemorrhagic events (32.9%), heart failure (31.7%) and death (41.46%). Heart failure episodes were more frequently associated with receiving anticoagulation treatment (42.5% vs 21.95%, $p = 0.048$) and with diagnosis of atrial fibrillation more than 30 months prior. We observed higher mortality in the groups with high Charlson index and with permanent/persistent vs paroxistic atrial fibrillation, but these results didn't reach statistical significance.

Discussion: The current study, when compared with previous similar studies, shows an aging population with intense comorbidity and with a high prevalence of cardiovascular risk factors. Complications are also reported considerably more frequently than in previously published data. The association of heart failure and anticoagulation treatment is not completely explained with our results, though it could be related to surreptitious bleeding events or drug interactions. On the other hand, mortality seems to be mainly associated with non-cardiovascular events, probably showing a greater importance of overall comorbidity and age of our population, than a higher cardiovascular risk associated with atrial fibrillation.

Conclusions: The population that is hospitalized in our Department of Internal Medicine with atrial fibrillation represents an especially aged group of patients, with significant associated cardiovascular risk factors and comorbidity. Complications recorded during one year are significantly higher than those found in other studies with strikingly higher mortality. Current guidelines for the management of patients with atrial fibrillation probably do not meet our patient profile. This must be taken into account when assuming the treatment and evaluation of our patients and should encourage us to perform future studies with similar populations.

EA-59
EXACERBATIONS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE: MORTALITY AND READMISSION IN PATIENTS CON LTOT, NIV AND CPAP

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Objectives: Chronic obstructive pulmonary disease (COPD) is a priority health problem worldwide. In addition to its high prevalence and morbidity, causes important socioeconomic costs which include loss of quality of life and early death. Among them, specially comorbid patients that involve specific cares are patients with home oxygen therapy (LTOT) and/or special ventilation measures as noninvasive ventilation (NIV) and airflow pressure continuous positive (CPAP). The aim of this study is to analyze mortality, readmissions and hospital stay in patients with acute COPD requiring LTOT and/or nocturnal CPAP and if they have needed NIV and/or admission to intensive care unit (ICU).

Material and method: Observational, retrospective and transversal study. We reviewed all reports of patients discharged from the Hospital Universitario "Lozano Blesa" from January to December 2011 as first or second diagnosis COPD (ICD 491), emphysema (ICD 492) and chronic airflow obstruction air (ICD 496). We took demographic data, mortality, ICU stay, number of readmissions and cases that previously had LTOT and/or CPAP and/or use of NIV during admission.

Results: We reviewed 516 cases, of which 20% were women (N = 77), and 80% male (N = 299), with a mean age of 74.49 years (median 75 years). The average patient stay mean was 12 days, with a median of 10 days. 249 cases (48.3%) were admitted in Pulmonology, 222 (43%) in Internal Medicine and the remaining 45(8.7%) in other services. There was 184 cases (35.66%) of patients with respiratory failure, 134 needed LTOT (25.97%), 68 NIV (13.18%) and/or 22 CPAP (4.26%). Their mean age was 72.03 years (median 73 years). Their average patient stay mean were 13.43 days with 9.69% of readmissions in the previous 3 months. 4.07% of these patients were admitted to ICU. The mortality rate during hospitalization was 0.78%. Patients who required NIMV had a 30.88% of ICU admission and 10.29% of mortality. Patients with LTOT had a 6.72% of ICU admission and mortality and CPAP patients had 4.55% and 0% respectively. Patients without respiratory failure had an average patient stay of 11.27 days with 8.33% of readmissions. Their mean age was 75.86 years (median 77 years). Mortality rate was 2.33%. The ICU admission rate was 0.39%.

Discussion: In our study, patients with COPD and chronic respiratory failure have a higher rate of complications involving younger patients, longer hospital stays and readmissions and ICU stay 4 times greater than the other group. However, mortality rate during hospitalization in this group was low. Perhaps the fact that they are patients requiring invasive treatments is a possible reason. It should be noted that patients who required NIV had a high percentage of ICU admission and mortality in comparison with LTOT and CPAP. Finally, note that more studies are needed to verify that the observed differences are statistically significant.

Conclusions: 1. COPD patients with chronic respiratory failure have a higher percentage of ICU admission and use of NIV during readmission for exacerbation. 2. COPD patients with chronic respiratory failure have more respiratory complications at hospital income, but not increased mortality. 3. COPD patients with chronic respiratory failure have longer average hospital stay and more readmissions because of their exacerbation.

EA-60
B12 DEFICIENCY AT THE INTERNAL MEDICINE DEPARTMENT, A PHENOMENON TO CONSIDER?

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Objectives: Vitamin B12 deficiency is a common cause of megaloblastic anemia. It causes several neuropsychiatry symptoms and elevated homocysteine, and is common in elderly patients. There are many risk factors for this, among which are the treatments with inhibitors of proton pump inhibitors (PPIs) or metformin. The aim of this paper is to describe the characteristics of patients with vitamin B12 deficiency admitted to Internal Medicine Department (IMD).

Material and method: This is an observational, cross-sectional and retrospective study made in the IMD at the Clinical Hospital Lozano Blesa. It reviewed the reports of patients who were discharged and have this diagnosis. With this, data were collected: age, sex, personal history, routine treatment, blood tests at admission, vitamin B12, folic acid and iron metabolism levels, plus the additional tests performed. After, we did the statistical analysis that is presented.

Results: We reviewed 143 patients (64 men, 79 women) with a mean age of 79.18 years (SD ± 12.78). Among the pathologic precedents, the 79.02% of the patients was multimorbidity, hypertension being the most frequent (57.55%). 23 patients had a previous diagnosis of B12 deficiency, but continued with said deficiency despite the therapy in 61%. The most common reason for admission was cardiac failure and respiratory infection (both 20.86%), followed by anemia (11.51%), other infections (7.19%) and respiratory failure (4.31%). The most commonly used drugs: 43.88% of the patients took a PPI, 40.28% took ACE inhibitors, while 25.17% took metformin, for which no significant association with B12 deficiency was founded (p = 0.197, p = 0.822 and p = 0.119 respectively, through the Mann-Whitney U' test). The average number of vitamin B12 in these patients was 140.37 pg/ml, anemia presenting the 67.13% of patients with a mean hemoglobin of 11.18 g/dl, a mean hematocrit of 34.7% and a mean corpuscular volume of 90.26 fl. In addition, 24 patients associated folic acid deficiency, 48 iron deficiency and 97 patients hypoproteinemia (total proteins below 6.4g/dl). Intrinsic factor antibodies were determined in 71 patients. The homocysteine or parietal cells antibodies were not determined. The gastroscopy with biopsy was performed in 32 patients (23.02%), being most of them normal (18), 3 had atrophy, 7 chronic gastritis, 1 had neoplasia and 3 hiatal hernia. Treatment was administered to 118 patients, the majority by intramuscular administration (79.66%). Treatment was associated with folic acid in 38 patients.

Discussion: The average age of the patients in our study was high, consistent with the fact that most were patients with significant comorbidity and with the literature. PPIs and metformin treatments are very common, especially in elderly patients, and recent studies have shown their association with the increase in diagnoses. The deficiency can occur in 10-30% of patients taking metformin for a prolonged period. Data from our study seem to be consistent with these data as they are two of the most common drugs in patients reviewed. This suggests that it may be necessary to adjust the treatment, or at least its re-evaluation. Nevertheless, this claim would require larger studies to confirm it. The data found in our patients indicate a multifactorial origin of anemia, produced by concomitant diseases, hypoproteinemia and iron deficiency.

Conclusions: 1. The patients with B12 vitamin deficiency are elderly, have multimorbidity and anemia is likely multifactorial. 2. The use of IBP and metformin used by these patients is very high, consistent with existing literature, and while it may not be the only reason it should be considered in the future. 3. Larger studies are needed to ensure the significance of these findings and to assess the comorbidity and chronic treatment of these patients.

EA-61
MANAGEMENT OF CHRONIC DISEASE IN A MEDICAL DAY HOSPITAL

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Objectives: To analyze the characteristics of a medical day hospital with chronic disease patients.

Material and method: An observational prospective study of patients treated in Hospital Virgen de la Torre (chronic medical day hospital) with four daily assessments in 2011.

Results: A total of 331 patients were attended, 213 women (64.4%) and 118 men (35.6%). Mean age 83.27 ± 11.99 years old. We review 6 patients in February, 22 in March, 50 in April, 75 in May, 34 in June, 27 in July, 10 in Agost, 24 in September, 35 in October, 29 in November and 19 in December. The most frequent consultation complaints: clinical evaluation of chronic disease (236 patients; 71.3%), healing of pressure ulcers (52; 15.7%), transfusion (21; 6.3%), inclusion in our program of advanced chronic disease (9; 2.7%), paracentesis (7;2.1%), i.v treatments (3; 0.9%), administration of iron (2; 0.6%) and thoracocentesis (1;0.3%). The most frequent tests complaints: analysis (122; 36.9%), analysis and X-ray (103; 31.1%), healing of pressure ulcers (55; 16.6%), transfusion (19; 5.7%), e.v treatments (14; 4.2%), X-ray (9; 2.7%) and collection of results (9; 2.7%). The average time of stay was 4 ± 1.37 hours. 153 patients (46.2%) were derived from our incomes, revisions of our day hospital (81; 24.5), care support team home (26; 7.9%), primary care settings (70; 21.1%) and emergency department of our reference hospital (1; 0.3%). After the visit 277 patients (83.7%) were discharged and 54 (16.3%) were hospitalized.

Discussion: With this day hospital of a chronic disease, we have observed better tracking and a reduction of admissions in patients with advanced chronic disease. We should create appropriate workfare routes according to the needs of these patients, which include identification and new feedback loops between different levels of care and a much better management of these patients.

Conclusions: There is not an accepted model for the care of chronic patients; so would be a good improve to share information, statistics and methodology between units in order to manage the resources and be able to create standard operating procedures in chronic disease. It is essential to improve the control of these fragile patients through the creation of specific units for them, with new criteria, organization and methods in order to avoid unnecessary incomes and improve the life quality of these patients.

EA-62
MAJOR BLEEDING EVENTS IN ELDERLY PATIENTS WITH ATRIAL FIBRILLATION AND VITAMIN K ANTAGONISTS

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Objectives: To analyze the characteristics and main factors related to major bleeding episodes in elderly patients with atrial

fibrillation (AF) being treated with vitamin K antagonists (VKA), hospitalized in a General Internal Medicine Unit.

Material and method: Retrospective study that included patients over 75 years old, admitted to an Internal Medicine Unit for three consecutive years (2009-2011). All of them had previously been diagnosed with AF and were receiving VKA (acenocoumarol) and had a major bleeding event during this period. We analyzed demographic data, comorbidity indexes (Charlson and Charlson-age comorbidity indexes), the risk of bleeding by the HASBLED index, polypharmacy, overdosage of acenocoumarol (INR > 3) at the time of the major bleeding episode and death.

Results: A total of 1,069 patients with AF were admitted to our Unit during this period and 633 (59.2%) of them were receiving acenocumarol. 58 (9.1%) had a major bleeding episode (23 cases in 2009, 16 in 2010 and 19 in 2011). Mean age was 82.4 ± 4.5 years and 30 were males (51.7%). AF was classified as permanent in 53 (91.3%). 37 patients (63.8%) had a Charlson index ≥ 3 and mean Charlson-age index was 6.7 ± 1.7. The most commonly associated diseases were diabetes mellitus, hypertension and chronic heart failure. 19 (32.7%) patients were following treatment with 3-4 oral-drugs plus acenocumarol, and 31 (53.4%) with 5 or more. All of them had CHADS-VASC index ≥ 3 (mean CHADS-VASC was 4.96 ± 1.48). 34 patients (58.6%) had ≥ 3 HASBLED index. The bleeding origins were as follows: upper gastrointestinal tract 19 patients (32.7%), lower gastrointestinal tract 13 (22.4%), intracranial 11 (19%), muscular or subcutaneous 8 (13.8%), hemoptysis or epistaxis 4 (7%) and retroperitoneal 1 (1.7%). 30 patients (51.7%) had an INR > 3 at the time of the episode. This ratio was 2-3 in 13(22.4%) and < 2 in 15 (25.9%) that had a major bleeding episode. Overall mortality during admission was 12 (20.7%)) and 8 patients (13.8%) died as a direct result of bleeding. The main cause of death related was intracranial bleeding (6 cases, 75%).

Discussion: We observed a higher frequency of major bleeding events in elderly patients receiving VKA due to AF than that previously reported. There is a high related mortality, especially in patients presenting with intracranial bleeding. Comorbidity and polypharmacy is nearly constant in this population. There is a high rate of excessive anticoagulation in patients admitted to our Unit for major bleeding. However other patients develop this complication with INR in therapeutic or subtherapeutic ranges. It's possible that other factors may play an important role in these cases.

Conclusions: Major bleeding episodes have a high incidence and mortality in elderly patients with AF and VKA. This complication may be influenced by excessive anticoagulation but also by other factors inherent in them (comorbidity, polypharmacy, etc.). Nevertheless, this population may need a careful INR and clinical control. We suggest that new oral anticoagulants may play an important role in elderly patients with AF and high risk of bleeding, as VKA can be associated with high complication rates due to pharmacological interactions and individual INR fluctuations.

EA-63
SARCOPENIA AND DIABETES

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Objectives: The number of obese elderly is increasing worldwide and the prevalence of type two diabetes (T2DM) has increased in the ageing population and might contribute to co-morbid conditions. Sarcopenia, loss of muscle mass with age, is considered as a major cause of frailty and decreased independence in the elderly. Both sarcopenia and obesity are linked with insulin resistance and consequently with T2DM. We aim to establish the prevalence of sarcopenia and determine whether is associated with metabolic control.

Material and method: We performed a cross- sectional analysis in a two month period using patients of 65 years or older with T2DM, attending a diabetic appointment in a countryside hospital. Data about epidemiology, metabolic and socio-economic parameters was collected. Anthropometric evaluation included weight, height, body mass index (BMI), body circumference (arm, hip, abdominal, leg, waist and calf) and triceps skinfold (TS); arm fat index (AFI) and arm muscle index (AMI) were calculated using Gurney and Yelliffe equation and Heymsfield equation respectively. We used SPSS v17 for statistical analysis.

Results: We evaluated 129 patients, 41.4% male. Mean age was 72.7 years (65-89), being women older. Patients were diagnosed, in mean, 14 years ago; 0.9% were active smokers, 83.9% had high blood pressure, 63.4% had dyslipidemia and 16.9% declared alcoholic consume (> 3 units per week). Only 23% declared to perform physical exercise of any kind. In general, patients had average hemoglobin A1C levels of 7.9% (42% had a good metabolic control with levels < 7%), with no differences in gender. Women had significantly lower education and income compared with men ($p < 0.05$). The BMI was greater in women ($p < 0.01$); the mean abdominal circumference was 107.8 cm with no difference in gender. The mean lower leg circumference (LC) 31.3 cm, the mean TS was 2.6 cm. Patients who had: bigger AFI, abdominal circumference and BMI, less leg circumference, and perform no exercise had worse metabolic control ($p < 0.027$) being more in women ($p < 0.003$).

Discussion: Loss of muscle mass and obesity were associated with adverse metabolic control, and the association was stronger in the patients over 80 years of age. Several studies had similar conclusions but almost all used bioelectrical impedance to measure muscle mass and determine sarcopenia. Anthropometric evaluation performed by trained health workers is inexpensive, non-invasive and provides detailed information on different components of body structure.

Conclusions: Our findings suggest that obesity and loss of muscle mass may potentiate each other and amplify their impact in the metabolic control. Physicians must be aware of this and determine the nutritional status of older diabetic patients using anthropometric measures which are simple and cheap. A careful nutritional intervention combined with stretching and resistance training exercise programmes in the older diabetic may be beneficial.

EA-64
IDENTIFICATION OF END OF LIFE TRAJECTORY IN PATIENTS WITH ADVANCED CHRONIC MEDICAL CONDITIONS. THE PALIAR SCORE

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Objectives: To develop a new reliable prognostic tool that allows us to identify the path of end of life (death in 6 months) in patients with advanced medical diseases.

Material and method: Prospective observational study in 41 Spanish hospitals, with inclusion of patients during hospitalization, office, or home hospitalization with one or more of the following conditions: heart failure with basal dyspnea ≥ III of the NYHA;

respiratory failure with basal dyspnea MRC ≥ III and/or $satO_2$ < 90% and/or chronic home oxygen treatment; chronic renal failure stage 4 or 5 of NKF; chronic liver disease with a Child-Pugh score ≥ 7; chronic neurological disease with established cognitive and/or functional impairment (Pfeiffer ≥ 6/MEC ≤ 18/Barthel ≤ 60). Patients were followed during 6 months, or until primary end-point (death) occurred. Potential risk factors of mortality were obtained of the multidimensional clinical data in the 1788 (96.8% of the 1847 recruited patients), who completed the follow-up. Each factor independently associated with mortality in the derivation cohort (884 patients of the hospitals in the eastern half of the country) was assigned a prognostic weight in function of its relative risk; subsequently the PALIAR index was calculated for each patient by summing the points of each prognostic factor. Then, patients were divided into quartiles of risk, according to the likelihood of dying predicted by the model, thus obtaining risk subgroups. The accuracy of the index in the derivation cohort and validation (894 patients of the hospitals in the western half of the country) were assessed by analysing its calibration (goodness of fit Hosmer-Lemeshow, and Kaplan-Meier curves with the logarithm of the rank test); and its discriminative power (using ROC curves and calculation of the area under the curve). Finally we compared the accuracy of PALIAR index with that obtained with the Charlson index (CI), the age-adjusted CI, and the Palliative Prognostic Index (PPI).

Results: Mortality in derivation/validation cohorts was 37.6%/37.7%, respectively. We identified 6 independent predictors of mortality, which were used to build the index (≥ 85 age years, 3 points; IV functional class on NYHA/MRC, 3.5 points; anorexia, 3.5 points; presence of skin pressure ulcer(s), 3 points; the need to stay more than 50% of the vigil time in bed or bedridden (ECOG-PS ≥ 3), 4 points; and albuminemia ≤ 2.5 g/dL, 4 points). Mortality in derivation/validation cohorts according to ascending risk-groups was 20/21.5% for patients with 0 points; 33/30.5% for those with 3-3.5 points; 46.3/43% for those with 6-7 points; and 67/61% for those who reached 7.5 or more points, respectively. The calibration was good in both cohorts (goodness of fit through the test of Hosmer-Lemeshov (H-L), p = 0.92/p = 0.39; log-rank test on the combined strata p = 0.0001), as well as the discriminative power (area under the ROC curve in derivation/validation cohort of 0.71 [0.67-0.75]/0.68 [0.66-0.72], respectively). The calibration of the CI (H-L with p 0.09), PPI (H-L with p 0.37), and age-adjusted CI (H-L with p 0.0001) were good except of the latest one; while their discriminative power (area under the ROC curve 0.52 [0.49-0.55], 0.67 [0.65-0.71], 0.57 [0.54-0.59], respectively), was lower than the obtained with PALIAR index.

Conclusions: The PALIAR index is a precise and reliable tool to identify the end-of-life trajectory in patients with advanced medical diseases.

EA-65
IMPACT OF MULTIDISCIPLINARY INTERVENTION IN FRAIL PATIENT WITH HIP FRACTURE

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Objectives: To value the impact of the intervention of a multidisciplinary team (MDT) on health care assistance in frail patients with hip fracture.

Material and method: Descriptive and retrospective study of patients > 65 years old admitted for fracture of proximal femur. Period: October 2010-December 2011. We assessed: 1) Socio-demographic and Clinical data: type of fracture, Geriatric assessment, comorbidities and complications. 2) Process indicators: every patient had an anesthetic, traumathologic, geriatric assessment < 24 hours of admission. Intervention < 48 hours. Surgical waiting time, length of stay, destination at discharge. We also performed a retrospective analysis of the patients seen by conventional orthopedic unit (COU) during the period August 2009 to September 2010. We compared the differences: length of stay and time of surgical waiting time.

Results: MDT group: 152 patients, median age 84, 73% women, one third of the patients live alone, 50% have architectonic barriers, 26% are illiterate. Type of fracture: 40% subcapital, 57% intertrochanteric. 75% have mild functional dependence before admission, and at discharge, 83% moderate to very severe dependence. Charlson 1.93 ± 1.7, and 33% have dementia. 75% have some degree of malnutrition. Mean MNA 15.6 points. Complications: delirium 32%, nosocomial infections 13% (urinary most frequent), heart failure 11%. ASA ≥ 3: 53%. Process indicators: 47% underwent surgery in less than 48 h. Causes for delay: being on anticoagulation therapy (12%), logistics (21%), weekend (9.2%), decompensated underlying disease 8.6%. Length of stay: 14.5 days. Mean surgical waiting time: 3.8 days. For discharge: 60% Geriatric Rehabilitation Unit, 32% Home, death 4.6%. COU Group: 137 patients, median age 82, 82% women. Type of fracture: no difference compared with the MDT group. Length of stay: 19.6 days, 18.8% underwent surgery in less than 48 hours. Mean surgical waiting time 6.4 days. Deaths: 5.1%.

Discussion: There are statistically significant differences between length of stay (14.5MDT vs 19.5 COU, p < 0.0001) and surgical intervention less than 48 hours (47%MDT vs 18.8% COU, p < 0.0001). The difference in the total number of deaths is not statistically significant (4.6% vs 5.1%, p = 0.19).

Conclusions: Multidisciplinary intervention in frail patient with fracture of proximal femur has decreased significantly the mean time of hospitalization and the delay in surgical intervention.

EA-66
QUALITY ASSESSMENT OF HOSPITAL REPORTS OF NONAGENARIANS PATIENTS IN INTERNAL MEDICINE

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Objectives: Evaluate the clinical characteristics of our patients and the quality of global and geriatric information of hospital reports in our service.

Material and method: We analyzed discharge, transfer and death reports of all nonagenarians patients admitted in to our service between June and December of 2010. Epidemiological, social, clinical and administrative data were collected. Statistical analysis was made using SPSS 19.0.

Results: 217 nonagenarians patients were admitted (mean age 92.37 years). 58.1% were female. The average hospital stay was 9.37 days. Regarding the social situation of these patients, 21.7% lived in their own homes, 53.5% accompanied by other relatives and 24.4% were institutionalized. The most common diagnoses were infectious disease (38.2%) and heart failure (CHF) with 33.6%. The Charlson index (CI) of these patients was 3.03. Mortality during hospitalization was 18%. According to the minimum set of data (CMD) of hospital reports: 86.6% included the reason for admission (MI), 95.9% personal history (AP), 93.5% current disease (AD) 96.3% patient outcomes (E), 94.9% diagnosis (D) at discharge and only 73.7% had the recommended treatment (T). Geriatric and cognitive assessments were included only in 13.8% and 11.1% of reports. In the case of patients with CHF, which was the largest homogeneous group of diagnosis, we observed infra-utilization of functional and cognitive scales, and a lower incidence of delirium. In the case of

patients who died, the worst completed reports were statistically significant for AP, EA, EF and D ($p < 0.001$) and the absence of clinical course (p 0.03). Furthermore, these patients had significantly more episodes of acute confusional state (33.3 vs 18.5%) (p 0.03).

Discussion: The clinical reports are an essential communication between doctor, patient and family, and other health professionals. In our series, our reports are well- completed with relation to CMD. Although there is a deficit in comparison with other works, to adapt the document that often accompanies the patient, who is in a fragile state. However, the quality of death reports is considerably lower, because they do not include the majority of items. The relationship between delirium and mortality has been described before, however, in our cases, this relationship must be determined with caution. The data reflected in the reports are focused on the context in which death occurs. In any case, the fact of not being reflected in the report does not necessarily mean it did not happen.

Conclusions: In our center, hospital discharge reports usually have the CMD. Death reports are of poorer quality than the others, because they are incomplete. Geriatric assessment and use of scales is limited.

EA-67
CHRONIC OBSTRUCTIVE PULMONARY DISEASE, COMORBIDITIES AND COMPLEXITY OF THE PATIENTS: STUDY DESIGN AND PRELIMINARY RESULTS OF THE COMPLEXICO STUDY FROM THE SCIENTIFIC SOCIETY FADOI

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Objectives: Comorbidities and general lifestyle conditions affect disease management and clinical outcome in patients with chronic obstructive pulmonary disease (COPD). Patients hospitalized in Internal Medicine (IM) are frequently elderly, with a great burden of comorbidity and frailty. Aim of the study is to evaluate the prevalence of COPD among patients hospitalized in IM, the percentage of COPD patients with at least three concomitant chronic diseases, and the global complexity of COPD patients referring to IM departments.

Material and method: This is an observational study involving 44 IM Units in Italy. At least 1000 consecutive patients hospitalized for any cause with known or de novo diagnosis of COPD documented by spirometry will be included. Frailty of COPD patients was described by means of the Multidimensional Prognostic Index (MPI), whose prognostic value is considered higher than those provided by the individual parameters included in the score (e.g.: Activities/ Instrumental Activities of Daily Living, Short-Portable Mental Status Questionnaire, Mini-Nutritional Assessment, Exton-Smith Score, Comorbidity Index Rating Scale, medications, and co-habitation status) in predicting short- and long-term mortality.

Results: The study started in February 2012 and the estimated conclusion is in September 2012. At the time of abstract submission, around 700 patients have been included in the study, and data from the first 100 enrolled patients are available. According to these preliminary data, the prevalence of COPD in IM wards was found to be 22.2%. Sixty-seven percent of patients had at least three chronic diseases other than COPD. At the time of hospitalization, 15.0% of the patients were receiving antibiotic for COPD, 31.0% bronchodilators, 10.0% corticosteroid and 38.0% bronchodilators + corticosteroid; at discharge the percentages were 28.0%, 27.0%, 7.0% and 82.0%, respectively. Oxygen therapy for COPD was used in the 82.0% of the patients, and mechanic ventilation in 7.0%. The mean MPI score was 0.42 ± 0.15 and according to a stratification algorithm 37.0% of patients were classified as having low-risk, 52.0% at moderate-risk and 11.0% at severe-risk.

Discussion: COPD is one of the most frequent diseases in patients admitted in IM wards. Neither administrative indicators nor comorbidity indexes are able -for themselves -to define the complexity of patients with COPD who are hospitalized in IM Units. The MPI score has been recently proposed and studied in a number of diseases, to evaluate complexity and predict prognosis of the patients. Our study, by assessing the complexity of COPD patients, may help to raise awareness of physicians on this issue.

Conclusions: The study is ongoing and the final results will be presented at the time of EFIM Congress. Preliminary data confirm that COPD patients have a relevant level of comorbidity. A comprehensive multidimensional assessment of their complexity by MPI index is useful for the prognostic stratification of our patients.

EA-68
POSTPRANDIAL TRIGLYCERIDE INCREASE IS INFLUENCED BY AGE-ASSOCIATED FEATURES OF METABOLIC POSTPRANDIAL STATE IS AFFECTED BY AGE-ASSOCIATED FEATURES OF METABOLIC SYNDROME, BUT NOT BY AGE

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Objectives: Postprandial lipemia influences the development of atherosclerosis. Age has been defined as a regulating factor of the extent of postprandial lipemia, but its independence of other age-associated phenotypic features, such as metabolic syndrome, has not been fully elucidated. To investigate if age is an independent factor influencing postprandial lipemia.

Material and method: We compared the lipemic response to a rich fatty meal (60% fat) of 88 healthy young men (< 30 years old) and 97 older participants (77 Metabolic Syndrome patients aged > 40; and 20 healthy elderly people > 65) (all ApoE3/E3), at fasting state and at 2nd and 4th postprandial hours.

Results: We didn't find differences between the healthy young men and the healthy elderly. The Metabolic Syndrome patients displayed a higher postprandial TG area below the curve than the other two cohorts $p < 0.001$. ANOVA for repeated measurements confirmed that these differences were significant at every time-point (fasting, 2h and 4h). Concomitant higher responses for Large and Small TRL-carried TG and Chol were found in these metabolic syndrome patients. Interestingly, the most significant differences were found for Small-TRL carried particles, which suggest that this fact may be mainly due to impaired lipid clearance.

Discussion: Although age has been proposed as a key factor influencing postprandial lipemia, this fact comes from studies in which other factors, such as metabolic syndrome criteria, have not been controlled. As the prevalence of these criteria increases with age, we aimed to explore if this association between age and high postprandial triglyceridemia remains after controlling by metabolic syndrome criteria. In our setting, age was not related to higher postprandial lipemia, but the existence of metabolic syndrome

was. These findings may increase our knowledge of the lipid metabolism and physiology, especially in elderly persons.

Conclusions: Metabolic Syndrome may account for the differences in postprandial lipemia that have been attributed to age. In our study, there were no significant differences in postprandial lipemia between a young population (mean age 22.6 years) and an elderly one (67.2 years) without metabolic syndrome.

EA-69
THE IMPACT OF COMORBIDITIES IN OLD CANCER PATIENTS MANAGEMENT: A SINGLE PORTUGUESE INSTITUTION EXPERIENCE

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Objectives: Cancer is the leading cause of death in women and men with more than 65 years, which represents 17.9% of the Portuguese population. Biological characteristics of certain cancers are different in older patients, and are also less tolerant to chemotherapy. Advanced age alone should not be the only criteria to exclude effective cancer treatment that could improve quality of life or survival. We aim to describe the influence of comorbidities on the management of oncogeriatric patients.

Material and method: Retrospective study of clinical charts of cancer patients (pts) with 65 years old or more, attending for the first time an Oncology appointment during 2011 in a countryside hospital in Portugal. Epidemiological and clinical data, Charlson Comorbidity Index (CCI) excluding cancer diagnosis, performance status (PS) score and survival was assessed in all patients. Descriptive statistics methods, t-Student test for comparison between continuous variables and Chi-square/Fisher-exact test for categorical variables were applied using the statistical software SPSS v17 for Windows (Chicago, IL).

Results: From a total of 311 patients, 171 were included representing 55%, 52% were male. Age groups: "young old" patients (65-75yo) = 55.6%, "old" patients (76-85yo) = 42.7% and "oldest old" patients (≥ 86yo) = 1.8%. Main primary site of cancer was: colon (29.8%), breast (18.7%), rectum (16.4%), prostate (11.1%) and stomach (5.8%). Metastatic disease was present in 39.5% of cases: liver (49.9%), lung (27.4%) and bone (24.2%). Most patients were stage III or IV and 8.8% had a second cancer diagnosis. Performance status was 0 in 56.7%, 1 in 30.4% and ≥ 2 in 12.9%. Mean CCI was 0.78 ± 1.1 (≥ 2 = 7.6%). 72.5% received chemotherapy and in 52.8% of pts there was a dose reduction; 34% had type III/IV toxicities (mucosal-19.6%, hematological-15.9%). 39.2% underwent radiotherapy (type III radiodermitis in 34.1%). CCI in pts with dose reduction was 0.7 ± 0.98 vs 0.62 ± 1 in pts who continued on normal doses (p = 0.71). Patients with type III/IV scored 0.83 ± 1.2 on CCI vs 0.57 ± 0.9 in patients without toxicity (p = 0.209). There were 32 deaths (18.7%, median survival of 5 months; 84.4% stage IV) after median follow-up of 11 months. Patients who died had higher CCI score (1.25 ± 1.44 vs 0.67 ± 0.98; p = 0.038), were older (median age = 74 vs 75yo; p = 0.171), required more frequently dose reductions (64.7% vs 52.1%; p = 0.336) and presented more toxicities during treatment (47.1% vs 31.1%; p = 0.202).

Discussion: In our study, fatalities had higher CCI score, thus indicating that comorbidities may have contributed to mortality in a group of advanced cancer patients. In this group, we didn't found a clear relation between higher CCI and toxicities or dose reduction, but patients had in general low CCI and PS scores. Multiple studies have shown that comorbidity is directly associated with variables such as age, survival, recommended treatment, disability and health service utilization. Moreover, comorbidities can interact with chemotherapy regimens and increase the chance of toxicity, especially in older patients. The use of comorbidity scales has been recommended in the management of elderly cancer patients.

Conclusions: Management of old cancer patients should be individualized and based not only upon patients characteristics, but nature of disease, physiologic status, comorbidities and patient's preference in order to guarantee better outcomes in terms of survival and quality of life.

EA-70
DEFICIENCY OF FOLIC ACID IN PATIENTS ADMITTED TO AN INTERNAL MEDICINE

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Objectives: to review the diagnosis of folic acid deficiency (FAD) in our Department of Internal Medicine to see the clinical features of these patients.

Material and method: We reviewed the medical records of patients discharged in 2011 with a diagnosis of FAD of Internal Medicine of our hospital. We considered FAD when plasma levels were lower than 3 µg/L (normal range 3-17). We collected demographic data, principal diagnosis (since FAD is a secondary diagnosis), review of medical history, levels of vitamin B12, blood count with hemoglobin, hematocrit, mean corpuscular volume (MCV) and corpuscular hemoglobin medium (CHM) malnutrition parameters as total protein (TP), albumin, cholesterol, and lymphocytes, and other information that may be related to folic acid deficiency.

Results: Twenty-eight patients have been diagnosed with FAD, all as secondary diagnosis. The mean age was 75.5 years with a median of 80. The mean folic acid levels were 2.3 µg/L. Only 4 patients (14%) had also vitamin B12 deficiency (< 179) with a mean of 383 ng/L. Anemia was found in 23 (82%) patients, whom had increased MCV 8 (28%) with average values of 95 ± 3 (normal: 80.2-99.4) and CHM was elevated in 6 samples (21%) with a mean of 32.2 pg. (normal: 26.1-34.2). Within the nutritional parameters, there was decrease in the TP in 19 patients (68%) with a mean of 5.6 g/dl. (Normal: 6-8). Low levels of albumin were found in 17 (60%). Cholesterol was decreased in 5 patients (18%) with a mean value of 147 mg/dl (normal value of 110-220) and there was lymphopenia (< 0.7 × 10^9/l lymphocytes) in 8 (28%) patients. The primary diagnosis for admission was respiratory infection in 10 patients (36%) followed by tumor disease in 5 (18%) patients and digestive diseases (colitis or gastroenteritis) in 4 (14%). Within clinical antecedents, the most frequent diagnosis were cognitive impairment in 8 (28%), heart disease or cancer in 7 (25%) and COPD or alcoholism in 4 (14%).

Discussion: Due to the characteristics of our patients of Internal Medicine we should have found a higher rate of FAD. However, we have had a low index of diagnosis of FAD (28 patients over 1700 patients admitted in one year). We believe that on being a secondary diagnosis often is not reflected as a diagnosis, even when it has been treated. The mean age of patients with FAD is 75.5 (median: 80) years, while the mean age of the totality of patients of Internal Medicine is 73.5 (median: 77) years, being slightly older than usual. We have observed a low association of FAD with B12 (14%) deficiency. Regarding the development of anemia, 83% of patients had it, but it is surprising that only 28% of them had an increased MCV and only 21% an increased CHM. Regarding nutritional parameters hypoproteinemia appears in 68% and hypoalbuminemia in 60%. Cholesterol is only decreased in 18% of patients and

lymphopenia in 28%. Thus, we consider more important as desnutrition parameter associated with DAF the PT. The main primary diagnosis associated with DAF were the respiratory infection (caused by dementia with lung aspiration and COPD) in 36% patients and with tumors in18% patients, being all of them a risk for malnutrition. In the patients with DAF, 28% of them had clinical antecedents of cognitive impairment, however only 25% of them had a history of previous heart disease (atrial fibrillation, heart failure, ischemic heart disease, valvular heart disease). However, patients with cardiac disease are the most prevalent patients in Internal Medicine (about 40%).

Conclusions: We believe important include into the diagnosis panel the DAF for calculating DRG (diagnostic related groups) patients. We recommend the measurement of folic acid levels in patients with low TP, anemia (whether the CHM or MCV are increased or not), in patients admitted with exacerbated COPD and patients with a history of cognitive impairment or alcoholism.

EA-71
IMPLICATIONS OF DEPRESSIVE SYMPTOMS IN HOSPITALIZED ELDERLY MEDICAL PATIENTS

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Objectives: The aim of the study was estimate the prevalence of depressive symptoms in hospitalized elderly patients and its relationship to various diseases, as well as their functional and mental status and mortality.

Material and method: We prospectively studied 115 patients over 64 years of age. The validated Spanish version of the geriatric depression scale of Yesavage (15-item version) was used. Patients were considered to have depressive symptoms if ≥ 6 points were obtained. The demographic characteristics, the Charlson comorbidity index, the diagnosis at admission, the functional status assessed by the Barthel and Lawton-Brodie index, the mental capacity assessed by the Pfeiffer questionnaire, the length of the hospital stay and hospital mortality were considered.

Results: Out of the 115 patients studied with a mean age of 70.5 years, 71 (61.7%) were female. Depressive symptoms were observed in 46 patients (40%, 95%CI 34.8 - 43.9). Patients who died showed a significantly higher score on the Yesavage scale (p = 0.04). The multivariate analysis showed a significantly independent association between depressive symptoms and functional capacity (p = 0.026), mental capacity (p = 0.023), renal failure (p = 0.001), hepatopathy (p = 0.018), malignancy (p = 0.01), and osteoarthritis, but losing the previously seen significant association with diabetes (p = 0.44).

Discussion: Depressive symptoms in hospitalized patients are very common, and they are often not recognized by healthcare professionals. They have been related to higher mortality and to worse outcome of many medical illnesses. However, depression is not an inevitable part of aging, it is often linked to physical illness and loss of functional and mental status. Elders with multiple comorbidities may be particularly vulnerable to the debilitating impact of depression. The coexistence of depression and somatic disease seems to be provoking a double route of interaction: the physical disease interferes in the recovery of the depression and, on the other hand, the depression interferes the recovery of the somatic disease.

Conclusions: The prevalence of depressive symptoms in hospitalized elderly patients is high, and is associated with the diagnoses of renal failure, malignancies, liver disease and osteoarthritis, with a higher comorbidity, and especially with a poorer functional capacity.

EA-72
PREVALENCE AND IMPACT OF SARCOPENIA IN A MEDIUM TO LONG STAY UNIT

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Objectives: Sarcopenia is a common syndrome but not well known, which is defined as a loss of skeletal muscle mass along with a decrease of both strength and muscle performance. It is associated with an impaired quality of life, increasing disability and mortality. Our goal was to assess the prevalence of sarcopenia in a population of elderly patients admitted in the Medium to Long Stay Unit (MLSU) of a universitary hospital. Also we studied its possible association with etiologic factors such as malnutrition and inactivity, and its potential impact in terms of disability, dysphagia and complications of pressure ulcers.

Material and method: We performed a descriptive, cross-sectional and observational study including 81 patients admitted to the MLSU over 3 months. They were evaluated by an interdisciplinary team composed by nurses, internists and rehabilitation physicians. Administrative and management data (age, sex), cognitive status (Pfeiffer), comorbidity (Charlson), functional capacity (Barthel), physical activity, malnutrition (MNA validated test), anthropometric assessment, presence of pressure ulcers and dysphagia (test volume viscosity) were recorded. Sarcopenia requires the demonstration of decreased muscle mass (bioelectrical impedance analysis) plus decreased strength (manual dynamometry) or impaired physical performance tests. Results are expressed in mean, standard deviation and percentages.

Results: The age of our patients was 78.51 (12), with 51.9% men and 48.1% women. The stay length was 18.54 days (11.99). The Charlson index showed that 60.5% of them had comorbidity. The Barthel index media was 32.5 (25), where 67.5% of patients had severe or total dependence, and 33.3% had mild to severe cognitive impairment (Pfeiffer). Their BMI was 21.23 (8), MNA test showing 55.6% of malnourished patients. Of all patients 81% maintained a sedentary physical activity, and 22.2% had pressure ulcers. The overall prevalence of sarcopenia was 81.6%, most of it was severe sarcopenia (91.9%). Only 15.8% of all patients did not present any diagnostic criteria. The percentage of sarcopenia among men and women was 73.8% and 76.3%, respectively. We obtained a statistically significant relationship between sarcopenia and age (p = 0.037), triceps skinfold (p = 0.009), malnutrition (p = 0.025) and the estimated weight (p = 0.000).

Discussion: The prevalence of sarcopenia in our population was very high, showing rates similar to those reported in the literature, and showing no significant differences between sexes. Advanced age and malnutrition were associated with statistically significant sarcopenia, and probably both act as important etiological factors. However, this difference was not obtained for other relevant factors: physical activity, comorbidity and disability, probably due to the high degree of comorbidity and dependence of all patients in our sample. Estimated weight and triceps skinfold could be a clinical marker for screening, because they are simple-to-obtain determinations and they are related with the presence of sarcopenia.

Conclusions: Sarcopenia is a highly prevalent syndrome in the elderly population hospitalized in chronic units, and not often evaluated in our medium. With its implications in terms of morbidity and mortality it's important to make a proper diagnosis. Estimated weight and triceps skinfold are two determinations of potential usefulness. It is necessary to conduct studies with a larger population and a prospective basis to provide a better understanding of both their prognosis and their possible therapeutic approaches.

EA-73
PREDICTORS OF MORTALITY IN ASPIRATION PNEUMONIAE

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Objectives: Aspiration pneumonia is developed as a result of the abnormal entry of fluids, secretions, exogenous or endogenous substances in the lower airways. This process involves a high mortality that can exceed 50%. The aim of the present study was to analyze the prevalence of aspiration pneumonia in patients admitted to Internal Medicine and predisposing factors for mortality and readmissions.

Material and method: Observational transversal study evaluating patients admitted to the Internal Medicine Department during 2010 and 2011 with the diagnosis (primary or secondary) of aspiration pneumonia, respiratory infection for aspiration or aspiration, obtained through the coding system of the Center. We analyzed relevant past medical history, treatment received, number of subsequent readmissions and mortality, in order to compare the efficacy of different therapeutic measures. We evaluated comorbidity through the Charlson score.

Results: We evaluated 217 patients (60.4% male), mean age being 81 years old (SD 11.9). The most common reasons for admission were aspiration pneumonia (47%), aspiration (15.7%), respiratory infection (7.8%), stroke (5.1%) and sepsis (2.3%). 60.7% of patients scored > 3 on Charlson Score. The most common causes of dysphagia were dementia (52.7%), stroke (29.5%), neurodegenerative disease (24.9%) and neuromuscular disease (1.8%). The average length of stay was 11.4 days (SD 10.2), with a mortality of 42% (61% male, 30% women). Neither age, sex, or Charlson Score were assessed as significantly associated with mortality. Mortality was related to the value of albumin so more deaths happened in patients with albumin lower than 3 mg/dL ($p < 0.05$) Regarding treatment, 15.7% of the patients received nutritional support by nasogastric or nasoenteric tube and 3.7% by gastrostomy tube. Only 11.2% of the patients were assessed by the Nutrition Unit, either before or during the admission. In this study, both in univariate and multivariate analysis, assessment by Nutrition Unit was a significant factor as a predictor of mortality. Among the patients assessed by the Nutrition Unit, there were fewer deaths (13.6% vs 44%, p 0.006). Patients who were placed a feeding tube or gastrostomy also had lower mortality (47% vs 53%, p 0.001; 14.7% vs 85%, p 0.022). With regard to the prescribed diet, the percentage of deaths was higher when food consistency was not adapted (31.3%), than if texture was modified (6%) or if tube feeding was prescribed (10%), $p < 0.0001$.

Conclusions: Aspiration pneumonia is a common complication in our setting that bears a high mortality. A multidisciplinary approach is required, as assessment by a Nutrition Unit and the setting of appropriate measures (tube feeding, diet consistency changes) are predictive factors, in this study, for lower mortality.

EA-74
PREVALENCE AND IMPACT OF OROPHARYNGEAL DYSPHAGIA IN A MEDIUM TO LONG STAY HOSPITAL UNIT

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Objectives: Oropharyngeal dysphagia (OPD) is a common disorder in elderly hospitalized patients which may have a negative impact. This study aims to assess the prevalence of OPD in a population of patients admitted in the Medium to Long Stay Unit of a universitary hospital. We evaluated its possible relationship with potential etiological factors such as cognitive impairment, disorders in oral health and sarcopenia. The possible association with consequences such as malnutrition or aspirative pneumonia (AP) was studied.

Material and method: Descriptive, cross-sectional and observational study including 81 patients admitted over a period of 3 months and evaluated by a multidisciplinary team. General data (age, sex, stay length...), comorbidity (Charlson), cognitive impairment (Pfeiffer), functional status (Barthel), presence of AP and malnutrition (Mini Nutritional Assessment) were recorded. OPD was evaluated by the EAT-10 screening test and the volume-viscosity test (V-VST). The quality of life associated with oral-dental greeting was studied by the GOHAI index. The presence of sarcopenia was studied by a bioelectrical impedance analysis, manual dynamometry and physical performance tests.

Results: The mean age of the group was 78.5 years (SD 12.8) of whom 51.9% were men. Most of them had comorbidity (60.5%). Barthel index showed 67.5% of patients having severe or total dependence; 33.3% had mild to severe cognitive impairment (Pfeiffer). The screening test (EAT-10) was positive in 37% of patients, and the V-VST was pathologic in 46%. GOHAI test confirmed the impact in the life quality of all our patients.

Discussion: The elderly ages and currency of comorbidity, as cognitive impairment and functional decline, reflect the complexity and fragility of the population studied. OPD was highly prevalent in our group, similar to those reported in literature. The EAT 10 turned out to be not reliable in our setting as a screening method, probably because of the cognitive impairment of our patients. The V-VST was a useful way for the diagnosis of dysphagia, and no safety problems appeared in our study. A relationship between OPD and some clinical conditions (age, mental decline and functional status) was found, this could be explained in terms of causality. It was related too with malnutrition, although we were not able to prove a relationship with other possible consequences as AP and sarcopenia.

Conclusions: OPD is a problem of elevated prevalence and impact in our population. Systematic diagnosis by the V-VST seems highly recommendable in elderly and pluripathological patients. It is necessary to conduct larger and prospective studies to provide a better understanding of both its prognosis and its therapeutic approaches.

Table (EA-74)

	OPD + (%)	OPD – (%)	p
Sarcopenia	41.89	40.54	0.123
Severe cognitive impairment	20.25	1.27	0.00
Severe physical dependence	35.90	8.97	0.00
Malnutrition	36.71	17.72	0.00
Aspirative pneumonia	3.80	8.86	0.32

EA-75
INTEGRAL CARE TO PLURIPATHOLOGIC PATIENTS IN A SHORT STAY UNIT IS IT POSSIBLE?

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Objectives: To analyze the demographic, medical history, comorbidity, diagnosis, and diagnostic complexity average stay of pluripathologic patients admitted to a short stay unit dependent of Internal Medicine (UCEMI) in a third level hospital.

Material and method: Descriptive study of all patients with comorbidity criteria admitted consecutively in our Short Stay Unit of Internal Medicine (UCEMI), San Cecilio University Hospital from July 1 to November 30 of 2011y were derivatives at discharge to home. The unit consists of 8 inpatient beds, two senior doctors and a medical resident. Data were extracted from the databases and hospital UCEMI and analyzed with SPSS V19.0.

Results: During this period the unit had a total of 196 patients, accounting for 23% of the total casuistry Internal Medicine. Of these, 89 patients (45.4%) had pluripathologic. These were 49 women (56%) and 40 men (44%) with a mean age of 78 years and a mean Barthel index of 32 and a Charlson index of 9. The average stay of 3.62 days was obtained and there were only 7 readmissions (7.8%). Analyzing the main diagnoses of patients discharged to home we see that 35 (39.32%) patients had respiratory disease, 26 (29.21%), cardiovascular disease, 14 (15.73%) nephrourologic disease, 10 (11.23%) gastrointestinal disorders and 8 (8.98%) neurological diseases. Personal history were more frequently associated hypertension in 83.1%, 70% structural heart disease, diabetes mellitus 55%, COPD 43%, 36% renal insufficiency, atrial fibrillation and advanced dementia 31.5% to 30% of cases. In addition, comorbidity was very high with an average of 4.02 diagnoses.

Discussion: UCEMIs represent an alternative to conventional hospitalization in pluripathologic patients, to be effective in improving the care and management parameters without losses in quality of care. The results drawn from our analysis that these patients are observed, whenever a selection is strict income and have a good family support may be suitable candidates for management in these units, this being very important in hospital management because of the significant reduction in hospital stay, resulting in cost savings without reductions in the quality of care or increasing the number of readmissions compared with conventional hospital units. The objective of UCEMIs should not compete with the conventional hospital medical units, but be a support to them so we should work together to develop protocols. Finally, we believe that such units must be managed by internists given the variety of diseases that are addressed and overview of the patient. This study presents the limitations of a retrospective descriptive analysis, with no control group, so we believe it would be interesting and necessary to carry out new and larger studies analyzing baseline characteristics and adequacy of income to assess the impact UCEMIs real, yet in our study, in terms of length of stay, comorbidities and patient characteristics not very different from the published literature.

EA-76
PROLONGED HOSPITAL STAYS: STUDY IN A REGIONAL HOSPITAL

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Objectives: Describe the number of patients who have long-term hospital stay and analyze the causes which may have contributed to it.

Material and method: We conducted a descriptive retrospective study, in order to assess the percentage of patients who maintained a long-term hospital stay (with a duration of 30 days or longer). Several variables were analyzed such as: age, sex, length of stay, reason for admission, comorbidity criteria, development of nosocomial infection, early readmission (< 15 days), social problems or if the process ended up with the death of the patient. SPSS 15.0 for Windows was used to carry out the analysis of the results.

Results: We obtained a sample of 50 patients with prolonged hospital stay in Internal Medicine at 2011, with a mean age of 70.6 years (28-97). Mean duration of hospital stay was 39.9 days (29-77). Reasons for admission, classified by type of pathology, show the following results: the most common infectious disease was (46%). In more than half of the cases, 27 patients (54%) criteria of multiple pathologies were met. 32% developed nosocomial infection (being urinary focality the most frequent). Only 6 patients (12%) were readmitted within 15 days after discharge. 18% of the patients appeared to have social problems according to the study. Finally, 26 patients with long-term hospital stay died (52%).

Discussion: Long-term hospital stay is an increasingly common problem in our environment, possibly determined by the process of population aging. This kind of admissions demands an increase of the attention and cares needed which has an impact on health expenditure. Programs of continue assistance shared with Primary Care Services are proposed for patients with comorbility and pluripathology as an attempt to mitigate the effects of these situations. It will also be advisable to perform a social assessment after the admission of the patient in order to define the needs of support which may be required after discharge.

Conclusions: Advanced age, comorbidity, the development of nosocomial infections and social problems are factors that may contribute to the extension of hospital stay.

EA-77
DESCRIPTIVE ANALYSIS OF THE USE OF NUTRITIONAL SUPPLEMENTS AFTER DISCHARGE

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Objectives: Check the indication of nutritional supplements in hospitalized patients, and the indication of them at discharge.

Material and method: Cross-sectional study, conducted at the General Hospital "La Mancha Centro" (Alcázar de San Juan, Ciudad Real. Spain) during the second half of April 2012. The inclusion criterion was receiving oral or enteral nutrition in hospitalized patients. The case search was conducted through electronic prescription drug program in our hospital. We collected medical history, laboratory parameters, discharge diagnosis, destination on discharge and the indication of oral/enteral nutrition before and after admission. The degree of functional dependence was assessed using the Katz index. Patients were followed until hospital discharge. Analysis with PAW Statistics 18.

Results: We collected 18 cases, half male, mean age of 75.8 years (minimum 32 and maximum 93), and average stay of 19.8 days (minimum 3 and maximum 48). The Katz index was G in 9 cases (50%), A at 7, C and F in 1 patient. Before admission, 1 patient had a nasogastric tube (NGT) and 2 had PEG (percutaneous endoscopic gastrostomy). More than half of patients (61%) had cognitive impairment. 2 patients died during hospitalization. The admission diagnosis was infection in 12 patients (most commonly pneumonia and urinary tract infection). Before admission, 3 patients had enteral nutrition (corresponding to patients with NTG and PEG). During admission, oral supplements were prescribed in 10 cases, enteral nutrition in 7, and liquid-thickener only in 1. At

discharge, oral supplementary nutrition remained in 4 cases, and enteral in 4. (those who had before entering, and one patient who was placed NGS during hospitalization). The most commonly prescribed supplements during hospitalization were hyperproteic in 11 patients (61%) followed by standard nutrition in 3 (16.7%), 1 fiber, 1 diabetic and 1 renal protection nutrition.

Discussion: All patients who required NGT or PEG for feeding, carried enteral nutrition. During hospitalization, oral hyperproteic supplements were most commonly prescribed. In most cases the clinical reason was resolved before discharge, but in two patients with confirmed malnutrition by nutritional analytical parameters, could have been indicated prescribing it at discharge but was not done.

Conclusions: The indication for enteral nutrition is evident in patients requiring NGT/PEG. As for oral supplements, most often done based upon clinical reasons, not in blood biochemical parameters.

EA-78
NEW TOOLS FOR ASSESSMENT OF ELDERLY PATIENTS IN INAPPROPRIATE MEDICATIONS: INCOME CRITERIA BEERS?

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Objectives: Given the inversion of the population pyramid in our environment, the existence of elderly on several treatments is becoming more relevant. For this reason it is surprising that no consensus has been reached on the use of entirely satisfactory tools for the detection of inappropriate prescriptions. The main objective of our study was to assess the percentage of elderly patients with inappropriate drug prescriptions, according to different validated criteria (Beers, Stopp and Start).

Material and method: We performed a prospective study, selecting all patients over 65 admitted to our hospital Internal Medicine Area, in a period of 10 days, in order to assess how appropriate where the drug therapies prescribed on admission according to STOPP criteria/START and BEERS. Were also analyzed variables such as age, sex, comorbidity criteria and renal failure (NKF). SPSS 15.0 was used for statistical calculations.

Results: The sample consisted on 103 patients with a mean age of 77.8 years (65-95) with similar proportions of men and women (56.3% vs 43.7% H M). The criteria for inappropriate prescribing of Beers were in 46.2% of patients and STOPP criteria in 42.3%. Regarding the adequacy of drug prescriptions according to START criteria, there was an achievement of 41.7%. A percentage of 42.7% met criteria for comorbidity and 68% of ERC.

Discussion: There was a high percentage of patients with inappropriate drug prescriptions on admission according to the Beers criteria and STOPP. However, this figure of patients with adequate prescriptions was higher. The coexistence of CKD and comorbidity is relevant.

Conclusions: A high percentage of patients use inappropriate medicines on admission. No differences were appreciated on the percentages of inappropriate drugs prescription according to the Beers criteria and STOPP. There is a low rate of underprescription before admission, according to the criteria START. Usual medication checkups and appropriate therapeutic changes should be incorporated into our daily clinical practice.

EA-79
APPROPRIATENESS OF DRUG TREATMENT AT THE HOSPITAL DISCHARGE IN POLYPATHOLOGICAL PATIENTS

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Objectives: To analyze the appropriateness of drug treatment at the hospital discharge in a cohort of polypathological patients and interventions to improve.

Material and method: We identified all polypathological patients (as defined in the Integrated Health Care Process in Andalucía) admitted during the period of one year and five months (September 2010-February 2012) at a tertiary teaching center in southern Spain. We preformed an adequacy report base on an self -audit modified MAI, STOPP-START criteria, interventions default and pharmacist standard, which was sent to the responsible physician. Interventions were categorized in different groups: no indication, no effective drug, diagnosis/symptoms untreated, dose, duration, schedule times, patient instructions, contraindications, interactions, duplicity, cost-effectiveness and route of administration. We consider the report is accepted when all interventions were accepted, non-accepted when no intervention was accepted and partial accepted when some of them were accepted and others no. Data were analyzed and processed using the Excel 2005®.

Results: 192 polypathological patients were included. Average age 72 ± 8, 51% male. Mean number of diagnosis per patient was 8 ± 3, and prescriptions 12 ± 4. A total of 692 interventions were made: 80 interventions of " no indication", 2 "no effective medication", 117 "diagnosis/symptoms untreated", 40 "dose", 48 "duration", 49 "schedule", 13 "patient instructions", 23 "contraindications", 283 "interactions", 9 "duplicity", 23 "cost effectiveness" and 2 "route of administration". The acceptance rate of interventions was 44%: 21% accepted and 23% partial accepted.

Conclusions: The number of interventions made and the rate of acceptance was high. This supports the benefit of interventions made by different health professionals in the adequacy of drug treatment of polypathological patients.

EA-80
RELATED FACTORS WITH TREATMENT ADHERENCE IN A COHORT OF POLYPATHOLOGICAL PATIENTS FROM INTERNAL MEDICINE DEPARTMENT

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Objectives: To determine the treatment adherence in a polypathological patients (PPP) cohort. To identify factors related with treatment adherence.

Material and method: Unicentric transversal observational study. Inclusion criteria: PPP as defined in the Integrated Health Care Process in Andalucía, who were hospital discharge, outpatient clinics, or home hospitalization from internal medicine department, between October 2010-march 2012. Variables: -Treatment adherence according to Morisky questionnaire. Values are between 0-4. A good adherence is considered for 4 points. -Age and sex. -Number of drugs prescribed. -Pathologies: those that define PPP and another (cardiovascular/digestive/nephrourologic/neuropsychiatric/respiratory). -Degree of disability according to Barthel index. -Cognitive decline according to Pfeiffer questionnaire. -Needed of caregivers (Barthel index < 60 points or important cognitive decline). -Co morbidity degree according to Charlson index. -Social assessment according to Gijón scale. Statistical analysis: to determine association chi-squared, Fisher's exact or linear association tests were used depending on variable characteristics. We used SPSS 15.0.

Results: 263 patients were included. 50.4% male, age average: 76 years (range 27-98), number of drugs: 12 (range 4-25). 59.9% of patients have at least 3 categories for PPP and 59% have a good adherence. These variables presented statistically significant association with treatment adherence: Needed of caregivers. On those patients with high disability (BI < 60) that needed a caregiver, if they don't have it, 75% don't have a good treatment adherence vs 38% on those that have it. p = 0.047. Degree of disability. Those patients with a severe disability have a good adherence (64%). However those with a total disability have less percentage of adherence (56.6%). p = 0.008.

Conclusions: The treatment adherence in this kind of patients is very low, this results are similar to other publications about patients with chronic diseases. In the polypathological patients the treatment adherence is on relation to degree of disability and the needed of caregivers.

EA-81
DRUGS DOSAGE-RECOMMEND ADJUSTS IN POLYPATHOLOGICAL PATIENTS WITH KIDNEY FAILURE

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Objectives: To describe and quantify the incidence of kidney failure (KF) in polypathological patients (PP) and the adjusted-dose requirement of different drugs. To identify most frequent affected pharmacokinetics parameters in KF in PP patients.

Material and method: A prospective cohorts study was developed in a tertiary teaching center by internist and pharmaceutics physicians. PP were identified using the Spanish Andalusian Health Care Council criteria. All PP were recruited from hospital, as well as in outpatient clinics, and at-home hospitalization along one year and five months. Information about patient (prescription of drugs and KF) were obtained from digital Clinic History and from a web created in this study. Renal function was estimated in all PP recruited. In case of KF, all drugs were investigated to identify those which needed dosage-recommend adjusting in order to emit recommendations by pharmaceutics. Interventions were sent to responsible facultative. If the recommendations were accepted it was notified to pharmaceutics by mail. Dates were tabulated and processed by Excel 2005®.

Results: A total of 1,632 PP were included. Mean age was 76 years. 51% of them were men. 73 patients (38%) had KF. 32 (44%) of them required dose adjusting. Drugs adjusted to kidney function were: simvastatin (20 patients), metformin (in 8 patients), ramipril (5), enalapril (2), spironolactone (2), hydrochlorothiazide (2), bisoprolol (1), indapamida (1) and sitagliptin (1). Pharmaceutics recommendations were made in forty-two patients. Internist-physician feed-back was made in 43% of cases and recommendations were accepted in 61% of those cases.

Conclusions: KF was a frequent complication in PP (38%), and a high percentage of them required dose adjustment (44%). The main drugs implicated were simvastatin, metformin and ramipril. Internists collaboration rate was low (43%) but in the cases with proposal interventions, the acceptance rate was high (61%).

EA-82
ACUTE MANAGEMENT AND FOLLOW-UP OF ANGIODYSPLASIA

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Objectives: Angiodysplasias are a major cause of acute or recurrent gastrointestinal bleeding, mainly in elderly patients with associated comorbidity and with intake of antiplatelet drugs and anticoagulants. Bleeding angiodysplasia has become a common health care problem, requiring repeated hospital admissions, blood transfusions, tests, endoscopic or pharmacological treatment and its follow-up. Objective: to determine the frequency of gastrointestinal bleeding (acute and chronic) due to angiodysplasia in our hospital and to evaluate resource utilization in the acute and long term treatment.

Material and method: We performed a retrospective observational study of cases of angiodysplasia diagnosed between November 2006 to March 2012 in endoscopy service. We analyzed clinical and epidemiological data (sex, age, comorbidity, drugs), lesion characteristics (size and location); treatment (endoscopic, pharmacological or surgical), test, and follow-up (hospital admission, readmission, death).

Results: During the period of 54 months we have attended 314 patients, an average of 69 cases for year. The 63.7% were male and 36.3% women, with a mean age of 74 years (range 37-92), 84.7% were patients over 65 years old. The clinical presentation was 45% chronic anemia and 44% acute gastrointestinal bleeding, only 10.5% of cases were found incidentally. The 49% of patients had comorbidities and half of them were treated anticoagulants or antiplatelet drugs and 14.3% with NSAIDs. About size and location, 66% of cases had less than 5 lesions and lower than 1 cm, 17.5% of these were synchronous. 60.5% of patients had to be hospitalized, the most patients required treatment to improve the anemia, 42% received blood transfusions and 11% intravenous iron. 48.1% of cases were performed hemostatic endoscopic treatment, after this treatment only 13% of them rebleed. There were 7.6% of complications after the realization of the endoscopic treatment (3.5% abdominal pain, 2.2% acute pancreatitis, 1% pneumoperitoneum), 0.9% mortality in patients with significant comorbidity and very poor clinical condition. Patients who required hospital readmissions for clinical recurrence (new episode of anemia or gastrointestinal bleeding) were associated with patients older than 65 years old (26.9% vs 32.7% p = 0.021) with the presence of comorbidity (23.8% vs 42% p = 0.002), synchronous angiodysplasias (29.7% 32.8% p = 0.04) and the use of medications that affect haemostasis system (19.9% vs 45.6% p = 0.00). Half of patients

require long-term treatment (36% with supplementary oral iron, 5.6% intravenous iron infusions, and 6% with lanreotide).

Discussion: Angiodysplasias are becoming more prevalent especially in elderly patients, half of cases are associated with the use of antiplatelet or anticoagulant drugs and comorbidities, making it difficult hemostasis and increased morbidity. In most cases, the bleeding was controlled with endoscopic therapy, a safe and effective technique, but more than one session was necessary for control of rebleeding. Hospital readmissions were associated with older patients, comorbidity, use of drugs that alter hemostasis and synchronous angiodysplasia lesions. These higher risk patients would require stricter control. A third of these patients required long term treatment for anemia.

Conclusions: Angiodysplasias are very frequent. They consume a lot of resources both diagnostic and treatment. The endoscopic treatment is effective and safe, but is required more than one session. We should identify the patients who have more risk factors to rebleed to make an effective follow-up.

EA-83
ANNUAL HOSPITAL READMISSIONS AND MORTALITY IN PATIENTS OVER 65 YEARS ADMITTED TO AN INTERNAL MEDICINE UNIT

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Objectives: To analyze the clinical characteristics and readmission and 1-year-mortality rates of patients over 65 years attended in an Internal Medicine unit.

Material and method: Prospective observational study. We include all patients over 65 years attended in an internal medicine unit during 2010. We analyzed clinic- epidemiological variables, socio-functional status, polypharmacy, annual hospital readmissions and 1-year mortality. Data were analyzed using SPSS 18.0. Quantitative variables were expressed as mean ± standard deviation or range, and qualitative variables as percentages.

Results: A total of 250 patients were included. Of these, 57% were women. Mean age was 81 ± 6.9 years. The most prevalent diseases were: arrhythmia (34%), chronic renal failure (25%), heart failure (20%), dementia (17%), stroke (15%) and COPD (15%). Of all patients, 36% needed help in walking (16% bedridden), 26% in feeding, 15% had incontinence and 8% were institutionalized. Mean number of prescriptions per patient at admission was 6.6 ± 3.5 drugs. Of all patients, 48% consumed psychotropic drugs and 21% oral anticoagulants. Mean hospital stay was 9.5 ± 6.4 days. The most common diagnoses at discharge were heart failure (24.4%), COPD (18.8%) and pneumonia (8.8%). Mean number of prescriptions at discharge was 5.9 ± 3.6. One hundred eleven patients (44%) were readmitted. The median time to readmission was 120 days (range 3-339 days). Of the readmissions, 46% were for the same reason that the previous admission. The most common causes of readmission were respiratory diseases (22%) and heart failure (11%). The average hospital readmissions per year was 1.9 (range 1-8). Year mortality was 26% (66 patients). The median time to death was 184 days after discharge (range 1-313).

Discussion: Patients admitted to internal medicine areas are elderly, polypathological and with functional status impairment. Multiple drug therapy is common, with a high consumption of psychotropic drugs and oral anticoagulants. These drugs have been associated with frequent adverse reactions, which sometimes require hospitalization for their management. Comorbidity is common in the elderly and contributes to the complexity of this population. This problem is a risk factor for major adverse events such as functional decline, disability, dependency, poor quality-of-life, institutionalization, hospitalization and death, but is not the most important factor. We must take into account functional, mental and psychosocial aspects. It is expected that the rate of readmission and mortality in the elderly is high. It is therefore important to establish the characteristics of these patients to start assistance strategies aimed at this group of patients to allow better optimization of health resources.

Conclusions: 1. The most common causes of admission and readmission in elderly patients are heart and respiratory diseases. 2. Annual readmission rate in patients over 65 years is very high (44%). The most common cause of readmission is the same that led to the previous admission. 3. One in four patients dies in the first year of follow up.

EA-84
MY GRANDFATHER LIVES IN A NURSING HOME: HOW IS HE?

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Objectives: Aging and the increased survival of the population, are increasingly joining permanently in social institutions for care, or nursing home, either because of comorbidity or social status. The multiple types of homes and different levels of training of their staff, makes it interesting to know the characteristics of these patients, reasons for admission and other situations related to their detention.

Material and method: We studied 150 patients from social institutions, who were admitted for any reason at our hospital. Data were obtained from the database of Internal Medicine for the year 2010. Were studied based on their prior comorbidity, the reason for go to emergency (in several different categories) and definitive diagnosis. The presence of colonization was investigated by the control equipment nosocomial infections on admission.

Results: The group included 57.3% of men and 42, 7 females, mean age 81.6 years (79.35 and 84.64 respectively) and 79.3% of patients, had a moderate or high level of dependence, remaining independent for daily activities only 31 of the 150. The most common history were hypertension (71.3%), type 2 diabetes (39.3%) and 30% had dyslipidemia. As for heart disease, 8.7% had heart failure, 18% of ischemic heart disease, atrial fibrillation 19.3% and 22.7 any other type of heart disease different from previous. Of the 29 patients who had atrial fibrillation, 51% and the remainder anticoagulants, antiplatelet drugs. The lung was 39.3%, being the most frequent COPD (28%). 23.7% of these patients were prescribed home oxygen. The vascular neurological disorders (including dementia secondary) affected 31.3% of patients, and 38% had non-vascular neurological disease. 18% of patients had antecedent of renal failure but, at the time of admission, to 48.7% had estimation of glomerular filtration below 60%. 48% of total, had low hemoglobin (8.7% less than 9 g/dl). Other aspects to consider are the history of cancer (16% of them had a previous diagnosis of cancer) and the presence in the treatment of hypnotics, anxiolytics and antipsychotic medication (up to 58% of patients were taking these drugs, 56% of men and 63% of women). The reasons for go to emergency were: respiratory 30.7%, 31.3% neurological, digestive (15.3%), infection (4%), cardiac (2.7%) or nephrourological (1.3%). 6.7% were related to other different reasons (mainly trauma and relationship with cancer). As for the final diagnoses are similar to the complaint, except in the cardiac origin (14% vs 4% ultimate reason for consultation) and neurological (11.3% versus 31.3% end).

An important aspect is the presence at admission of nasal colonization by multiresistant pathogens. Only 13 of the 150 patients, 8.7%, had contamination and in 100% of the cases was Staphylococcus aureus. All were isolated and treated with nasal mupirocin to the nasal smear negativity or discharge.

Discussion: It is increasingly common to see in our units for elderly patients, multiple comorbilities, which also add another factor to consider as institutionalization. Our study highlights the high comorbidity in these patients. Another aspect to monitor is the presence of contamination by multiresistant microorganisms in all patients who come for social institutions because we must to treat them as a nosocomial infection disease, which is involved in evolution and costs.

Conclusions: The presence of infection control teams in hospitals nosocomial is an effective tool to eliminate such colonization and prevent the spread to other patients through isolation measures. This kind of patient have a multiple comorbililities and we take this into our mind when treating them.

EA-85
RISK FACTORS FOR ANNUAL READMISSION AND MORTALITY RATE IN PATIENTS OVER 65 YEARS

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Objectives: To identify risk factors associated with annual hospital readmissions and 1-year mortality in patients over 65 attended in an internal medicine unit.

Material and method: Prospective observational study. We include all patients over 65 years attended in an internal medicine unit during 2010. We analyze epidemiological variables, socio-functional status, clinical and analytical variables, multiple drug therapy, readmissions per year and 1-year mortality. Data were analyzed using SPSS 18.0. Quantitative variables were described as mean ± standard deviation and qualitative variables as percentages. Bivariate analysis of categorical variables was performed using chi-square test or Fisher's exact test. Quantitative variables were compared using t-student test. Statistical significance was defined as $p < 0.05$.

Results: A total of 250 patients over 65 years were admitted to an internal medicine unit. The follow up period was one year after hospital discharge. One hundred and eleven patients (44%) were readmitted. Of these, 46% were readmitted for the same reason that the previous admission. One-year mortality was 26% (66 patients). Patients with history of vertebral compression, diabetes mellitus, functional status impairment (dependency for ambulation and/or feed and/or bowel incontinence), home oxygen therapy and taking oral hypoglycemic agents were related to hospital readmission and/or death during the first year after hospital discharge ($p < 0.01$). Older age, lower hemoglobin levels, increased consumption of drugs both at admission and at discharge and a greater number of diagnoses at discharge were statistically related to the risk of hospital readmission and/or death (Table 1). Creatinine, glucose, albumin or sodium levels, and mean hospital stay were not associated with increased risk of readmission and/or death.

Discussion: Age, morbidity and functional disability have been described as risk factors for readmission. In our study, the presence of vertebral compression, diabetes mellitus, multiple drug therapy, and the number of diagnoses at discharge (related to the complexity of the patient), have also been linked to increased risk of readmission and/or one-year mortality. Defining the factors that affect the rate of hospital readmission in patients hospitalized in internal medicine units will enable us to identify those individuals at high risk. This will allow us to develop strategies to reduce the costs they generate.

Conclusions: 1. The readmission rate and annual mortality in patients over 65 years is very high. 2. Age, functional dependence, vertebral collapse, diabetes mellitus, multiple drug therapy, home oxygentherapy, taking oral hypoglycemic agents and number of diagnoses at discharge have been associated with increased risk for annual readmission and/or one-year mortality in this group of patients.

Table 1 (EA-85). Analysis of risk factors statistically associated with readmission and/or 1-year mortality

Variable (mean ± SD)	Readmission and/or death	No readmission or death	p
Age (years)	81.4 ± 6.9	79.5 ± 6.6	0.04
Drugs at admission	7.5 ± 3.6	5.4 ± 3.1	< 0.001
Hemoglobin (g/dL)	12.1 ± 2	12.8 ± 2.3	0.02
Diagnoses at discharge	6.6 ± 2.2	5.5 ± 1.9	< 0.001
Drugs at discharge	6.9 ± 3.4	5.4 ± 2.7	0.001

EA-86
CLINICAL VARIABILITY OF PATIENTS HOSPITALIZED ON TWO BEDS OF INTERNAL MEDICINE DEPARTMENT OF A SPECIALIZED HOSPITAL

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Objectives: We could ask if two different beds from IMD are occupied by similar patients and if it's also a clinic profile for all patients hospitalized on IMD.

Material and method: We selected two randomized beds (bed-AB; B bed-BB). Data from every patients admitted in both beds were collected during a year. Studied variables: age, sex, hospitalization department, origin, reason for admissions, diagnosis, develop and time spent on hospital. Descriptive prospective study was done from all those data.

Results: Patients selected: 30 AB/31 BB. Average age: 66 years old AB/72 BB. Sex: 53.3% women AB/45% women BB. Hospitalization department: IMD (86% BA/77% BB), reaming AB (10% neurology, cardiology, other) reaming BB (9.65% pulmonology, cardiology, other). Origin: Emergences services (90% AB/83.8% BB). Clinic consultation office (AB 3.3%/BB 6.45%), ICU (3.3% AB/3.23%BB). Medical Day Hospital (3.3% AB/3.23% BB). Reason for admission: dyspnea (23.3% AB/36.2% BB), fever (13.3% AB/16.1% BB), reaming AB (13.3% for feeling sick, neurological symptoms, other), reaming BB (sepsis 12.9%, other). Discharge diagnosis: sepsis (13.3% AB/25.8% BB), heart failure -HF- (13.3% AB/19.3% BB) respiratory infection (20% AB/16.1% BB). Develop: discharged (27% AB/30% BB), transferred to other center (1 AB/a BB), dead (2 AB/0 BB). Average time spent hospitalized: 9.9 AB/10.2 BB.

Discussion: Assisted patients profile on two beds of IDM is similar. Usually are multicomorbidity patients with similar sex distribution (50.7% men/49.23% women). Average age over 65 referred from Emergency department. Reason for admission: dyspnea (29.75%) fever (14.17%). Most frequent discharge diagnoses are sepsis (19.55%), respiratory infection (18.06%) and HF (16.32%) with an average time spent hospitalized 10 days. These data from beds in which patients from other services can be hospitalized, shows us patients profile hospitalized on IMD beds.

Conclusions: Day by day is more important global view that internal medicine professional is able to manage, of multicomorbidity and elderly patients. This patients usually become heart failure because respiratory infection which causes fever.

EA-87
CARDIOVASCULAR RISK FACTORS AND THERAPY IN ELDERLY PATIENTS

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Objectives: Arterial hypertension (AH) represents the most prevalent factor of cardiovascular (CV) risk, and it presents with important economical repercussion on pharmaceutical expenses, by itself as well as cause of its frequent links to another risk factors, leading to a rise of total therapy expenses, most of the former being long-term and chronic due to significant elderly population and increased life expectancy for our present society. Cause of these features and lifestyle, incidence of cardiovascular conditions is increasing. A rise in prevalence adds to all this because of improvement in therapies which avoid deadly events, leading to more years of life. Present recommendations from protocols and guidelines on hypertension include systolic blood pressures not higher than 140 mmHg and diastolic figures less than 90 mmHg for adults, unless no other risk factors recommending further reduction of those levels. At present, few articles assessing the eldest patients are available.

Material and method: Descriptive, observational and retrospective assessment was performed based on 100 randomized patients more than 80-year-old, admitted at Internal Medicine department of Zamora´s Hospital Virgen de la Concha through year 2011. Age, gender, rural or urban origin, presence of diagnosed AH or other CV risk factors (diabetes mellitus -DM-, heart, cerebrovascular and/or renal condition), nutritional status and lipid profile, therapies used and active ingredients according to pharmacological group, together with main cause of admission were assessed, as well as presence of therapy changes at discharge.

Results: 48 out of 100 patients analized were male gender, with a mean age of 88 years and higher number of patients from rural origin (64%). AH was present at diagnosis in 73% of them at discharge. Only 10% of patients did not show cardiovascular condition, and just 13% of patients assessed had not AH therapy prescribed. The pharmacological group most frequently used was diuretics (70% of all patients), in association with other drugs as commonest therapeutic option (59 out of 70 diuretic-treated patients), and furosemide as the most used of them. The next group according to frequency of use was ACE inhibitors (37% of patients, 97% in association). 27 individuals had therapy with three or more anti-AH drugs. 33% of patients needed antidiabetics, and metfomin was the most frequently used. In 22% of our series had lipid-lowering medication, and simvastatin was the most commonly used. Nutritional status assessment detected severe protein malnutrition only in five patients, none of them with previously diagnosed of renal failure. Regarding recommended serum levels of cholesterol and triglycerides, according to each condition, 11% and 12% respectively did not fulfil their endpoints. The condition which led to a higher number of admissions was decompensated heart failure (27 patients). 35% of patiens needed therapy enhancement in order to better control of CV risk factors.

Discussion: A significant rise in diagnoses of CV conditions and their linked risk factors have been seen in recent decades. Considering an incremental life expectancy as well, it determines the need of several drug combinations to treat, control and prevent future unwished events linked to conditions which present in our population. These combinations have been proved effective for prevention of new CV events or decompensation of current ones, so that quality-of-life and life expectancy can be improved. Pharmacological combinations show better adherence in multidrug-treated patients.

Conclusions: High prevalence of CV risk factors for the population assessed. Frequent combinations of anti-AH drugs in our elderly population. Significant amount of patients treated with three or more anti-AH agents, enhancement possibly needed because they often are not prescribed at maximum recommended dosage, and according to current conditions they should need several drugs. Classic anti-AH, lipid-lowering and antidiabetic agents are the most frequently used in our series.

EA-88
QUALITY OF LIFE (QOL), READMISSION AND PROGNOSIS IN DEMENTIA: THE ROLE OF ARTIFICIAL NUTRITION. A RETROSPECTIVE, OBSERVATIONAL, PARALLEL-GROUP STUDY

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Objectives: To evaluate in patients with dementia discharged from hospital with or without tube feeding: 1) rate of survival, 2) rate of readmission, 3) quality of life (QoL) as perceived by the caregiver.

Material and method: At the Internal Medicine and Critical Subacute Care ward of Parma University Hospital, Italy, 240 patients with dementia were consecutively enrolled within a period of six months. 44 patients were excluded because dead during the hospitalization. The remaining 196 (M 68, F 128, age 82 ± 8 years) underwent FAST (Functional Assessment Stages) and CDR (Clinical Dementia Ratio) score calculation and nutritional evaluation. Total enteral nutrition through PEG (percutaneous endoscopic gastrostomy) was administered to patients not able to eat orally for any reason and with a life expectancy greater than 30 days. After about twelve months from the hospital discharge, survival, re-hospitalization and quality of life through a telephonic interview with the caregiver were assessed.

Results: PEG was placed in 59 patients (PEG group), while 137 patients maintained oral nutrition (oral group). Average follow-up was 17 ± 6 months (range 8-26). 38 patients of the PEG group (67%) died (median of survival 7.5 months) vs 51 patients of the oral group (37%) ($p = 0.0001$ - Kaplan-Maier survival curve). However, since FAST and CDR scores were significantly worse in the PEG group than in oral group (FAST 7a vs 6b, $p < 0.0001$, CDR 3 vs 2, $p = 0.0004$), the survival within the two groups did not result statistically different after correcting the mortality rate for the disease severity. The two scores resulted strongly correlated one with another (rho = 0.862, $p < 0.0001$). Readmission rate was not different among the two groups (29% in both). In both groups the caregiver defined the QoL of the patients as good in 55%, acceptable in 25% and poor in 20%.

Discussion: Dementia is a disease with a high prevalence in the elderly population. The effects of total enteral nutrition with tube in patients with advanced dementia are controversial. The clinical trend, chronic and progressive, of the disease often makes it difficult to establish clinical course and prognosis. Our data seem to confirm the assumption that advanced dementia is a terminal disease like cancer. In fact, in our patients worse functional scores are associated to an increase in mortality even at 6 months.

Moreover, our data suggest that mortality is less influenced by nutrition type and more by dementia severity, that is the parameter that leads clinicians to start tube feeding. As a matter of fact, the survival curves of patients on enteral nutrition are worse (64% vs 37%), but, on the other hand, these patients show a significantly more advanced dementia score. However, readmission rate is not different in both groups.

Conclusions: In our population enteral nutrition is associated with a poor prognosis quoad vitam but this difference is not confirmed after correction for dementia severity. These data suggest that perhaps in clinical practice enteral nutrition through tube is undertaken too late during the disease course. Finally, there does not seem to be differences in readmission rate and quality of life as perceived by the caregiver.

EA-89
STUDY OF URINARY DIETETIC-METABOLIC LITHOGENIC RISK PROFILE IN BEDRIDDEN INPATIENTS ON ARTIFICIAL NUTRITION (TUBE FEEDING OR TOTAL PARENTERAL NUTRITION)

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Objectives: To assess the urinary factors of lithogenic risk in multiple-disease bedridden inpatients receiving either total parenteral nutrition or tube enteral feeding and to verify their role as nutritional markers.

Material and method: At the Internal Medicine and Critical Subacute Care ward of Parma University Hospital, Italy, 49 patients receiving artificial nutrition (20 on parenteral nutrition (TPN), 14 M, 6 F, average age 80 ± 6 years; 29 on tube feeding (TF), 16M, 13 F, average age 81 ± 9 years), completely bedridden and unable to eat orally, and 19 healthy controls (CTRL) (9 M, 10 F, average age 80 ± 5 years) were enrolled. All subjects undertook a urine 12-hour sample collection for the determination of the complete lithogenic risk profile (volume, pH, creatinine, Na, K, Cl, Ca, P, Mg, uric acid, ammonium, oxalate, sulphate, urea, citrate, supersaturation for calcium oxalate, uric acid and struvite).

Results: Patients receiving artificial nutrition, either on TPN or on TF, showed significantly lower values of many urinary lithogenic risk factors than controls, both promoters and inhibitors (for example Ca 43 ± 37 mg vs 95 ± 58 $p < 0.001$, sulphate 3.8 ± 2.8 mM vs 8.1 ± 3.7 $p < 0.001$, urea 6.8 ± 4.3 g vs 9 ± 3.5 $p = 0.05$, ammonium 7.6 ± 7 mEq vs 13.7 ± 7 $p = 0.002$, citrate 131 ± 93 mg vs 261 ± 114 $p < 0.001$, K 16 ± 9 mEq vs 23.3 ± 9.7 $p = 0.005$). Also creatininuria, corrected for creatininaemia, resulted significantly lower (297 ± 170 mg vs 527 ± 143 $p < 0.001$). These differences were confirmed even in the analysis of controls versus the subgroups parenteral nutrition and enteral nutrition. Supersaturation values resulted normal in all groups. The comparison of urinary profiles in parenteral nutrition and tube feeding did not show differences, except higher pH and lower phosphorus and ammonium and higher volume in the TF group than in the TPN group (pH 6.8 ± 0.9 vs 6.2 ± 0.8, $p = 0.01$; P 191 ± 160 vs 337 ± 306, $p = 0.035$, ammonium 5.4 ± 4 mEq vs 11 ± 9 $p = 0.006$, volume 731 ± 380 ml vs 521 ± 300, $p = 0.049$).

Discussion: In the last decades the number of old multiple-disease patients is rising. Malnutrition and immobilization are crucial challenges for clinicians because of the relevant fallout on a clinical, social, economical and health care point of view. It is still unclear what are the best scores and/or instrumental/laboratory tests to assess nutritional status in this setting of frail, multiple-disease elderly. In the adult subject the urinary factors of lithogenic risk are considered as an adequate dietetic-metabolic profile and there are data suggesting that both unbalanced diet and bed resting are risk factors for nephrolithiasis. Data in the elderly population, both hospitalized or community-living, are still lacking. Malnutrition and bed rest play a role of both cause and consequence of "elderly frailty". Our data confirm that adaptive responses of the elderly patients are substantially different from those of the young/adult subjects. For example, an increase of stone risk after bed rest is well documented in adults, although in particular conditions (space flights, healthy volunteers), while in our cohort of bedridden inpatients, stone risk is even lower than that of healthy age-matched elderly patients. Surprisingly comparison between TPN and TF does not show significant differences except lower urinary volume in TPN perhaps due to a well known fluid retention after iv fluid infusion.

Conclusions: These data suggest that elderly, frail, bedridden multiple-diagnosis patients receiving artificial nutrition do not show an elevation of their lithogenic risk, showing on the other hand low values of the urinary factors excretion. Urinary dietetic-metabolic parameters appear therefore very useful in the nutritional status assessment also in this particular type of severely malnourished patient.

EA-90
ANEMIA IN HOSPITALIZED PATIENTS OVER 85 YEARS AND ITS RELATION TO ORAL CHRONIC INTAKE OF ANTIPLATELETS AND/OR ANTICOAGULANTS

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Objectives: Considering the significant prevalence of anemia among hospitalized elderly as well as the chronic use of antiplatelet and/or oral anticoagulant drugs by this group we considered the hypothesis that those medications could bring about anemia in this special group.

Material and method: A retrospective study was carried out. A total of 234 discharge reports of patients over 85 years or more were randomly chosen from the Internal Medicine Service at Dr. Negrín Hospital during 2010. Parameters such as previous use of antiplatelet, anticoagulant drugs, past medical history, diagnoses at discharge and laboratory test were considered. Anemia was defined considering the OMS current criteria which defines it as a level of hemoglobin minor than 12 g/l for women and 13 g/l for men. A descriptive study of the sample was conducted and the association among the different parameters and anemia was analysed using the chi square test.

Results: A total of 188 patients older than 85 years were studied, 131 women and 57 men. Anemia was found in 127 (67%) patients, 83 women and 44 men. 25 patients were found to have anemia before admission and 23 of them continued presenting it during hospitalization, while anemia was a new finding in 104. 78 (44%) patients were taking aspirin while 23 (13%) clopidogrel, and 22 (12%) acenocumarol. Among those taking aspirin, 73% women and 76% men had anemia. From those taking clopidogrel, 53% women and 90% men had anemia. From those taking acenocumarol, 64% women and 100% men had anemia, but differences were not significant. Anemia was found to be a more frequent finding among those women taking aspirin than in those not taking it (73% over 39%), this difference was statistical significant but only with a marginal behavior ($p = 0.07$). A significant statistical association was found between anemia and serum creatinine higher than 1.2 mg/dL, urea higher than 50 mg/dL, total proteins levels lower than 6.5 g/dL or elevation of the sedimentation rate higher than 30 mm/h. Neither a significant association between anemia and

diabetes nor with respiratory infection, dementia, exitus or heart failure at discharge was found. Anemia was not registered as a discharge diagnose in 59% of cases. Ferritin was requested in 89 patients, among them 69 were found to have anemia, and ferritin was lower than 30 ng/mL in 5 patients, higher than 300 ng/mL in 24. Low vitamin B12 levels were found in 10 (out of 121 determinations) and 7 had anemia. Folic acid levels were low in 1 case out of 112 determinations. Erythropoietin, Coombs test, reticulocyte count and smear were determined in less than 5 patients.

Discussion: Elderly patients suffer from many diseases so that they have to take a wide range of medication. One third of them may have been taking any kind of antiplatelet or oral anticoagulant medication. Among antiplatelet, aspirin is the most used. Since low dosage of aspirin was discovered to be effective in the prevention of cardiovascular disease, its use has spread out. Gastrointestinal bleeding has been particularly related to the use of aspirin and less with other antiplatelets. However, there are few studies reporting the relation between anemia and anticoagulation/antiaggregation in the elderly. Despite of it, in clinical practice, we assume anemia is caused by these drugs. Results from the study seem to indicate that women taking aspirin might have a higher percentage of anemia (marginal significance) which is not described for other antiplatelets/anticoagulants. Other important comments coming out of the research was the high prevalence of anemia in hospitalized patients over 85 years (70%), the low percentage of nutritional anemia (10% versus 30% expected) and the infravaloration of anemia in the elderly as a medical problem.

Conclusions: We found trend towards significance between aspirin intake in hospitalized women over 85 years and anemia. This study is only a snapshot into the problem; better results could be expected if the sample is extended.

EA-91
COHORTS STUDY IN A CO-MANAGEMENT MODEL IN PATIENTS WITH HIP FRACTURE

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Objectives: To assess the clinical impact of a co-management model (Internal Medicine and Traumatology) in patients over 65 years old hospitalized with hip fracture (HF) in a third level hospital.

Material and method: Retrospective Cohorts study. Inclusion criteria: patients in a co-management model (Co-FRAC cohort) hospitalized between January 2008-August 2010, and patients hospitalized in the preceding years with hip fracture, between January 2005-August 2006 (HIST cohort), at a tertiary teaching center in southern Spain. The co-management model consisted in daily universal evaluation, from admission to discharge, prevention of medical complications, conciliation treatment, protocolized management of medical complications, co-management with trauma and anaesthesia teams, discharge summary and post-discharge monitoring in medical office if necessary. Analysis of demographic, clinical and surgical characteristics. Comparison of the incidence of different medical complications on both cohorts, as well as in-hospital mortality as well as 30 days after discharge.

Results: 582 patients were included, 396 in HIST cohort and 186 in Co-FRAC cohort (mean age 82.5 years (SD 7.2), 78% female). The average number of drugs taken was 3.7, a high percentage of patients took benzodiazepines (HIST 25.5%, Co-FRAC 27.3%). The most frequent pathologies were arterial hypertension (HIST 61.6%, Co-FRAC 58.9), diabetes mellitus (HIST 28.8%, Co-FRAC 32.1%) and cognitive decline (HIST 14.9%, Co-FRAC 19.5%). The main type of hip fracture was pertrochanteric (HIST 44.9%, Co-FRAC 49.2%). The most frequent complications were anemia (HIST 76.3%, Co-FRAC 90.3%, $p < 0.001$), constipation (HIST 78.8%, Co-FRAC 62.2%, $p < 0.001$) and acute renal failure (HIST 55.1%, Co-FRAC 65.3%, $p = 0.06$). Intrahospitalary mortality was 1.6% in Co-FRAC cohort and 3% in HIST (95%CI, $p = 0.32$), post-discharge mortality was 1.3% in Co-FRAC cohort and 2.6% in HIST (95%CI, $p = 0.32$).

Conclusions: The described co-management model, incorporating an internist in the health-care team may improve in-hospital and post-discharge mortality in elderly patients with hip fracture.

EA-92
ATRIAL FIBRILLATION IN VERY OLD PATIENTS

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Objectives: Atrial fibrillation (AF) is the arrhythmia most often observed in elderly patients and is an important cause of morbidity and mortality in this age group. Anticoagulation to reduce the thromboembolic risk is an essential part of the approach of this pathology. In this context, our aim is to assess the prevalence of AF and its treatment in very old patients admitted to our medicine ward.

Material and method: We analyzed the clinical files of very old patients (VOP - very old people - age ≥= life expectancy + 5 years for both sexes - 76 + 5 years for males and 82 + 5 years for females) admitted to our department from 01/01/2011 to 31/12/2011. The average of inward days and death rate was calculated. We analyzed the electrocardiograms performed at baseline and assessed outpatient medication.

Results: In 2011 we recorded 996 admissions, of which 189 (19%) were VOP. Of these, 26 (13.76%) died. The average hospitalization was found to be 15 days. We identified 61 cases (32%) with AF. No differences were found between genders. The majority (74%) had a CHADS2 score > 2. Only 1/10 of patients were treated with oral anticoagulants.

Conclusions: The prevalence of AF in our sample is relatively high compared to that described in other epidemiological studies. Despite the higher risk of stroke in elderly patients, thromboprophylaxis in AF is suboptimal. We admit that the new oral anticoagulants, because they do not require monitoring and have less drug interactions can potentially become very useful, particularly in the elderly.

EA-93
HOSPITAL STAY IN HIP FRACTURE UNITS

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Objectives: We observe the utility of units of hip fracture on fragile patient (UF3) to speed their hospitalization stay and reduced inpatient complications, facilitating a speedy recovery with a better prognostic.

Material and method: 239 patients total, over 65 years old, 203 with fractured proximal third of femur, from June 2010 until 30 April 2011. We have reviewed the ability to walk upon, the

amount of drugs and the relationship with femur fracture, the fracture type, hospital stay and resource use at discharge.

Results: 72% of women, average age of 85.26 years old. Previously 64.10% of them lives with family, even 23% alone. 46.81 were able to walk without help, against 11.7% weren't able to walk. Patients taking < 4 were 32.40%, and > 4 67.60%. Frequently drugs: psychotropic drugs 60%, 54% antihypertensive, 55% protective gastric, 44% PSA/ACO. Many of them related to risk of fracture of femur Days of surgical delay: Do not take AAP/ACO 2.31 days, operating at 48 hours 71%. Taking AAP 3.92 days, and taking ACO 2.72 days. Fractures were: 53.7% pertrochanteric 42.80% subcapital 4.46 subtrochanteric Average stay decreased to 12.65 days (were 19 days) only 7% were hospitalized over 20 days (in 2008 was 23%). Destination at discharge: 56.62% convalescence beds, 23.31% goes home with help, 15.53% residence for elderly.

Discussion: - Reducing average stay: mobilization of the patient should be do early and twice a day. – Utility of discharge resources: convalescence beds. – Reducing complications for intensive monitoring.

Conclusions: Improved functional and vital prognosis. Patient and family satisfaction higher.

EA-94
GERIATRIC CULTURE IN THE EMERGENCY AREA

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Objectives: Correct performance assessment of elderly patients in emergency services requires an awareness and specific training by professionals in this matter. A lack of identification by professionals make patients susceptible to the effects of poor quality care. The aim of our study was to evaluate what is the degree of awareness of the professionals in the Emergency Area (EA) of our center, regarding the assessment of geriatric patients.

Material and method: Transversal descriptive study. An anonymous and voluntary survey was performed and it was passed on to health professionals who worked mainly in the Emergency Area (EA). Data regarding gender and age, professional status, time of dedication in the EA per week, and years of experience were collected. The survey contained 24 questions with 4 possible answers (always, often, seldom, never) regarding the assessment of cognitive status, delirium, functional status, dysphagia, nutrition, treatment, urinary incontinence, ulcers, comfort and orders of vital support limitation (VSL) as well as communication between nurses and doctors. There was a question asking for an assessment of 1 to 10 according to the perception of quality given to patients and another open question inviting professionals to make proposals for improvement.

Results: 31 people answer the survey. 65% were women with a median age of 34.5 ± 9.7 years old. The 52% were nurses, 16% resident physicians and 20% physicians. Most of them worked 40 hours per week in the EA and the 32% had > 5years of experience. "Always or often" regarding the following items were reported: Cognitive status was assessed in the 64.5%. The 36.7% thought that delirium needs improving measures, the 32.3% asked for family collaboration and only the 9.7% talked with patient in order to improve orientation. Functional status was assessed by the 12.5% of the professionals. Dysphagia was asked by 38.7% and the number of meals per day was asked by the 9.7%. The 67.4% checked treatment with the patient or the caregiver orally. Status of urinary incontinence was assessed by the 41%. The 32.3% checked the presence of ulcers. Regarding VSL orders, the 80.4% was checked with other professionals, family or patients. The 68.2% thought that a good control of pain was achieved in the EA and the 29% asked for the quality of rest and sleep of the patient. Regarding doctor-nurse communication, the 41.9% thought it was good, the 25.8% thought it was coordinated and the 45.2% thought there were mistakes in the interpretation of medical orders. Professionals rated as 6.95 ± 1 the care given to the elderly. The 85% of the people answered that improving training and awareness measures among professionals would improve also the care given to the elderly. The multidisciplinary and collaborative work was proposed by the 45%.

Conclusions: The geriatric assessment of the elderly patients in the EA of our center can improve. More specific training measures regarding this issue as well as working strategies addressed to improve communication among professionals could benefit the quality of care given to old people in the EA.

EA-95
FEATURES OF HOSPITALIZED PLURIPATHOLOGIC DIABETIC PATIENTS

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Objectives: Nowadays, submitted patients with multiple chronic diseases represent a challenge in clinical and administration management. It's known, that the existence of health or other problems in the life of a patient can affect its life quality, and that its reduction can lead to an increasing number of hospital admissions. The aim of this study is to seek the features of hospitalized pluripathologic diabetic patients.

Material and method: This retrospective descriptive study analized the entire admissions of adult patients done in all the medical departments of the center during 10 years, between January 2000 and December 2009. Patients were divided into two groups: diabetic DM) and non-diabetic. Mean age, gender, number of chronic diseases, readmissions, mean hospital stay, mortality and CIRS score was analized.

Results: A total of 111,123 hospital admissions corresponding to 52,269 patients were registered, of which 10,187 were diabetic (27,502 hospital admissions). Comparing both groups: in DM 53 vs 56% male gender in non-diabetics, with a mean age of 75.1 ± 11.6 vs 67.7 ± 18.1 ($p = 0.001$) presented 4.1 ± 2 vs 2.4 ± 1.7 chronic diseases ($p = 0.01$), CIRS score of 12.4 ± 5.1 vs 9.3 ± 5 ($p = 0.001$), 2.68 ± 2.6 vs 1.99 ± 2.2 readmissions along with a mean hospital stay of 13.1 ± 29.1 vs 10.7 ± 15.2 days ($p = 0.001$) and a mortality rate of 5.7 vs 6% ($p > 0.05$). The most frequent causes of readmissions were heart failure, pneumonia, myocardial ischemia and chronic obstructive pulmonary disease.

Conclusions: Hospitalized pluripathologic diabetic patients can be associated with aging, a larger number of readmissions and mean hospital stay than in non-diabetic patients, and surprisingly due to non-related diabetic causes; notwithstanding mortality rates maintain equal.

EA-96
RETROSPECTIVE STUDY ON OBESITY IN A DISTRICT OF PORTUGAL

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Objectives: This study aims to characterize the obese population in the district of Leiria, Portugal, and its co-existing risk factors. Obesity worldwide has become a major health issue, particularly in

the northern hemisphere, but also in the developing countries. Moreover, the obesity issue in the general population is linked to diabetes, dyslipidemia or high blood pressure, and it has recently been defined as an independent risk factor for cardiovascular and cerebral vascular diseases. Created in 2007, our obesity consultation spans a universe consisting on a 250,000+ population. Even though criteria for admittance in our consultation explicit a body mass index (BMI) over 35 kg/m^2, we tend to continue follow-up on those people with BMI ranging 25-35 kg/m^2.

Material and method: In a universe consisting on a population of 250,000+, the obesity consultation attends all those who are over 18 years-old and with a BMI over 35 kg/m^2. All the people with lower BMI's have been excluded from this study.

Results: The authors present the data of our consultation, with a total of 2,018 consultations consisting of 493 patients. We have excluded those with a BMI under 35 kg/m^2. The variables studied include gender, age, related health issues, response to medical treatment or intragastric balloon. We also include the study of analytic variables such as glycosilated hemoglobin, cholesterol and triglycerides, alanine transaminase and creatinine.

Discussion: The obese population in this district of Portugal is not very different from the obese populations elsewhere. We have similar success rates but, unfortunately, also high waiver rates. In those who achieved a steady and long-lasting weight-loss, there was also success in reducing glycosilated hemoglobin levels, cholesterol and blood pressure levels, as well as reducing the incidence of cardiovascular and cerebral vascular events. Thus, our role in the struggle for a better and healthier lifestyle is a hard but also very rewarding one.

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EA-97
UTILITY OF CHARLSON COMORBIDITY INDEX IN PATIENTS HOSPITALIZED WITH PNEUMONIA

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Objectives: Co-morbid conditions contribute among many other factors to the risk of infection with antibiotic-resistant bacteria, and mostly, they contribute to the morbi/mortality of an increasingly old population. The Charlson Index is a validated comorbidity index used to evaluate mortality rate according to the individual comorbid conditions of each patient.

Material and method: the present study was a retrospective study o hospitalized patients with the diagnosis of Pneumonia, during the period of 2010-2011 in a secondary care Hospital. A protocol was elaborated based on demographic variables, etiologic agents and their sensitivity to antibiotics, presence of comorbid conditions and stratification with Charlson Index.

Results: Among 285 patients with CAP, 52.6% men, 47.4% women, with a mean age of 77.72 ± 12.77. The most frequent comorbid condition observed was hypertension 42.1%, diabetes 35.4%; 30.2% of patients were totally dependent of others; 22.1% had chronic obstructive pulmonary disease and 16.8% had history of stroke. The Maximum Score of Charlson Index was 13, and the minimum was 0, with a mean of 6,64 ± 2.22. There were 52 deaths during hospitalization, and in this group of patients the mean Charlson Index was 7.6 ± 1.73. Etiological diagnosis could only be obtained in 22% of patients, and among these patients, 48.4% had an antibiotic-resistant etiology. The correlation between an antibiotic-resistant infection and de Charlson Index Score using the chi square test was statistically significant (p = 0.01).

Discussion: In the present study it was found that death during hospitalization occurred more frequently in patients with a higher Charlson Index Score. The number of etiologic diagnosis was very reduced compared to other studies published, which can reflects a reduced number of diagnostic procedures such as cultures. The presence of resistant microorganisms however was considerable.

EA-98
CAUSES OF UNINTENTIONAL WEIGHT LOSS IN ELDERLY PATIENTS

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Objectives: Unintentional weight loss (UWL) is a frequent reason for consulting the internal medicine specialist, being a possible cancer diagnosis of utmost concern in most of the cases. The vast majority of studies carried out in this field do not differentiate between middle-aged population and elderly patients, although the underlying pathologies may differ substantially. Our aim was to provide a description of the causes of UWL in the geriatric population and to determine what clinical and analytical data can predict malignancy.

Material and method: 50 consecutive cases of geriatric patients with good baseline functional status and low comorbidity who consulted at our outpatient geriatric clinic with UWL between May 2010 and December 2011 were enrolled in this study. We reviewed our database to collect clinical data and complementary exams (blood tests and radiologic and endoscopic studies when indicated) performed to all the study subjects. Statistical analyses were performed by means of Fisher's exact test, Student's t test and logistic regression analysis using the software IBM SPSS Statistics version 20.

Results: The mean age of the cohort was 80.7 years (SD 5.0 years) and 46% of the subjects were female. Seven of them lived alone at the time of the first visit and 14 were looked after by a carer (family member or professional). 72% of the subjects met the definition of polypharmacy (4 or more different drugs per day). The median Barthel index was 100 (Range 40 to 100), the median Charlson Comorbidity Score (CCS) was 1 (range 0 to 7), and the mean score on the EuroQol Visual Analogue Scale was 52.8 (SD 15.3). 68% of the patients had hypertension, 64% had diabetes mellitus, 50% had dyslipidemia, 24% had chronic heart failure, 24% had some chronic pulmonary condition, 22% had gastrointestinal comorbidity, 12% had cerebrovascular disease and 10% had thyroid malfunction. In addition to weight loss, 72% of the patients complained of other symptoms ('leading symptom'), most frequently asthenia, anorexia, abdominal pain and gastrointestinal bleeding among others. A malignant disease was found in 30% of the cases (7 gastrointestinal tumors, 6 hematologic malignancies and 2 lung cancers) and a non-malignant digestive disorder in 20% of them. Other diagnoses included neuropsychiatric problems (8%), cardiopulmonary diseases (6%), endocrine (4%) and miscellaneous disorders (10%). In 22% of the cases no specific diagnosis could be found. In our cohort elevated triglyceride (TG) levels (p = 0.009) and the presence of symptoms other than weight loss (p = 0.039) were associated with malignancy. C-reactive

protein (CRP) and alkaline phosphatase (AF) levels were found to be higher in patients with a malignant disease, though without reaching statistical significance.

Discussion: In the current study only 30% of the patients turned out to have a malignancy as the cause of UWL. Other frequent diagnoses were non-malignant digestive diseases and neuropsychiatric problems. On the other hand, in one out of 4-5 cases no specific diagnosis could be established. Elevated CRP, AF and TG levels have all been related to different kinds of malignancies before. To our knowledge, though, ours is the first study to describe a relationship between the fact of reporting symptoms other than pure weight loss and increased probability of cancer. We consider that in the presence of 'leading symptoms' it is vital to pursue a diagnosis even in the absence of other data pointing to a possible malignant disease. The lack of exact quantification of weight loss and assessment of the medication taken by our patients (another important cause of UWL to be taken into consideration) may limit the conclusions drawn, and the low subject number have certainly affected the statistical power of the analysis.

Conclusions: Cancer was not the most frequent cause of UWL in our cohort of elderly patients. Predictive factors of malignancy were the existence of additional symptoms other than weight loss and elevated TG plasma levels. We also found higher mean CRP and FA levels in cancer patients but this difference did not reach statistical significance. In around a quarter of UWL cases no specific underlying process can be identified.

EA-99
ANALYZE AGE CAREGIVERS LIFE QUALITY IMPORTANCE ON PALLIATIVE CARE PROGRAM PATIENTS FROM A SSPA HOSPITAL

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Objectives: Family plays a very important role on Palliative Care Program sick care. Caregivers on terminally illness are faced with lot of responsibility; this can change their life quality, decrease physical and mental health of caregiver. Evaluate caregiver age impact on quality life decline, on terminal illness patient family.

Material and method: Patients included on the palliative care program and assisted by CPMSE during two months on 2012. Caregivers completed life quality test (including information satisfaction degree, care prepared, emotional support, fatigue, tiredness, stress, anxiety, disappointment, anorexia and social relation items) We used χ^2 test by SPSS statistical program. Correlations with Caregivers variables were realized (age) with each items of "quality life" test. Cross- sectional descriptive chart study during two months.

Results: Age equal or less than 54 years old/more than 54: fatigue 64.3%/35.7%, fear 65%/35%, sadness 59.1%/40.9%, anxiety 60.9%/39.1%, loss of hope 58.3%/41.7%, disappointment 65.2%/34.8%, dream dysfunction 58.3%/41.7%, partner dysfunction 75%/25%, distraction 58.6%/41.4%, stress 66,7%/33.3%.

Discussion: Terminal illness care clearly influence on life quality and welfare of caregivers. According to results on our hospital area, as younger caregivers, more life quality disturbs.

Conclusions: Palliative care need a comprehensive treatment of the patient and family. It is necessary to prevent diseases resulting from inadequate comprehensive care.

EA-100
ROFLUMILAST: POTENTIAL ROLE AS SHORT-TERM SYMPTOMATIC TREATMENT OF DYSPNOEA IN PALLIATIVE CARE OF TERMINALLY ILL PATIENTS

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Objectives: Our aim was to describe the use of roflumilast in 5 terminally ill patients having dyspnoea at rest and productive cough or bronchorrhea with the purpose of obtaining better dyspnoea relief.

Material and method: From January to December 2011, 5 patients (4 cancer and 1 non-cancer) with dyspnoea at rest and intense productive cough or frank bronchorrhea who were attended by a southern Spanish hospital at home unit were selected to initiate treatment with roflumilast. We describe the clinical features and effects of roflumilast on patients' symptoms.

Results: Mean age was 74.6 ± 13.22 years, ranging from 63 to 90 years old. 4 were male and 1 female. 1 was a current smoker, 3 former heavy smokers and 1 non smoker. All had severe dyspnoea at rest, in episodes (4) or continuous (1), which was treated with oral morphine in 4 cases. The main disease was a colorectal cancer with lung metastases in 2 cases, larynx cancer and epidermoid lung cancer and severe COPD (GOLD stage IV) with chronic bronchitis in other case, another one advanced heart failure with severe COPD and chronic kidney disease, and the last one stroke with recurrent respiratory infections. Two patients had type 2 diabetes mellitus, one with insulin and other with oral antihyperglycemic agents (gliquidone). 4 were in ECOG performance status (ECOG-PS) 4 and 1 in ECOG-PS 3 at the first home visit. Initial mean Palliative Performance Scale (PPS) was 50 ± 10. The mean time of duration of treatment with roflumilast was 14.2 ± 11.74 days (8 to 34 days). Two patients with cancer also received low dose oral glucocorticoids (dexametasone 1 mg) because of anorexia and fatigue. After starting oral roflumilast 500 mcg/day, dyspnoea and sputum production improved in two days among 4 patients and in three days in other patient. Thus, needs of nebulized bronchodilator beta-adrenergic or anticholinergic treatment decreased notably. In 2 patients, nebulized bronchodilators could be passed to metered-dose inhalers. Among diabetic patients, oral glucocorticoids could be avoided and their glycemic control remained stable. Regarding adverse effects, only one patient (the one with heart failure, COPD and chronic kidney disease) presented with mild self-limited diarrhea for four days. No significant appetite loss or emesis was evident after introducing roflumilast, although all patients had been prescribed with metoclopramide or domperidone. 3 patients (all cancer patients) needed palliative sedation and scopolamine in the last days of life after a quick decline and agony with refractory symptoms (dyspnoea 5, pain 3, delirium 4 patients).

Discussion: Roflumilast is an oral phosphodiesterase-4 inhibitor approved for advanced COPD with chronic bronchitis and exacerbations. It is anti-inflammatory but the main clinical effect is the mid to long term improvement of perceived quality of life. Although it is well tolerated, emesis, anorexia, psychiatric disturbances and particularly diarrhoea are frequent. Among disabled terminally ill patients, bed rest causes constipation, possibly explaining better tolerance among our cases. This drug allowed us to reduce glucocorticoid use, an important issue for diabetic patients who were aware of possible hyperglycaemic decompensation. Perhaps this acute effect should be considered and its role in palliative care be explored in clinical trials.

Conclusions: Roflumilast was effective as symptomatic treatment in five terminally ill patients with severe dyspnoea with abundant sputum production, acting in just a few days.

EA-101
FOLLOW-UP OF PATIENTS TREATED WITH NON INVASIVE MECHANICAL VENTILATION (NIMV) IN INTERNAL MEDICINE

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Objectives: NIMV has been shown to be effective in chronic and acute respiratory failure (RF). In the past, all the forms of mechanical ventilation were managed in intensive care unit (ICU). Anyway, the decrease and expensiveness of ICU beds and the population ageing and comorbidities spread it outside ICUs. The aim of the present study is to investigate inhospital mortality, survival at 3, 6 and 12 months and re-admission within 1 month among patients by NIMV in a ward of Internal Medicine.

Material and method: From 1/1/2009 to 11/15/2011 we delivered 148 NIMV treatments. Inhospital mortality, survival at 3-6-12 months from discharge and readmissions to hospital within one month were collected. Study population: 104 pts (mean age: 84.3 ys) treated by BPAP for hypercapnic RF due to exacerbation of COPD (69 pts eligible for follow-up at 3/6 mo, 33 at 12, 17 at 24 mo) and 44 pts (mean age: 74.5 ys) treated by CPAP for hypoxemic RF due to pneumonia (30%) and pulmonary edema (70%), (31 eligible for follow-up at 3/6 mo, 21 at 12 mo, 6 at 24 mo). All of them have at least 2 comorbidities.

Results: In BPAP group, 33.6% died in hospital, 58% pts survived at 3 mo, 52% at 6 mo, 53% at 12 mo.; 5/17 patients are still alive after 24 mo.; readmission within 1 mo. occurred in 20% (14/69) of cases. In CPAP group, 29.5% died in hospital, 63% survived at 3 mo, 67% at 6 mo., 73% at 12 mo and 3/6 at 24 mo; readmission within 1 mo. occurred in 19% (6/31) of cases.

Discussion: Follow-up of patients treated by NIV is not yet fully investigated. Previous follow-up studies cover only patients with hypercapnic ARF. 1-year mortality (47% BPAP-group) in our study is consistent with previous reports (ranging from 30.8-49%), despite of a higher mean age of patients. The prognosis is better among patients treated by CPAP, because of the different nature and better options of treatment of the causing disease. Cost-effectiveness and social equity are critical issues.

Conclusions: Nowadays, NIMV is widely used in Internal Medicine. Considered that a large proportion of do-not-intubate patients are treated in this setting, survival resulted quite prolonged and readmission rate is not very high in both the groups.

EA-102
EARLY MORTALITY IN HIP FRACTURE PATIENTS

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Objectives: Analyze causes of death and characteristics of patients who died within 30 days after suffering a hip fracture.

Material and method: We have reviewed the medical records of patients admitted to the Acute Geriatric Unit (AGU) at Terrassa Hospital between January 2006 and August 2010, and who died within 30 days after suffering a hip fracture. The data collected included age, sex, Charlson Index, Barthel Index at the admission date, history of cognitive impairment, fracture type, treatment type and cause of the death.

Results: During the reviewed period, a total of 485 patients with hip fracture were admitted. A total of 38 patients died (7.8%), thirteen of which failed to undergo surgery and 25 (5.1%) died within 30 days after surgery. A 52.6% were women and 47.4% were male. The average age is 88.1. Standard deviation (SD) ± 5.7 years (min: 76, max: 100) and the mean is 88.5 years. A 53% of the cases were intracapsular fractures and 47% of extracapsular fractures. The mean Charlson index was 4.2 ± 2.6. A 50% of patients had a baseline Barthel index > 75% and 18.4% had cognitive impairment with GDS-FAST score ≥ 5. The causes of death were: Cardiac Pathology: 16 (42%) (acute coronary syndrome: 10 cases. Sudden death: 2 cases. Heart failure, 4 cases). Respiratory disease: 10 (26.3%) of the patients (aspirative pneumonia: 4 cases. pneumonia: 3 cases, pulmonary tromboembolism (PT): 3 cases). Abdominal pathology: 8 (21%) patients (Gastrointestinal hemorrhage: 4 cases. Intestinal obstruction: 2 cases, Acute abdominal pain: 1 case. Intestinal ischemia, 1 case). Other causes: cerebrovascular disease, aortic dissection, fat embolism, multiple organ failure.

Conclusions: The most common cause of death during the 30 days after suffering a hip fracture was acute ischemic heart disease, followed by pneumonia, aspirative pneumonia and PET. It is also remarkable that one of every 5 deaths were related to abdominal pathology of diverse kinds, specially gastrointestinal bleeding.

EA-103
COMPLEX CHRONICALLY ILL PATIENTS. TWO YEARS HEALTH CARE OUTCOMES TO THE CARE PROGRAMME (COMPARTE PROGRAMME)

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Objectives: The primary objective was to improve morbidity and mortality. Secondary Objective: To stratify the risk of readmission. Homogenize the implementation of programs of care and effective pharmacological treatments. Establish a self-care education program. Improving drug reconciliation. Develop professional qualifications through the completion of a training program in their own virtual learning environment.

Material and method: Our hospital (San Juan de Dios de Aljarafe) and its catchment area (Aljarafe Health region) have operated a specific programme to provide integrated and longitudinal care. The programme aims to achieve the aforementioned objectives through the development 11 operational interventions: patient identification; integrated assessment and care; standardisation of procedures; rational use of medicines; self-care education; sectorisation of the inpatient and outpatient areas; transfer on discharge; linkage to electronic health records; follow-up in primary care; close observation to detect exacerbations; and development of professional skills. Currently, the programme is applied in the case of patients with heart failure, chronic obstructive pulmonary disease, multiple diseases, or cancer requiring palliative care.

Results: We have incorporated to 347 patients in the intervention group versus a 185 patients to control group unmasked during the periods from April to September of the three years prior to the start of the program (2006-2008) and the first two years of program's inception (2009 and 2010). The baseline demographic and clinical characteristics shown in Table 1. The results in morbidity and mortality are shown in Table 2.

Discussion: It is worth striving to promote team work as it can improve sometimes complex care by sharing the provision of care.

Conclusions: This model of continuous care to chronically ill patients is associated with less morbidity and lower mortality per year.

Table 1 (EA-103). Demographic and clinical characteristics of the patient in control and intervention group

	Control patients (n = 185)	COMPARTE patients (n = 347)	p value
Age--yr	78.7	78.3	ns
Sex (% female)	48.6	45.2	ns
COPD (%)	9.8	9.3	ns
Heart failure (%)	7.3	8.2	ns
Polypathological ((%)	82.9	82.5	sn
stay (days)	6,1	6,6	ns

Table 2 (EA-103). Healthcare outcomes of the patient in control and intervention group

	Control patients (n = 185)	COMPARTE patients (n = 347)	p-value
1 year readmission (%)	41.6	33.4	0.016
1 year mortality (%)	52.0	31.7	0.001

EA-104
CHRONIC PATIENTS: THERAPEUTIC GRADE BOND IN OUR HOSPITAL AREA

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Objectives: Getting to know the degree of adherence to treatment of chronic patients in our area.

Material and method: We performed a prospective observational study of patients attending our external Internal Medicine practices. They were selected randomly during a period of 3 months. They answered a questionnaire voluntarily and anonymously in order to determine their compliance to the prescribed treatment. The variables analyzed were sex, age, residence, family, form and method of administration of medication, adherence, monitoring visits, comorbidity and instruments considered to improve compliance.

Results: We obtained a sample of 129 patients, 58% men and 42% women with a mean age of 71. Only 6% of the sample was institutionalized. The 55% of the patients living at a private family home administered the medication by themselves, even if 91% of them lived with a relative. The most prevalent chronic diseases were hypertension, dyslipidemia and diabetes. 76% of patients were on several treatments. 61% of them (n = 60) had reached adherence to treatment, while only 45% (n = 14) of the patients which were exclusively on one treatment (p = NS) had. 51% of patients did not use reminder of medication. One of the most common methods was the labelling of daily doses on the medications' packaging. Only 57% of the population studied maintained good compliance. However, 84% of patients saw no need for any tools to improve adherence.

Discussion: In medical practice, part of treatment compliance is the responsibility of patients and failure becomes a real health problem increasing morbidity, mortality and health expenditure. We have found a high percentage of patients with poor compliance in our study. This result matches those obtained previously by other authors. Several studies observed a lower adherence to treatment in patients who were on several treatments, unlike the results of our work. We must integrate strategies to improve compliance and reduce complications and the costs of therapeutic failure.

Conclusions: There is a high percentage of patients with low adherence to treatment. No significant differences have been found in patients who meet criteria for polypharmacy.

EA-105
PROGRAM SHARED CARE. BENEFITS AND AREAS FOR IMPROVEMENT IN ONCOLOGY PALLIATIVE PATIENTS

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Objectives: 1. To clarify the reason why palliative oncological patients are admitted to our Department of Internal Medicine. 2. To determine if patients are admitted directly to hospital stay ward by telephone contact between Primary Care Services and the internist, or do so through the Emergency Department. 3. Analyze what proportion of these patients return for consultation with the Emergency Service or are readmitted within one month of discharge.

Material and method: We carried out a prospective study of patients included in the "Plan Shares" as palliative cancer for 8 months. We analyzed the sex, age, type of admission (emergency, scheduled admission), cause of admission, readmission and emergency department visits in the month following discharge, appointments at the day-hospital, death in hospital.

Results: The "Plan Shares" assumes 56 oncology patients who were properly included, 34 men (74 ± 11 years) and 22 women (76 ± 12 years). 80% of them were admitted through the Emergency Service while the rest 20% were directly to the ward. Causes of admission were manifold, being respiratory and infectious processes and dysphagia the most frequent. The day hospital was used by 2% only. 21% of the patients attended the Emergency Service within one month of discharge, and 25% of patients were admitted. 55% died in hospital.

Discussion: The aim of including these patients in the shared care program is to provide a more fluid communication between the Primary Care Services and the Internal Medicine Department in order to improve their quality of life. These will be achieved by improving symptom control and making the admission on hospital stay ward easier avoiding the Emergency Service. The most frequent cause of admission is dyspnea, which may justify a large majority of patients being admitted through the Emergency Service with no time to schedule the direct admission to ward. We should also promote the use of the day-hospital amongst these patients. As a quality parameter there is good symptomatic control of pain.

Conclusions: 1. The most frequent causes of admission amongst these patients are dyspnea, dysphagia and infectious processes. 2. The majority of them are admitted through the Emergency Department. 3. 25% of the patients are readmitted.

EA-106
DESCRIPTION OF PATIENTS WITH ADVANCED CHRONIC ORGANIC FAILURE KILLED IN A SERVICE OF INTERNAL MEDICINE

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Objectives: Describe the last year of life of patients who died with advanced chronic organ failure (IOCA in Spanish) admitted in a Internal Medicine service.

Material and method: Retrospective study. Review of medical records of patients who died in the internal medicine service from 1.

March 2011 to 28 February 2012. Were selected and studied patients whose cause of death was chronic advanced organic failure (IOCA: respiratory, hepatology, heart disease, neuropathy, nephropathy).

Results: 114 dead. Of which 42 (36.84%) died of an IOCA. Mean age 74.2 years (SD 12.8). 11 women (mean age 82.0. SD 8.0), and men 31 (mean age 71.5 years, SD 13.1). 36 (85.71%) were more than one chronic disease, with the following distribution. (Table) The average stay was 14, 8 days. 9 patients died without previous decompensation in the year before the patient died. The remaining patients (33 (78.6%)) were admitted 2.76 times (SD 1.82) and were taken to hospital in 3.32 times (SD 2.92). 32 patients (76.2%) were admitted from the emergency service, 5 (11.9%) from the ICU, 3 (7.14%) from Day Hospital program or chronic illness, 2 (4.76%) from other hospital services. Subgroup of patients admitted from the emergency service, they calculated the Profund Index (IP) to 26 (81.25%) One year before the patient died, his IP was 6.67 (2.29 SD), with mortality estimated at year: 21.5%. 5 (19.23%) patients had an IP > 10 (estimated mortality of 45%).

Discussion: Given in progressive aging of the population and the high prevalence of patients with IOCA is important to use indices to determine the probability of death. In our case, the index profound predicted a low probability of death (21.5%).

Conclusions: Of all patients who died in the internal medicine service, the 36.84% were by IOCA. The most prevalent were: cardiovascular and respiratory systems. During the last year of their life these patients visited the emergency services 3.32 times and admitted (through emergency) 2.76 times because of decompensation associated with their IOCA The IP calculated for these patients considered (one year before) a possibility of death of 21.5%.

Table 1 (EA-106). Distribution

Cardiovascular	33
Renal - Rheumatology	13
Respiratory	20
Digestive	15
Neurologic	9
Mellirtus Diabetes	14
Hematologic- Oncologic	4

EA-107
DESCRIPTION OF PATIENTS WHO DIED DURING A YEAR IN THE INTERNAL MEDICINE SERVICE IN A REGIONAL HOSPITAL

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Objectives: Describe the demographic characteristics of patients who died in the internal medicine service in one year.

Material and method: Retrospective study, by reviewing the medical records of patients who died in the internal medicine service from March 1, 2011 until February 28, 2012. Statistical analysis was performed with the Access program.

Results: 114 deaths. 37 women, 77 men. Average age: 66.9 (13, SD). Average age of women 69.6 (SD 16.4) men 69.7 (SD 11.7). Of which 66 were multiple diseases (57.89%), with the following pattern (see Table). 36 patients had cancer. The diseases most prevalent among patients who died (in order of frequency) were cardiovascular (83.33%), hematologic-oncologic (54.54%) and respiratory (48.48%). There were 31 (46.97%) patients with diabetes.

Conclusions: Of all patients who die in an internal medicine ward, 57.9% of patients are multiple diseases, affecting mainly the cardiovascular system, Given that 31 (46.9%) patients were diabetic. Most patients who died in an internal medicine service are older patients with comorbidity.

Table 1 (EA-107). Distribution

Cardiovascular	54
Nephropathy	17
Respiratory	32
Digestive	20
Neurologic	12
Dibetes	31
Hmeatology- Oncology	36

EA-108
IDENTIFICATION OF ADVERSE DRUG REACTIONS IN ELDERLY PATIENTS WHO ARRIVE TO AN EMERGENCY DEPARTMENT

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Objectives: 1) To describe the characteristics of patients who developed ADR. 2) To describe the proportion of ADR produced by each therapeutic class of drugs. 3) To describe which are the most common ADR, developed by elderly people, who come up to an Emergency Department.

Material and method: This is a prospective observational study, in which are included consecutively those patients older than 75, who come to our Emergency Department, with at least a one ADR identified in the current ER episode (at investigator judgment), independently of the reason for consultation. Previously, a written informed consent was obtained from all patients. There were no exclusion criteria apart from the negative to offer consent, in order to capture as much as the real world ADRs possible. Data are collected directly from medical records and included in an electronic case report data. The data were analyzed using SPSS 10.0 program.

Results: Until April 2012, 61 patients were collected: 45 women (74%) and 16 men (26%). 12% of patients were institutionalized and 75% was independent for basic activities of daily living. Patients' personal medical records: as recorded, only in 9 patients (15%) any previous ARD had been described; 90% had at least a cardiovascular risk factor; being hypertension the most prevalent (75%); 51% had personal history of heart disease, 30% neurological, 28% metabolic, and 26% renal disease. Patients take an average number of 7 drugs to treat all these conditions. The drugs most frequently implicated in the observed episode of ADR were antihypertensive drugs, mostly diuretics, and anticoagulants (24% each of them), followed by heterogeneous group (to be noted a significant proportion of

opioids,18%). The symptoms most frequently associated with these ADR were of gastrointestinal (24%), nephrological (18%) and haematological (17%). The main factors associated with ADRs, according to the investigator's criteria, were the patient's idiosyncrasies (30%), polypharmacy (21%) and their own co morbidity (20%).

Discussion: There is a high incidence of adverse drug reactions (ADR) in elderly patients, reflected in various studies in recent years. This is due, in part, to greater fragility of this population, but also to the wide range of treatments that they are receiving because of their co morbidity. This work is a descriptive analysis of a subset of patients yet included in a study ongoing in our Emergency Department. It includes all the cases collected between December 2011 and April 2012.

Conclusions: Elderly patients show an important polypharmacy and co-morbidity that, according to investigator´s criteria, are the most important factors associated with the ADRs observed. Consistently with previous studies, we found that the most frequent therapeutic groups involved in these adverse drug reactions were anticoagulants and antihypertensive drugs, and in third place analgesics (especially opioids). Gastrointestinal symptoms were the most prevalent associated with ADRs.

EA-109
CLINICAL MANAGEMENT OF MULTIPLE CHRONIC DISEASE PATIENT. CASE MANAGEMENT EXPERIENCE

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Objectives: To evaluate the implementation of a disease management programme in patients with multiple chronic disease and several hospital admissions.

Material and method: Patients: we selected patients with 2 or more chronic diseases and 2 or more entries in the Internal Medicine Department between December of 2010 and April of 2012 (16 months). The patients were included in an outpatient programme led by a nurse and a doctor (1/2 journey). The care model is the 'case management' with a nursing and physician consultation. We set individual targets focused on health education: information about diseases, health habits, adherence to treatment, early detection of symptoms. Patients have a telephone contact for inquiries, and arrange prior visit in case of early detection of symptoms of decompensation or exacerbations.

Results: We included 83 patients (64 men) with an age of 77.0 ± 7.1 years. The average of number of diagnosis is 8.4 ± 3.1, number of drugs 10.3 ± 3.3, Barthel index 86.1 ± 18.3, Charlson index 4.52 ± 1.97. 48 of them have a low cultural level and 34 medium. 21 patients have died. Patients were followed an average of 10.4 months. The table presents the outcomes of care attention (columns) of the year prior to admission, follow-up period, and the estimated data at 1 year of follow-up, compared with the year prior to admission in the programme (*).

Discussion: Patients included in the program have a little dependence and high comorbidity profile, reflected by Charlson index and the observed mortality in the sixteen months period. Health education, early detection of symptoms and early care response reduce significantly emergency room visits, income and hospital stays. 38 entries were made as scheduled admissions. The personalized attention through 'management case' provides answers to the needs of patients, and reduces the use of health care resources.

Conclusions: A programme focusing on 'case management' with a proactive care of patients with multiple chronic diseases and several hospital admissions, based on health education and quick response to health needs of patients reduces the needs for emergency services income and the hospital stay.

EA-110
POLYPHARMACY IN ELDERLY PATIENTS: A PREVALENCE STUDY

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Objectives: Making a prevalence study of polypharmacy and getting trends in drug consumption in a local hospital.

Material and method: Descriptive statistical study of a sample of patients admitted to a local hospital. Data analysis with Microsoft Excel and SPSS statistical software.

Results: 34 patients admitted to Internal Medicine and its units were studied. Only chronic treatments were considered, so analgesics, short course corticosteroids, chemotherapy or immunosuppressive were not included. The main age of patients was 80.88 years. 52.94% were male and 47.06% were women. The average number of medications taken was 5.94. A positive correlation between age and number of medications taken was observed, but it was not significant (p = 0.307). 64% of patients consumed diuretics. Other drugs commonly consumed were inhibitors of proton pump (58.82%) and blockers of renin-angiotensin system (50%). Of the latter, 52.94% consumed an angiotensin receptor antagonist and 47.06% used and inhibitor of angiotensin converting enzyme. 35.29% of patients who consumed blockers of renin-angiotensin system, used a combination. Anxiolytics were also frequently consumed. On the other hand, less frequently used drugs were digoxin (5.88%), levothyroxine (8.82%), oral iron (11.76%) and calcium antagonists (14.70%).

Discussion: Age often determines a deterioration in health status and an increase in the number of diseases or pathological conditions. This implies a higher consumption of medicines in order to control, resolve or alleviate these situations. It is, therefore, very common that older patients use several drugs. The data analysis shows that most patients studied are polymedicated. Polypharmacy involves obvious problems, such as the increased risk of adverse effects or interactions. Furthermore, there are aged-related changes in

Table 1 (EA-109). Results

	Year prior to admission to the programme	Programme period. Average 10.4 months follow-up	ata estimated to 1 year D follow-up
Emergency room (ER) visits	334	77	89 (-73.4%)*
Admissions from ER	185	39	45 (-75.7%)*
Hospital admissions	209	77	89 (-57.5%)*
Days of hospital stay	2761	968	1117 (-59.5%)*
Average stay	13.2	12.6	-0.6

absorption, distribution, metabolism and excretion of substances, which may increase, in some cases, the accumulation of certain active molecules.

Conclusions: To minimize these problems, medical prescription should be optimized. For this, we should avoid certain medications that may be inappropriate for elderly patients or ineffective substances. We should also use combinations to facilitate compliance and adjust doses correctly.

EA-111
CLASSROOM FOR CAREGIVERS OF DEPENDENT PEOPLE IN THE HOSPITAL INTERNAL MEDICINE UNIT: LEARNING TO CARE, LEARNING TO CARE YOURSELF

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Objectives: To develop the patient's involvement in his self-care to the extent it could be carried out. To provide a caregiver with the coping strategies based on the information on the disease process as well as its possible relapse. To involve the other members of the family in the assistance in the consolidation of information and care of patients. To identify the caregivers at risk of the "caregiver syndrome". To encourage a caregiver to take necessary decisions without feeling guilty. To decrease the number of readmissions of these patients. To develop a caregiver's acceptance of the limitations that progressively will be presented in his patient.

Material and method: The recruitment of the patients and the caregivers directly through the Case Management. The recruitment of the patients and the caregivers who are not the objects of the Case Management but are subjected to the intervention of the assigned nurse. The information about patients provide by the Supervisors. The reports of the assigned Nurses on their patients. Ask another caregivers of different patients for attending these classes. Ask different family members help in patient care.

Results: The classes were conducted from August, 2010 till May, 2012. There were totally 32 sessions with 256 participants: 222 women (86.7%) and 34 men (13.3%) among them. The subjects discussed were: practices and health education, prescription medication, diet, medical treatment knowledge and understanding of the disease process of the patient to support the decisions taken in the return to home. The patients whose caregivers attended the training classes were readmitted less frequently.

Discussion: Insecurity and fears crop up in the family on the day of the patient's discharge from the hospital and his return home, especially if it hasn't been decided who will assume the role of the caregiver or this duty has been imposed on one of the women of the family without asking her. Generally the wives take care of their mothers- or fathers-in-law, rather than the husbands looking after their own parents. It shows once again the issue of gender in the caregiver activity.

Conclusions: Initial results encourage us to continue with the conviction to enrich specific knowledge about patient care and achieve a significant improvement in the wellbeing of carers. After each session information and tools based on the knowledge acquired is provided. This is perhaps achieving the realization of a slogan: *Care for the caregiver.*

EA-112
PLURIPATHOLOGICAL PATIENTS ATTENDED IN AN OUTPATIENT SETTING

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Objectives: To describe the demographic and clinical features of pluripathological patients visiting a specific outpatient surgery in a General Internal Medicine Service.

Material and method: Data from patients referred from Primary Care or Short Stay Unit (SSU) during 18 months were recorded. Specific variables for this kind of patients were evaluated, such as the PROFUND index. Numerical variables are expressed by means ± SD (range) and compared using Spearson's correlation coefficient. Categorical variables are expressed in absolute numbers (percentage) and compared by means of Chi-square test or U-Mann-Whitney test were applicable.

Results: A total of 200 records were analysed, finding 60 cases of pluripathological patients. Among them, 27 (45%) were women. Mean age was 76.4 ± 8.3 years. Patients were referred most frequently (29; 48.3% and 24; 40% respectively) from Primary Care (telematic consultation followed by physical visit) and from the SSU. Patients fulfilled 2.45 ± 1.00 multimorbidity categories, being cardiopathy (50; 83.3%) the most prevalent. The cohort was highly polymedicated with 9.71 ± 4.07 drugs/day. Mean PROFUND Index was 4.98+/-5.14. Mean Barthel's Index score was 77.62+/-20.02. 52 (86.7%) had either no studies or only basic studies. Cardiovascular risk factor was relatively high among the cohort (SCORE > 4% in 26.8%). 13 patients (26.6%) needed some kind of treatment in the surgery center. Only 5 patients died during follow up. At least in 31 cases (51.7%) a hospital admission was avoided by managing the patient in this unit. Factors associated with not avoiding admission during follow-up were Hb levels (p = 0.019), PROFUND index value (p = 0.016) and the number of fulfilled pluripathology criteria (p = 0.03). Treatment in the surgery center was not associated with admission requiral (p = 0.092).

Discussion: Complex, pluripathological patients referred both via tertiary Hospital Contact or Primary Care can be safely managed in an expanded outpatient setting. The small number of deceased patients makes it difficult to interpret this management impact on global outcome.

Conclusions: Elderly, pluripathological patients can be attended in an outpatient setting. This measure helps avoiding hospital admissions. More data and finer-tuned tools are required to accurately identify patients at high risk of needing hospital care.

EA-114
ACUTE FEVER IN GERIATRIC PATIENTS: INFECTIOUS AND NONINFECTIOUS ETIOLOGY IN ELDERLY INPATIENTS

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Objectives: Our goal was to identify leading causes of fever in the elderly inpatients and correlate with underlying diseases and mortality.

Material and method: Elderly patients who were hospitalized for acute fever were included. Acute fever was defined as presentation within the first week of fever above 37.3 ºC.

Results: 94 patients were included (48 males and 46 females). Mean age was 77.44 years, with median 76 years. The cause of

fever was an infectious disease in 88.30%, noninfectious disease in 8.51% and unknown in 3.19% of the patients. The most common infectious etiologies were respiratory tract infections (n = 56), urinary tract infections (n = 16), and skin/soft tissue infections (n = 4). The main noninfectious causes of fever were hematological diseases (n = 4), solid tumors (n = 2), rheumatic diseases (n = 1). An unknown cause of fever was present in three patients. We also evaluate underlying diseases, analysis of the symptoms accompanying fever and mortality.

Discussion: Geriatric patients had more infectious causes of fever while noninfectious causes were responsible from fever in a few proportion with underlying diseases. In those patients with no underlying predisposing conditions except for age, an infectious etiology is to be sought. The evaluation must be prompt, and the treatment should begin as early as possible.

Conclusions: Fever is an important finding of infections and it may also be a sign of noninfectious etiology. Aging causes the increased susceptibility to infection. It is important to acknowledge that the malfunction of the cardiovascular, respiratory, and renal systems causes an immunocompromised state. This contributes for many infectious and noninfectious diseases, increasing morbidity and mortality in geriatric patients.

EA-115
REDUCTION OF COMPLICATIONS IN HIP FRACTURE

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Objectives: Observe the utility of units of hip fracture on fragile patients (UF3) to speed up their hospitalization and reduced inpatient complication, facilitating speedy recovery with better prognostic.

Material and method: 239 patients total, over 65 years old, 203 with fractured proximal third of femur, from June 2010 until 30 April 2011. We have reviewed the ability to walk upon, the amount of drugs and the relationship with femur fracture, the fracture type, hospital stay and resource use at discharge.

Results: 72% of women, average age of 85.26 years old. Previously 64.10% of them lives with family, even 23% alone. 46.81 were able to walk without help, against 11.7% weren't able to walk. Patients taking < 4 were 32.40%, and > 4 67.60%. Frequently drugs: psychotropic drugs 60%, 54% antihypertensive, 55% protective gastric, 44% PSA/ACO. Many of them related to risk of fracture of femur Days of surgical delay: Do not take AAP/ACO 2.31 days, operating at 48 hours 71%. Taking AAP 3.92 days, and taking ACO 2.72 days. Fractures were: 53.7% pertrochanteric 42.80% subcapital 4.46 subtrochanteric More frequent complications: Urinary tract infection (19.4%) Delirium (7%) Readmissions within 30 days (10%). In-hospital mortality (4.90) and month (7.80). We observed increased transfusions (Hb < 10) with increased intraoperative hemodynamic instability and the number of transfusions due to reduction in surgical delay. Average stay decreased to 12.65 days (were 19 days) only 7% were hospitalized over 20 days (in 2008 was 23%).

Discussion: Reducing complications for intensive monitoring: improved functional and vital prognosis. Reducing surgical delay is related to increased intraoperative hemodynamic instability, especially when hemoglobin is inferior than 10.

Conclusions: Prepare risk patients before surgery. Improved functional and vital prognosis. Patient and family satisfaction is higher.

Table (EA-115). Complications

Urinary tract infection	19.4%
Delirium	7%
Readmissions within 30 days	10%
In-hospital mortality	4.90%
Month mortality	7.80%

EA-116
SEPSIS MORTALITY PREDICTORS IN PATIENTS FROM AN INTERNAL MEDICINE UNIT

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Objectives: The value of severity scores in critically ill patients admitted to an Intensive Care Unit has proved useful in assessing prognosis, but it is unclear if these scores can be also used in elderly, comorbid patients, more frequently managed in Internal Medicine Units. The aim of this study is to analyze the prognostic value of these scores in these patients, comparing it with that of other comorbidity factors and physiological parameters.

Material and method: We performed a retrospective, observational study, including 188 septic patients admitted to the Internal Medicine Unit of the Hospital Universitario de Canarias. We assessed severity according to the Consensus Criteria SCCM/ACCP 1991 and general and sepsis severity scores (APACHE-II, SOFA). In addition, we also recorded the Charlson Comorbidity Score. Physiologic parameters and comorbidity factors related to these scores were also analyzed, including nutritional status (assessed by subjective evaluation, SNS), and the presence of dyslipidemia. We also recorded if patients were institutionalized and if the infection was health care associated or not. We analyzed mortality and compared the prognostic value of each of the variables by logistic regression analysis, including those variables which showed prognostic value in the univariate analyses.

Results: Mean age was 68.1 ± 16.2 years. The male-female ratio was 1:1.1. The most frequent focus was respiratory (58%), followed by urinary (14.9%) and cutaneous (12.8%). Other sites were abdominal (6.4%) and catheter infection (3.2%). All patients were treated with empirical antibiotics according to focus of infection. Thirty-one of them died (16.5%). The following variables were significantly different among survivors and dead: age, sex, blood pressure, kalemia, hematocrit, temperature, respiratory rate, arterial pH, Glasgow Coma Scale (GCS), APACHE II score, subjective nutritional evaluation and severity as determined by Sepsis Consensus Criteria. We also found a significant relation among mortality and dementia, hemiplegia, previous heart stroke, acute renal disease and previous institutionalization, but not with SOFA score and Charlson Comorbidity Score. We found, by logistic regression analysis, that all GCS (χ^2 = 78.33), APACHE II (X2 = 23.54), previous institutionalization (χ^2 = 12.14; p < 0.001 for all three), previous acute heart event (χ^2 = 6.39; p = 0.011) and hematocrit (χ^2 = 7.03; p = 0.008), in this order, showed independent significant relationship with mortality. If SNS (performed to a shorter number of patients) is also included, GCS enters in the first place, but SNS (χ^2 = 14.7; p < 0.001) is the second parameter related with mortality, displacing APACHE II.

Discussion: We found that SNS, hematocrit, and previous heart event are significant associated to increased mortality. In addition, patients who were living in an institution also showed increased mortality. SOFA and Charlson comorbidity Score did not predict mortality in our patients, in contrast with APACHE II. It is known

that APACHE II score includes GCS, but in our analysis, GCS was a better predictor of mortality. This may be due to some features of the patients included in the study, with many elderly already affected by dementia, a condition which may impair GCS assessment, and more prone to develop confusion and impaired consciousness after mild insults than younger patients. In addition, elderly patients are often malnourished and, moreover, develop dysphagia during hospital stay, which further complicate nourishment. These facts may explain the prognostic value of nutritional status in our patients.

Conclusions: We found that all GCS (χ^2 = 78.33), APACHE II (χ^2 = 23.54), previous institutionalization (χ^2 = 12.14; p < 0.001 for all three), previous acute heart event (χ^2 = 6.39; p = 0.011) and hematocrit (χ^2 = 7.03; p = 0.008), in this order, showed independent significant relationship with mortality. If SNS is also included, GCS still enters in the first place, but SNS is the second parameter independently related with mortality.

EA-117
CHARACTERIZATION OF PRIMARY SJÖGREN SYNDROME IN THE ELDERLY: STUDY OF 148 PATIENTS WITH AN AGE AT DIAGNOSIS > 70 YEARS OF AGE

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Objectives: To analyze the main clinical, analytical and immunological characteristics of patients with primary Sjögren syndrome (SS) diagnosed in the elderly and to compare those characteristics with younger patients.

Material and method: The GEAS-SS multicenter registry was formed in 2005 with the aim of collecting a large series of Spanish patients with primary SS. The registry includes 21 Spanish reference centers with substantial experience in the management of SS patients. By March 2012, the database included 921 consecutive patients (recruited since 1994), fulfilling the 2002 classification criteria for primary SS. We retrospectively analyzed the main clinical and immunological characteristics in SS patients diagnosed in the elderly (age at diagnosis > 70 years). The new 2010 EULAR-SS disease activity index (ESSDAI) was also retrospectively calculated.

Results: Of the 921 SS patients from the GEAS-SS cohort, 148 (16%) were diagnosed after 70 years of age: 138 (93%) were women and 10 (7%) men, with a mean age of 75.49 ± 0.34 years (range: 70-89). The main features consisted of xerostomia and xerophtalmia in 140 (95%) patients, respectively, parotid scintigraphy grade III/IV in 113/124 (91%) patients, positive minor salivary gland biopsy in 74/87 (85%), anemia in 46 (31%), leucopenia in 24 (16%), thrombocytopenia in 20 (13%), raised erythrosedimentation rate (higher than 50 mm/h) in 52 (37%), positive antinuclear antibodies (ANA) in 137 (93%), positive anti-Ro/SSA in 86 (58%), positive anti-La/SSB in 63 (43%), positive rheumatoid factor (RF) in 82/144 (57%), low C3 levels in 111/140 (8%), low C4 in 14/140 (10%), positive cryoglobulins in 14/119 (12%) and monoclonal gammopathy of undetermined significance (MGUS) in 15/111 (13%) patients. SS patients over 70 years of age had a higher frequency of anemia (31% vs 14%, p < 0.001), thrombocytopenia (13% vs 7%, p = 0.012), ESR > 50 mm/h (37% vs 28%, p = 0.025) and MGUS (13% vs 8%, p = 0.07), and a lower frequency of neutropenia (5% vs 13%, p = 0.03) and positive anti-Ro/SSA antibodies (58% vs 75%, p < 0.001) in comparison with younger patients. In the multivariate analysis, anemia (p < 0.001), neutropenia (p < 0.005), high ESR (p = 0.045) and anti-Ro/SSA (p < 0.001) were statistically significant variables. With respect to the disease activity measurement, no significant differences in the cumulative global ESSDAI scores between elderly and younger patients (9.96 vs 9.14, p = 0.31) were observed. However, elderly patients had a lower mean ESSDAI score in the articular domain (0.55 vs 0.77, p = 0.001) and a higher mean ESSDAI scores in the lung (2.03 vs 1.14, p = 0.002) and peripheral nervous system domains (1.59 vs 0.89, p = 0.014) in comparison with younger patients.

Conclusions: Patients with primary SS diagnosed in the elderly have a higher prevalence of cytopenias and MGUS but a lower prevalence of anti-Ro/SSA antibodies. Although the global ESSDAI score does not vary according to the age at diagnosis < or > 70 years, elderly SS patients have higher mean scores in the pulmonary and peripheral nervous system domains.

EA-118
THE POLYPATHOLOGICAL PATIENT, A NEW REALITY IN AN SHORT STAY MEDICAL UNIT

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Objectives: To compare epidemiological, clinical and prognostic variables between the patients, either polypathological or not, admitted in a SSMU.

Material and method: Prospective observational cohort study. 496 patients were included, either polypathological or not, admitted in the SSMU of a terciary hospital in Galicia between July/2011 and May/2012. The polypathological patient (PP) was defined as a patient who met 2 or more categories of the 8 proposed by an expert committee. Epidemiological, clinical and prognostic variables were compared between both groups (age, Charlson, Barthel, Pfieffer, polypharmacy, causes of admission, average length of stay, readmission rate, causes of readmission and mortality over one month follow up).

Results: A total of 191 patients (38.5%) met the definition of polypathological. The most common distinctive categories of polypathology were: cardiovascular disease (78%), nephropathy (53%) and neurological disease (30%). The results of the main variables after comparing them can be found in the table below.

Discussion: The socio-econocomic development in Europe in the last decades as well as the improvement in medical care make our patient live longer with multiple chronic diseases. Our study shows that the polypathological patient is already a reality. Not only do we know that nearly 4 out of every 10 patients admitted in an SSMU are polypathological, but they are also older, have higher comorbility, higher functional limitation and cognitive deterioration. Due to these peculiarities they become polymedicated patients, who stay longer in hospital, have a higher probability of readmission and probably have a higher cost of care.

Conclusions: Nearly 4 out of every 10 patients admitted in an SSMU are polypathological patients. Polypharmacy is more common among polypathological patients. The decompensation of some of the distinctive categories is the main cause of admission. The

Table (EA-118)

	Polypathological patients	Non polypathological patients	p
Age	76.8 ± 10.2	69.3 ± 14.4	< 0.01
Age adjusted Chalrson index	6.4 ± 2.5	3.7 ± 1.8	< 0.01
Barthel < 60	37%	8%	< 0.01
Pfeiffer > 3	40%	20%	< 0.01
Length of stay	7.4 ± 5.6	5.0 ± 5.1	< 0.01
Readmission rate (30 days)	10.5%	4.3%	< 0.01
Mortality after 1 month follow up	5.2%	2.3%	0.13

hospital stay is 2.4 days longer among polypathological patients as compare to no polypathological ones.

EA-119
PROGNOSTIC VALUE OF MICROORGANISM IDENTIFICATION IN SEPSIS

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Objectives: Sepsis is an important public health problem. Therapeutic guides include both obtaining blood cultures and early administration of empiric antibiotic therapy, adjusting treatment in case of positive cultures. However, in a large number of cases the causal agent is not detected. The aim of this study is to analyze whether the infectious agent detection and corresponding targeted therapy confers a better prognosis compared with empirical treatment.

Material and method: We performed a retrospective, observational study, including 188 episodes of sepsis, looking for the presence or not of positive microbiological results. We compared the mortality rate among both groups. Also, we compared the duration of hospitalization among survivors in both groups.

Results: Mean age was 68.1 ± 16.2 years. The male-female ratio was 1:1.11. The most frequent focus was respiratory (58%), followed by urinary (14.9%) and cutaneous (12.8%). Other sites were abdominal (6.4%) and catheter infection (3.2%). All patients were treated with empirical antibiotics according to type of infection. Sixty two out of 188 patients had positive cultures (32.97%) and 9 of them died (14.51%); In 126 patients no infectious agent was detected (67.03%); 22 of them died (17.4%). No significant association was observed between microorganism identification and mortality rate (χ^2 = 0.262; p = 0.609) According to hospital stay, after excluding outliers, we also failed to find differences among survivors with microbiological orientation (18.34 ± 14.08 days) and those without an identified agent (16.92 ± 10.94 days; t = -0.64; p = 0.52).

Discussion: In our study we found that identification of microbiological agent did not affect mortality or hospital length of survivors in septic patients. These findings are probably due to early adequate empirical antibiotic treatment. However, microbiological orientation is necessary to assess local microbiological resistances and, therefore, the establishment of proper empiric therapy.

Conclusions: In our study, identification of microbiological agent did not affect mortality or hospital length of survivors in septic patients, although can be useful in the assessment of local microbiological resistances.

EA-120
A NEW CHALLENGE FOR THE INTERNIST: THE TRANSITIONAL PATIENT

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Objectives: Palliative and Transitional Care Unit (PTCU) of Puerta del Mar University Hospital takes care of patients who after staying in the Intensive Care Unit because of severe brain lesions or surgical sequelae (mainly as result of neurosurgery and cardiac surgery), need to continue with hospital cares in other specialized areas. We pretend to describe the characteristics of these patients when they arrive at the PTCU, as well as to know the most important information about their stay in our Unit.

Material and method: This is an observational, retrospective study. We have reviewed the clinical histories of all transitional patients that were admitted in the PTCU during the year 2011. We analyzed several variables, which stand out the follows: 1. Condition of the patients when they were admitted in PTCU (cognitive state, extremities movement, chronic diseases and actual complications). 2. Other conditions: Carrying a tracheostomy, nasogastric probe, venous access and/or urinary catheter. 3. Progress during their stay and clinical situation of the patients when they were discharged from the Unit.

Results: We analyzed 37 patients in total, 26 (70%) were men. The mean age was 60 years. 86.5% of patients had at least one chronic disease, in most of the cases coexisted some comorbidities. 54% of them had an acute cerebral damage and 59.4% had some motor deficit. 83.8% caught some infectious disease (a respiratory infection in most of the cases), needing a specific antibiotic treatment depending on the isolated germ. 61% had other complications, different from infections. Upon their arrival, they carried a tracheostomy cannula with supplementary oxygen in 64.9% of cases; a nasogastric probe and therefore, enteral nutrition, in 67.6%; venous access in 100%, with a central venous access in 70%; urinary catheter in 91.9%. It was possible to remove the tracheostomy cannula to 16% of the patient that they had it, nasogastric probe to 48%, venous access to 70.2% and urinary catheter to 62.2%. The average stay was 39 days. 10 patients died and 27 were discharged, of whom 15 (56%) returned home, 9 (33%) went to a private clinic, 2 (7%) to other hospital and 1 patient (4%) was moved to other department in the hospital.

Discussion: Transitional patients have mostly a high complexity because of their chronic diseases and comorbidities, as well as by the acute disease that caused their admission in the Intensive Care Unit. In addition, most of them catch infectious diseases and/or other complications during their stay, which all cause an important necessity of cares, that we try to provide them in order to improve their clinical situation and actual conditions.

Conclusions: 1. The typical patient that we receive in our UCPT is male, middle aged and highly complex because of his history and acute diseases. 2. Most patients have clinical instability produced by the severe neurological damage linked to nosocomial infections (many of them by multiresistant pathogens) associated with decompensations of their chronic diseases. 3. At discharge, they have conditions that allow them to continue with cares at home or in non-specialized units, even if they have irreversible neurological sequelae.

EA-121
ANALYSIS OF MORTALITY IN PATIENTS SUBMITTED TO SURGERY FOR HIP FRACTURE

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Objectives: To analyze the mortality in patients admitted for hip fracture surgery: incidence (in hospitalization, at one, three, six and twelve months), clinical features of patients and risk factors.

Material and method: A retrospective review of medical records was carried out for all patients admitted for surgery for hip fracture between January 1st 2010 and December 31st 2011. Descriptive study was conducted to identify demographic features, comorbidity, mortality rate and causes (until June 1st 2012), mortality risk factors and postsurgical survival. A limitation of the study is the absence of a control group, which prevents us from analyzing the prognostic factors. Qualitative variables were expressed as frequencies (percentages) and quantitative variables as medians (25th and 75th percentiles). Statistical analysis was performed using SPSS 19.0 version.

Results: Three hundred and eighty nine subjects were included during study period; 295 (76%) females and 94 (24%) males. The median age of patients was 82 (77-88) years, 79 (66-84) and 83 (79-88) for male and females, respectively. Until June 1st 2012, 78 (20%) patients had died, 52 (67%) females and 26 (33%) males. The median age of these patients were 78 (79-88) years. Seventy-four (95%) patients had comorbidities, the most frequent were arterial hypertension (47, 60%), diabetes (37, 47%), heart disease (32, 41%), already had been diagnosed as having dementia (30, 39%), chronic respiratory disease (25, 32%) and cancer (20. 26%). The type of fracture was classified in: pertrochanteric (37, 47%), femoral neck (33, 42.3%) and subtrochanteric (8, 10%). The median time from surgery to death was 107 (31-287) days. Eleven (14%) patients died during postsurgical period into the hospital and 17 (22%) outpatients died before 30 days after surgery. Total mortality rate before 30 days was 7.2% (36% over total of deaths). Between 30-90 and 90-180 days after surgery groups died 15 (19% over total of death) patients in both groups, this means 4% of the total of the study population. Overall mortality rate in the first 180 days was 15% and 74% of the total of deaths. Five (6%) patients died between 180-360 days after surgery. The others deaths (17, 22%) occurs after the first year. Twenty one deaths (27%) were caused by infectious complications, 9 (12%) secondary to heart disease and 7 (9%) of them by cancer progression. In 22 (28%) cases, the cause of death is not registered.

Conclusions: The surgery for hip fracture takes place in a population with a high degree of comorbidity, reason why the mortality rate at 6 months is quite high. Independently, the third of the deaths occurred during the first month after surgery, so that might be needed to select a subset of patients in whom conservative treatment may be the best choice.

EA-122
DRUG INAPPROPRIATE PRESCRIPTION (DIP) IN ELDERLY PATIENTS ADMITTED IN ORTHOPEDIC WARDS

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Objectives: 1. To know the prevalence of DIP in elderly patients admitted in orthopedic service. 2. To describe the characteristic of DIP found. 3. To asses a primary care physician notification system DIP.

Material and method: Treatment for patients older than 65 years old, admitted in an orthopedic ward during a 3 month period, was reviewed. The presence of DIP, by the use of START and STOPP tests, was assessed. Information was obtained from the medical digital records, as well as from the admission forms and by personal interview with the patient and/or his caregiver.

Results: 268 patients were admitted. 34% (92) were older than 65 years old. 25 patients had at least one DIP, 57% of them were women. The median age was 74 years old. The average drug taken was 8.12 per day. Ten patients (40%) had multiple medical conditions. The most frequent diagnosis was fracture (40%). The average length of hospital stay was 12 days. 13 patients (52%) had caregiver at home. 53% of patients were independent according to the Barthel scale. 88% of patients had preserved general cognitive abilities. 44 DIP were recorded, The most frequently concerns detected were: B7 for the STOPP criteria (prolonged use -over 1 month- of long-acting benzodiazepines) and F3 for the START criteria (addition of an antiplatelet agent in diabetes mellitus if one or more mayor factors of cardiovascular risk coexisted). Only 7 modifications of treatment were observed in these patients one month after notification.

Discussion: We detected a significant percentage of DIP in the patients studied, which means a high risk of drugs side effects in these patients. The notification system was done by letter instead of telephone. Probably this was the main cause of the low number of modifications achieved.

Conclusions: 1) The prevalence of DIP in elderly patients admitted in a Orthopedic service is high. 2) DIP usually occurr in fragile elderly patients with polypharmacy and multiple comorbidities. 3) The notification by letter was not successful to modify treatments in these patients 4) DIP detection system could be useful in non-medical scenarios.

EA-123
CLINICAL AND HEALTHCARE FEATURES OF PATIENTS ADMITTED TO A NEW MONITORED UNIT INSIDE INTERNAL MEDICINE WARDS (SPECIAL CARE UNIT FOR INTERNAL MEDICINE)

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Objectives: To determine clinical and healthcare organizational features of patients admitted to a monitored Internal Medicine unit at a tertiary teaching centre in southern Spain.

Material and method: Longitudinal observational study performed between 2012 January and 2012 March that includes all consecutive patients who were admitted to our monitored unit and were

followed-up during a month after hospital discharge. This monitored unit (MU) gives support to any patient attended in Internal Medicine areas including offices, perioperative support consultants, day unit, day hospital, and on wards. It consists on a 5 monitored bed and a sixth one for diagnostic and invasive procedures, with a nurse/bed ratio of 1:5. Patients who have intensive care unit admission criteria are not admitted in this unit. Descriptive analysis (percentages, measures of central tendency, measures of dispersion) of the main clinical and healthcare features performed by SPSS 18.0.

Results: 106 patients were included for analysis. Mean age was 67 ± 26.45 years, 49% were male.

53% fulfilled the criteria of polypathological patients, 40% had at least an advanced non-cancer chronic disease, 11% had an advanced cancer. Mean ECOG, Charlson and PROFUND index were 1.30 ± 0.9, 2.9 ± 2 and 6.41 ± 4.7 respectively. 30% of the patients were admitted from conventional offices, 56.6% from Internal Medicine wards and 3.8% from surgical departments. Admission criteria were as follows: heart or respiratory failure 40%, sepsis/septic shock 9% and invasive procedures including central venous catheterization 14%. 9% were admitted to initiate medical treatment while they were waiting a bed on conventional ward and 13.3% because of Day Hospital overload. Most common complex therapeutic procedures ordered in MU were noninvasive mechanical ventilation (30%), blood transfusions (15%) and pressor-amines administration (14%).

Mean length of hospital stay at MU was 2.18 ± 3.1 days. Global mortality rate was 41%. 27% of deaths happened during MU stay, 45% happened during the same episode in other hospital areas and 15% during the first month after hospital discharge. 30% of patients were readmitted to the hospital during the month follow-up period.

Conclusions: The monitored unit in Internal Medicine improved autonomy and continuity of care of the Internal Medicine service. This also allows monitoring and the performance of complex procedures and healthcare in high risk patients from all internal medicine areas in a safer clinical environment.

EA-124
IS NECESSARY A MEDICAL PREOPERATORY EVALUATION IN EDERLY PATIENTS WITH COLORECTAL CANCER?

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Objectives: Colorectal cancer is a major public health problem, with a high incidence, particularly in elderly people. Perioperative management in elderly people is more complex than in younger people. The high morbidity and mortality of this type of surgery in this kind of patients, is due to the association of other diseases and a high surgery risk, such us another factors like malnutrition, polypharmacy, etc. that could deteriorate their prognosis. In current literature, there are just few studies published on perioperative care in elderly patients undergoing colorectal cancer resection surgery. The aim of this study is to determinate the frequency of postoperative period complications in elderly patients undergoing elective colorectal surgery in our hospital, and to evaluate the correlation with preoperative clinical and laboratory tests.

Material and method: We performed a prospective observational study from September 2011 to April 2012. We included all patients older than 65 years old undergone colorectal cancer surgery. Every patient underwent preoperative assessment through different anthropometric and biochemical tests. Postoperative complications data were recorded and analyzed in search of statistical significance.

Results: During this period we have seen a total of 66 patients: mean age 73.4 years old (range 65-91); 61% were male and 39% were female; about medication, patients had an average of 4.4 drugs per patient (range 0-13); anesthetic risk ASA II-III-IV of 43%-41%-16% respectively. 40% patients underwent laparoscopic surgery. Preoperative data that were obtained were: mean BMI 27.7 kg/m^2 (22-36.6), mean hemoglobine 12.6 g/dl (range 7.7 to 16.4), and mean total protein level of 6.5 g/dl (range 4.57 to 7.74) with albuminemia less than 3 g/dl in 7% of patients. Medical complications were recorded in 36.4% of patients. 40% were due to exacerbation of previous cardiovascular diseases, 25% to acute urinary retention, 20% to nosocomial pneumonia, 10% to acute confusional syndrome and 5% to other causes. There was no statistical significance ($p > 0.05$) between these complications and age, sex or the number of drugs taken by patients. We observed a high number of medical complications during postoperative period, but data were not statistically significant. We found statistical significance ($p < 0.05$), between low levels of hemoglobin, total protein levels and hipoalbulinemia with exacerbation of previous cardiovascular diseases. We did not find statistical relation between other complications.

Discussion: There were medical complications in 36.4% of patients undergoing elective colorectal cancer surgery in elderly patients, with numerous comorbidities and polypharmacy associated. This high rate of reported complications (40%), were due to exacerbations of previous cardiovascular diseases such as ischemic heart disease, arrhythmias and hypertension, being statistically associated with potentially modifiable preoperatively factors.

Conclusions: Due to elderly patients characteristics undergoing to this kind of surgery, we recommend a thorough preoperative evaluation in search of a correction of factors potentially modifiable by Internal Medicine specialists in order to reduce the number of complications during their hospitalization.

EA-125
HIP FRACTURE: THE ROLE OF INTERNAL MEDICINE

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Objectives: Osteporotic hip fracture is typically considered a surgical disease. However, the affected population has an average age of 85 years and, therefore, patients have often multiple diseases and medical treatments, with high rate of complications in the perioperative period. In our hospital, the average hospital stay of this process is 17 days and a mortality rate of 10%. For these reasons, it´s necessary a global evaluation of these patients to prevent and treat these complications.

Material and method: We propose the secondment of a specialist in Internal Medicine to meet daily to patients with hip fracture from the start of admission to discharge, making a clinical assessment and social environment of these patients.

Results: In two years, 1,200 patients with hip fracture have been evaluated, resulting in a reduction of 4 days in the average hospital stay (13.1 days) and a mortality rate of 4.95%. It has also shown a lower incidence of perioperative complications, less delay in the time of intervention, and less functional impairment of these patients.

Conclusions: The assignment of an internist to a surgical service means a significant reduction in morbidity and mortality characteristic of these pathologies.

EA-126
PREVALENCE OF VITAMIN D DEFICIENCY IN GERIATRIC INPATIENTS AND CARDIOVASCULAR DISEASES

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Objectives: Cardiovascular diseases (DCV) are responsible for 30% of deaths worldwide and are the number one cause of death, disability and poor quality of life. Some resources suggests that lake of vitamin D can be associated with cardiovascular diseases, representing a nonclassical risk factor, but those give few information. Vitamin D, known as the sunshine vitamin, is now recognized not only for its importance in bone health of adults but also for other health benefits such as reducing the risk of chronic diseases, including autoimmune diseases, cancer and DCV. The active vitamin D metabolite, 1.25-dihydroxyvitamin D (1.25(OH)2D), which is synthesized from its precursor 25-hydroxyvitamin D (25(OH) D), has been associated with protection of the heart and vasculature. There are several mechanisms proposed to explain how the lower serum 25 (OH) D are associated with increased risk of DCV that have been verified in several studies, wich increase level of dependence of our elderly. The aim of the study was to evaluate vitamin D deficiency in an elderly inpatients at a Internal Medicine Department and to determine the association between low serum levels with cardiovascular commorbilities, desnutrition risk and activity daily living independence.

Material and method: This was a descriptive study of elderly patients admitted in Internal Medicine department during the first month of the year (n = 50). We request all serum vitamin D. We based on the review of consecutive hospital discharge reports to find past history, namely cardiovascular risk diseases. We also evaluated brachial fold and desnutrition risk, as the degree of dependence.

Results: The media of age was 79.85, with median of 80 years old. 78% were women. In our inpatients group 98% presents vitamin D deficiency. We found 72% arterial hypertension, 42% dyslipidemia and 30% of diabetes mellitus. We also evaluated ischemic cardiomiopathy and stroke prevalence (16% and 32%, respectively). Folic acid and B12 vitamin were normal. Brachial fold media was 25.37 cm, with a trend to increase desnutrition risk in more elderly patients.

Discussion: Almost all patients in our study presented vitamin D deficiency and we evidenced in all patients at least two cardiovascular risk factors. We also found a high level of dependence, but not associated with desnutrition risk. Our study was in concordance with some literature that shows low serum 25-hydroxyvitamin D (25(OH)D) levels) to be strongly related to risk of hypertension, diabetes mellitus and an unfavourable serum lipid profile.

Conclusions: The vitamin D receptor (VDR) is a nuclear receptor localized in cells in a number of organs indicating important functions also in extra-skeletal tissues. More studies need to be made, however, if a causal link between vitamin D and cardiovascular disease is affirmed, intervening in vitamin D deficiency in the population with supplementation, and increasing, taking into account the recommendations, sun exposure to slow the development of this cardiovascular chronic diseases in the general population.

EA-127
CLINICAL CHARACTERISTICS OF PATIENTS WITH ATRIAL FIBRILLATION (AF) ADMITTED TO AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To assess the clinical characteristics of patients admitted with AF in an Internal Medicine Department.

Material and method: We reviewed the discharge summaries of patients admitted to an Internal Medicine Department of between October 2010 till 31 March 2011 inclusive, including in our study patients with AF.

Results: We reviewed 863 discharge summaries finding 179 patients with AF (20.74%). The mean age was 81.63 years whilst 53.07% were women. Other comorbidities were found in these patients, 80% were also hypertensive (46% used ACE inhibitors and 20.67% Angiotensin II Receptor Blockers), 39% were diabetic, 33.52% had ischemic heart disease, and 23. 46% had at some moment suffered a thyroid disorder.

Discussion: AF is the most common cardiac arrhythmia, increasing in prevalence with age. Other prevalent comorbidities such as hypertension, diabetes, ischemic heart disease are also associated with AF as well as with thyroid disorders.

EA-128
INTERNIST IN SURGICAL PROCESS

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Objectives: Several studies have demonstrated the favourable impact of the work of medical services on surgical elderly with multiple comorbidities patient care. Objectives: reduce microbiological risk in post surgery patient, medical complications care, prevent medication mistakes and perform medication reconciliation.

Material and method: Inclusion criteria are: age over 65 years; Charlson comorbidity index greater than 2, surgery intended stay more than 24 hours; any patient who develop postoperative complications. All patients admitted to our hospital with these items were evaluated for an internist in the period between October 2011 and March 2012. We check for demographic data, comorbidities, medical complications, nosocomial infection, surgical complications and clinical result. We made an simple descriptive analysis.

Results: We included 77 patients (64.9% women), with 63.7 (13-89) average age. Previous comorbidities: 55% hypertension; 37.3% dyslipidemia; 13% diabetes; 13% heart failure; 9% COPD. Charlson comorbidity index more than two was 36.4%. Red cross scale more than two was 39%. Patients came from Traumatology service (51), abdominal surgery (13), Gynecology (7), vascular surgery (5) and others (1). Complications during the postoperative stay: 19.5% exacerbation of previous comorbidity; 36,5% non infectious medical complication;11.7% surgical complication; 37.7% infectious complication. We observed favorable clinical response in 96% of cases. Hospital mortality was 1.3%. The internist took part in any

decision related to patient in 70% of cases. We decreased overall consumption of antibiotics (5.86 to 4.70 units per patient) and the admitted hospital period (3.9 to 3.6 days).

Conclusions: Age and comorbidity of patients undergoing surgical procedures require multidisciplinary care strategies to minimize complications. The program evaluates patients with higher risk of complications and assumes the prevention and treatment of them, and it also makes the medication reconciliation in this kind of polypharmacy patients. -Preliminary result from our program confirm the improvement in quality of vare of these patients, in terms o0 fhospital stay, morbidity, mortality, nosocomial infection rates, resource use and individual and collective satisfaction.

EA-129
CLINICAL FEATURES OF POLYPATHOLOGICAL PATIENTS WITH NON-ST-SEGMENT ELEVATION ACUTE CORONARY SYNDROME

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Objectives: To analyze clinical and functional differences between polypathological patients (PP) with non ST-segment elevation acute coronary syndrome (NSTEACS) who underwent percutaneous coronary angioplasty with optimal medical therapy or only optimal medical therapy.

Material and method: Prospective, multicenter, comparative cohort study of PP patients with non-ST-segment elevation acute coronary syndrome. The study population was conformed among PP patients with NSTEACS attended in Cardiology and Internal Medicine of four teaching hospitals of Andalucía. A group of patients who underwent coronary angioplasty and stenting with optimal medical therapy was compared with other group of patients who only received optimal medical therapy. Allocation to each group was based on the clinical judgment of the physician responsible for the patient. Both groups were followed for a year. Demographical, clinical, biological, functional, and care variables were analyzed. A descriptive analysis of all these items was performed using SPSS 18.0.

Results: 86 patients were included, 28 (32.6%) underwent angioplasty and 58 (67.4%) were treated with optimal medical therapy alone. 21 (75%) of patients undergoing angioplasty were male and 7 (25%) female, compared to 30 (51.7%) male and 27 female (46.6%) in the non angioplasty group, although this difference was no significant. One coronary was affected in 9 (31.2%) patients, two in 13 (46,4%) and three in 6 (21.4%), with a median rate of 2.15 (1-6) implanted stents. Patients undergoing angioplasty were younger (age in years 70.2 vs 75.64, p = 0.013), were more independent for the basic activities of daily living (basal Barthel index 88 vs 79, p = 0.001) and had a better prehospitalization cognitive status (Pfeiffer score 0.91 vs 2.64, p = 0.006). There were no differences regarding Charlson index score, number of chronic diseases, type of chronic disease, previous pharmacotherapy or presence or absence of caregiver between both groups.

Conclusions: A high rate of PP patients with NSTEACS are treated conservatively. Patients undergoing angioplasty and stenting are younger, functionally more independent and have a better mental status before the acute event, regardless the number or type of chronic disease, pharmacotherapy or presence of caregiver.

EA-130
CLINICAL OUTCOMES IN POLYPATHOLOGICAL PATIENTS WITH ACUTE CORONARY SYNDROME WITHOUT ST SEGMENT ELEVATION UNDERGOING CORONARY ANGIOPLASTY

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Objectives: To analize the impact of coronary angioplasty with stent in one year survival and functional status in polypathological patients (PP) with acute coronary syndromes without ST-segment elevation (NSTEACS) at high and medium risk, and investigate the predictors of mortality and complications in these patients.

Material and method: Prospective, multicenter, comparative cohort study of PP patients with non-ST-segment elevation acute coronary syndrome. The study population was conformed among PP patients with NSTEACS attended in Cardiology and Internal Medicine of four teaching hospitals of Andalucía. A group of patients who underwent coronary angioplasty and stenting with optimal medical therapy was compared with other group of patients who only received optimal medical therapy. Allocation to each group was based on the clinical judgment of the physician responsible for the patient. Both groups were followed during one year. Demographical, clinical, biological, functional, and care variables were analyzed. A multivariate analysis of all these items was performed using SPSS 18.0.

Results: 86 patients were included, 28 (32.6%) underwent angioplasty and 58 (67.4%) were treated with optimal medical therapy. The group treated conservatively was significantly older (75.64 vs 70.2, p = 0.013), and there were no differences in gender. Barthel index score of the group of patients who underwent angioplasty was significantly higher before the procedure (score 87 vs 71) but this difference was no significant in a year follow up (score 81 vs 69). One year follow up comparing both groups report no differences in ischemic heart disease readmissions, all-causes readmissions or acute heart infarction. Life expectancy was lightly higher in those undergoing angioplasty but this different was no significant (317+-15 vs 343+-13 days, p = 0.9). There were no differences in mortality.

Conclusions: Polypathological patients with NSTEACS undergoing angioplasty have a more independent functional status before the procedure than those treated conservatively, but this difference disappear one year later. Clinical outcomes including readmission, heart attack, mortality, or life expectancy in polypathological patients with NSTEACS undergoing angioplasty are similar to those treated conservatively in a year follow-up.

EA-131
MULTIMORBIDITY IN A MEDICINE WARD: RELEVANCE OF ILNESS SCORES TO THE INTERNIST

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Objectives: Analyze deaths in a Medicine Ward (MW), characterizing causes of death and patients comorbidities; calculate Charlson Comorbidity Index (CCI) and MEWS score.

Material and method: Retrospective descriptive analysis of all deaths occurred during two years in a MW. Use of CCI, a score to

predict one year-mortality in admitted patients with predefined diseases. Use of MEWS score, that pretends to identify patients at risk of clinical deterioration and need of urgent intervention. Use of International Classification of Diseases-10 (ICD-10) for diagnosis.

Results: A sample of 457 patients was obtained, 61.7% of male sex, with a mean age of 79.2 years old (minimum 32 and maximum 99, with a mode of 81). Sixty two percent of patients were totally or partially dependent for daily life. The most frequent admission diagnosis were: 33.1% Pneumonia, 12.9% Heart Failure, Ischemic Stroke in 9.0% and Cancer in 6.1%. An average Charlson score of 3.6 was obtained: 3.7% patients had a Charlson of 0 (corresponding to a 12% mortality rate/year), 33.6% had between 1 and 2 (26% mortality/year), 28.8 had 3 or 4 (52% mortality/year) and 33.6% had above 5 (85% mortality/year). An average Charlson-Age Adapted score of 6,8 was obtained; 84.1% had an index above 5. The average MEWS score was 3.2 (non critical patient at admission) but 40.9% had a score of 4 or more (indicating that extra support is required and there is risk of clinical deterioration). There was an average of 14 length of stay (minimum 1 and maximum 253). There's was no significant association between CCI and CCI Age-adapted and length of stay; but it was clear a significant association between higher MEWS score and shorter length of stay ($p < 0.001$). The most frequent causes of death were: Pneumonia 41.6%, Heart failure (HF) 14.2%, Septicemia 11.4%, Cancer 7.4% (unknown in 5.5%), Cerebral Thrombosis (CT) 5.9%. Of these main causes of death, Pneumonia, HF and CT had shorter length of stay (Medians 8, 9 and 8 respectively; versus Septicemia with 13 and Cancer with 14).

Conclusions: The sample showed an elderly population of multimorbidity patients, with moderated CCI scores but elevated CCI Age-adapted scores, corresponding to elevated mortality rates per year. The average MEWS score showed mainly non critical patients at admission, but in those who had higher score value the length of stay was significantly reduced. The main causes of death were either acute illness or acute decompensation on chronic pathologies.

EA-132
ANAEMIA IN AN INTERNAL MEDICINE WARD. RETROSPECTIVE STUDY OF THE 2ND SEMESTER OF 2011, AT A CENTRAL HOSPITAL OF LISBON

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Objectives: Identify and characterize the types of anaemia in an internal medicine ward. Correlate these data with some of the population characteristics, such as age and co-morbidities.

Material and method: Retrospective analysis of the patient files admitted to an internal medicine ward, at a central hospital of Lisbon, during the 2nd semester of 2011. We considered all the admissions with the discharge diagnosis of "anaemia", according to the WHO criteria (Hb < 13 g/dL for men and < 12 g/dL for women).

Results: Of the 254 files analysed (M: 99/W:155), all Caucasians, with average age 80yr: 38 (15%) had anaemia (M:10/W:28), being the cause of admission in 20% of the cases. It constituted the main final diagnosis in 5 cases (13%) and a secondary diagnosis in the left majority. The mean haemoglobin value at admission was 9.3 g/dL, the minimum value found was 5.6 g/dL and one third of the patients required transfusion support. Therapy with oral iron and/or folate was prescribed to 37% of the patients, after discharge. Morphologically, the majority presented normocytic anaemia (70%), being the microcytic and macrocytic causes responsible for 16% e 13%, respectively. Assessing the etiological causes, 37% had multifactorial anaemia, 18% iron deficiency and 16% anaemia of chronic disorders. No obvious cause was found in 10%.

Discussion: In this study anaemia was found to be a quite common diagnosis. Both prevalence and female sex predominance were similar to the data reported by other European studies. Considering that it rarely is the admission cause, anaemia largely contributes for the worsening of the patient's clinical condition. Regarding anaemia's morphological classification, most cases were found to be normocytic and the cause multifactorial, to which iron deficiency, renal chronic insufficiency and chronic disorders (infectious, inflammatory and malignant), contribute the most.

Conclusions: Advanced age and multiple co-morbidities –typical characteristics of our patients- makes it, sometimes, extremely hard to identify the aetiology of anaemia and less suitable the application of the standard classification. Furthermore, the age and clinical condition limit some invasive diagnostic procedures, when weighing the cost-benefit. This largely justifies the high rate of anaemia with unidentified aetiology.

EA-133
DETERMINE THE PREVALENCE AND CLINICAL CHARACTERISTICS AND CARE OF A COHORT OF PATIENTS WITH MULTIPLE COMORBIDITIES ADMITTED TO INTENSIVE CARE UNIT

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Objectives: To know the prevalence and clinical characteristics and care of a cohort of patients with multiple pathologies admitted to the ICU of the Hospital Regional de Orihuela during the period of time from January to June 2011.

Material and method: Retrospective study. Inclusion criteria: all patients admitted to the ICU during the study period. Exclusion criteria: patients from scheduled surgery and patients admitted for placement of intravascular devices. Primary endpoint: patients with multimorbidity (PP) defined by the presence of at least two or more chronic diseases in the same patient. Explanatory variables: We analyzed the clinical characteristics, care, functional, and ICU mortality and 6 months after admission. We performed a descriptive and comparative analysis between patients PP and the rest of the explanatory variables with SPSS 17.0.

Results: 326 patients were excluded: 42 patients admitted for placement of MP and 156 patients from surgery scheduled. Were included 128 patients, of whom 46 patients had PP criteria (35.9%). The most prevalent chronic diseases were: chronic heart failure (56.5%), chronic renal failure (54.3%) and chronic respiratory disease (37%). The PP had a higher age (71.3 ± 11 years versus 65 ± 15 years, $p = 0.05$), most often come from the ward (47.8% to 23.2% versus, $p = 0.004$), require greater burden of care: invasive ventilation (58.7 versus 29.3%, $p < 0.001$), use of vasoactive drugs (58.7 versus 29.3%); blood transfusion (39.1 versus 12.2%; $p < 0.001$). Main syndromic diagnosis between PP was respiratory failure (43.4% vs 9.7%). ICU mortality was 41.3% in the PP compared to the other patients 17.1% ($p = 0.003$) and mortality at 6 months increased the PP to 69.9% compared to 18.3% ($p < 0.001$).

Conclusions: A high prevalence of PP entering the ICU. These patients have different clinical characteristics and care as is his advanced age, the greater burden of care and higher mortality rate that persists in following six month. It is important to identify prognostic markers in the short and medium term in this emerging population.

Clinical management

G-1
TREATMENT OF PATIENTS WITH CHOLECYSTITIS BY HOSPITAL AT HOME

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Objectives: Verify the efficacy and safety of treating patients with cholecystitis by a Hospital at Home Unit (HaH).

Material and method: Prospective study since January 2010 to May 2011 including patients diagnosed with acute cholecystitis, not operated on and without comorbidity admitted to HaH after 12-24 hours at Observation ward within Emergency Department. All patients were treated with ertapenem.

Results: 25 patients were included. Mean age was 59 years. All patients had abdominal pain, 60% fever and 32% vomiting. 48% presented with leucocytosis. All patients had cholelithiasis and distended gallbladder, 56% showed thickening of the gallabladder wall. Fluid accumulation around the bladder was noted in 16% of the cases. Murphy´s sign was positive in 44%. All patients had a favorable course, and none required transfer to the hospital. All patients treated with HaH expressed their satisfaction with this type of treatment and would choose Hospital at Home again.

Discussion: Some studies have shown the efficacy of treating abdominal infections after several days in Hospital. HaH allows for treating patients diagnosed with cholecystitis at home with the same treatment that they would have received in Hospital.

Conclusions: Treatment of patients with acute cholecystitis without comorbidity at home after a short period of observation is safe and effective.

G-2
TREATMENT OF PATIENTS WITH UNCOMPLICATED DIVERTICULITIS AND COMORBIDITY BY HOSPITAL AT HOME

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Objectives: Verify the efficacy and safety of treating patients with uncomplicated diverticulitis and comorbidity by a Hospital at Home Unit (HaH).

Material and method: Prospective study since January 2007 to December 2009. Patients were transferred to HaH after 12-24 hours at Observation ward within Emergency Department. All patients were treated with intravenous antibiotic.

Results: 176 patients were diagnosed with uncomplicated diverticulitis at the Emergency Department. 18% of them (33) had comorbidity. Four patients stayed at Hospital because did not have a caregiver. One diabetic patient worsened at observation ward and suffered perforation, needing urgent surgery. 28 patients were transferred to HaH. Eighteen patients had cardiopathy, eight diabetes mellitus, one patient chronic hepatopathy and one chronic renal failure. Mean age was 74.2 years. All patients had abdominal pain and 31.2% fever. 46.8% presented with leucocytosis. 21.8% had previous history of diverticulitis. Mean stay of patients admitted to HaH Unit was 9 days. All patients had a favorable course, and none required transfer to the hospital. 98% of patients treated with HaH expressed their satisfaction with this type of treatment.

Discussion: Some studies have shown the efficacy of treating at home patients with uncomplicated diverticulitis. Patients with comorbidity were not included in those studies. HaH allows for treating these patients at home with the same treatment that they would have received in Hospital.

Conclusions: Treatment of patients with uncomplicated diverticulitis and comorbidity at home after a short period of observation is safe and effective.

G-3
TREATMENT OF PATIENTS WITH POSTOPERATIVE INTRA-ABDOMINAL ABSCESS IN HOSPITAL AT HOME

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Objectives: We analyzed the safety and efficacy of treating these patients in a Hospital in the Home (HIH) Unit.

Material and method: Prospective study from January 2010 to December 2011 including all patients diagnosed with postoperative intra-abdominal abscess admitted to the HIH Unit. Intravenous treatment initiated at Hospital was continued at home. Before discharge from HIH all patients underwent an abdominal-CT to verify abscess resolution. Main outcome measures: age, sex, microbiology, treatment, mean stay in HIH, clinical course, need for unexpected returns to hospital, hospital readmission occurring within one month after HIH discharge and patient satisfaction.

Results: 44 patients were included. 63.6% were male. Mean age was 67 years (42-89). 9% had cardiopathy, 6.8% diabetes mellitus and 2.3% chronic renal failure. 33 patients (75%) had more than one abscess. The most frequent microorganisms isolated were Escherichia coli (31.3%), bacteroides fragilis (13.6%) and Streptococcus spp (13.6%). 36.3% of the patients had polymicrobial infections. The most used antibiotics were piperacillin-tazobactam and ertapenem. Two patients made an unexpected telephone call during their admission to HIH. All patients had a favorable clinical course. No patient required readmission to the hospital. Mean stay in HIH was 14 days (8-21). All patients expressed their satisfaction with the treatment at home.

Discussion: Patients diagnosed with postoperative intra-abdominal abscess stay at Hospital until the end of intravenous treatment. Treating these patients at home may save days of hospital stay and increase patient comfortability.

Conclusions: Our study reveals the safety and efficacy of treating at home patients diagnosed with postoperative intra-abdominal abscess.

G-4
CLINICAL PROFILE OF NONAGENARIAN PATIENTS ADMITTED TO SPANISH INTERNAL MEDICINE DEPARTMENTS

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Objectives: To describe the demographic and clinical profile of nonagenarian patients admitted in internal medicine departments in Spanish hospitals, and to compare it with younger patients.

Material and method: We identified through the CMBD (Basic Minimum Data Set) every patient older than 90 years admitted to Internal Medicine Departments of the Spanish National Health Service public hospitals between 2005- 2008. Hospital discharge data were obtained from the CMBD. A diagnosis-related group (DRG) was identified for every patient. The DRG 21.0 version was used. We compare data from this nonagenarian group with data of younger adult people. In order to determine comorbidity the

Charlson Index (CCI) was used. All statistical analyses were performed using SPSS 14.0.

Results: Sample includes 131,434 patients over 90 (6% of total patients attended). 2,222 patients were over 100 years, 45.3% patients under 90 were women, against 67.3% of those over 90 ($p < 0.001$). The top ten DRGs listed in the older group include three new entities not-present in the younger population: pulmonary oedema (DRG: 87), severe urinary tract infection (DRG: 320), and severe respiratory tract infection (DRG: 540). The first 5 DRG were: pneumonia/bronchitis (541): 11.9%, heart failure (127): 8.9%, rhythm disorders (544): 7.5%, pulmonary oedema (87): 3.8%, and other respiratory diseases (89): 3.24. In all cases, rate of these entities were higher than those found in younger patients. Among this top ten only COPD and angina had a higher rate in the younger group. Rate of hospital deaths were 9.1% among the younger group and 21.8% among the nonagenarians ($p < 0.001$). If we take into account only the first 48 hours after admission mortality rates were 2.2% vs 6% ($p < 0.001$). 78.2% of nonagenarian patients went home after discharge.

Discussion: Some peculiarities exist among this population which marked the differences with the standard patient admitted to IM. The number of surgical procedures performed to them are lower (mainly pacemakers implanting and orthopedic procedures). Also, there is a greater proportion of patients sent to nursing homes, reflecting an increase need of care and an absence of care-givers. Finally, the comorbidity index or Charlson index is logically higher with 19.95% (11,233 patients) with a score above 3.

Conclusions: 1) There are a high number of nonagenarians patients admitted in hospital Internal Medicine Departments 2) the rate of women increases with age. 3) The type of diagnosis varies according with age. 4) Death's hospital rates increase with age, both if we consider early or global mortality. 5) A substantial number of these very old patients are able to return home after discharge.

G-6
BEYOND THE GERMAN VIEW: DECISION FINDING FOR A CRITICALLY ILL PATIENT

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Objectives: The primary objective of this contribution is to clarify common views and differences among young doctors from several European countries in deciding on the management of a critically ill respectively dying patient.

Material and method: At ESIM in Saas Fee in January 2012 40 young Internists in training from 23 European countries came together for a week to experience an exciting and challenging medical and social programme. In one of four workshops we spoke about coping with difficult situations in clinical practise. The material for this abstract comes from the contributions to the discussion which was based on a case about a critically ill patient brought into hospital at night. The young doctor on call had to make a decision about life sustaining interventions and transferring the patient to ICU. The given clinical example was quite clear – this was a dying patient who had previously been in very poor condition and was now suffering from a pneumonia and chronic heart failure.

Results: In the group discussion the focus was mainly on three aspects. 1. The role of the family plays a very important role and differs a lot within our countries. It depends on cultural aspects as well as on legislations. In some countries like Turkey the communication with the family is often more important than with the patient himself. The family could insist on continuing invasive treatment even though we think that it is no longer medically indicated or has any perspective. We should not let this put us under pressure. In Switzerland it has been established that the family´s decision on the continuation and invasiveness of treatment is binding for the doctor. In Germany we focus a lot on the advance directive and there has been a large political and ethical controversy about this. This document is helpful but there are many situations where other aspects play a role and it is not easy to decide whether the directive actually applies. We find that the personal communication with the patient and the family cannot be replaced by a written document. 2. End of life care is a religious question. For patients without a religious background any life may be better than no life at all. So there were some residents who would have taken the patient to ICU and done everything to keep him alive even though the prognosis was very poor and the medical sense doubtful. 3. The modus of limiting therapy if we decide not to continue with maximum treatment was discussed controversly -whether it is possible to stop invasive therapy like ventilation or whether we would not add any further therapy. This procedure seems to be variable within different hospitals but not depend much on the country or culture.

Discussion: Among several European countries we have many common views on the treatment of a dying patient but we are also different in some approaches. We mostly depend on our different cultural and religious backgrounds but also on the legislations and resources that we have in our country as well as on the individual spirit of our hospital and the team involved.

Conclusions: Decision finding for a critically ill patient is determined by cultural as well as structural and legislative aspects and also depends on the education and personality of the doctor and his superiors. This reflection on an ESIM discussion is a chance to look beyond our personal view. In our hospitals we often see patients from all over Europe and it can help to consider these aspects when approaching the patient and the family. When thinking of establishing European standards in end of life care we may also be inspired by these ideas.

G-8
STATINS USE IN INPATIENTS WITH NON-CARDIOEMBOLIC ISCHAEMIC STROKE: RETROSPECTIVE TURKISH POPULATION STUDY

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Objectives: The aim of this study was to investigate dyslipidemia, treatment and control of dyslipidemia among Turkish non-cardioembolic ischemic stroke patients in a physical medicine and rehabilitation clinic.

Material and method: Stroke inpatient case notes were ascertained through retrospective clinical identification by International Classification of Diseases, 10th revision codes. Non-cardioembolic ischemic stroke patients underwent assessment. We determined low-density lipoprotein cholesterol (LDL-C) levels and the use of statins. Serum level and control of lipids were classified according to the AHA/ASA guidelines for the prevention of stroke in patients with stroke or transient ischemic attack.

Results: 134 stroke patients' records were screened. 76 (57.0%) fulfilled the inclusion criteria and underwent assessment. LDL-C was measured in 95% of all these patients. 39 (51.3%) patients' LDL levels were > 100 mg/dl, but they were not on LLT. Also, 15 (19.5%) patients were on LLT, but 5 patients' LDL levels were > 100 mg/dl.

Conclusions: Statins were highly underused in patients with non-cardioembolic ischaemic stroke, particularly among patients, statins were indicated according to existing guidelines.

G-9
USE OF ANTIPLATELET DRUGS IN PATIENT WITH NON-CARDIOEMBOLIC ISCHEMIC STROKE: TURKISH POPULATION STUDY

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Objectives: There was few information about antiplatelet and anticoagulant drugs use of non-cardioembolic ischemic stroke patients in Turkey. Aim of this study was to evaluate the use of these drugs in ischemic stroke patients in Turkish population.

Material and method: In this single-center, retrospective, non-cardioembolic ischemic stroke inpatient case notes were included trial. Patients' demographic features, stroke time, effected side, acute stroke care center and medication history were determined for all participants. Antiplatelet agents use rates and preferred medication (monotherapy or combination) were determine. Also appropriateness of therapy according to AHA/ASA secondary stroke prevention guidelines was determined.

Results: 77 non-cardioembolic stroke cases were underwent assessment. Mean age was 65.4 ± 1.3 years and 61% were men, post stroke time was 2.0 ± 0.1 months and 18.2% (n = 14) was recurrent stroke. 64.9% (n = 50) of the patients had a history of hypertension, 39% (n = 30) had diabetes 35.1% (n = 27) had ischaemic heart disease and 41.6% (n = 32) had dispepsia. 48.1% (n = 37) of patients had used ASA, 20.8% (16) had used clopidogrel, 14.3% (n = 11) had used ASA + clopidogrel, 4% (n = 5.2) had used ASA + dipiridamol and 3.9% (n = 3) were on dipidamol monotherapy. 6.5% (n = 5) non-cardioembolic ischaemic stroke patients had used neither antiplatelet nor anticoagulant medication.

Conclusions: Stroke patients should be closely monitored and antiplatelet drug use must be fully assessed in each visits.

G-10
ANALYSIS OF MORTALITY IN A NEW HOSPITAL DURING THE FIRST MONTHS

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Objectives: The admissions in the Hospital de Tomelloso (HdT) started in April 2007. The first ward opened was Internal Medicine with 50 beds. There were no other specialists apart from general physicians in Emergency Department until two years after. The objective is to analyse the mortality of the inpatients during the 15 months (from April 2007 until July 2008).

Material and method: Retrospective study with case search by CMBD (Basic Minimum Data Set). Review of the medical history. Analysis with SPSS version 15.0.

Results: 114 deceased patients were included (8.3% of the 1,377 inpatients in that period). 63 were males (55.3%), the median age was 81 years-old (minimum 34 and maximum 98) and most of them belonged to the health area of HdT (95%). The patients stayed at the hospital around 9 days (median 4, range 1-93 days). The most frequent pathologies were diabetes mellitus (67%), arterial hypertension (55%), cognitive impairment (40%), ischemic heart disease (31%) and cancer (31%). There were 52 patients who had been admitted to the hospital at least once in the previous 12 months, twice in 11 cases and three times in 4 cases. The admission was for a related diagnosis in the 80%, and the main diagnosis were infection in 41, cardiological disease in 18, neurological disease in 21, dyspnea in 12, tumoral progression in 9 and others in 15. 29 inpatients suffered nosocomial infections (25%) being pneumonia in 13 (49%), urinary tract infection in 9 (31%) and bacteremia in 8 (28%). The most frequent cause of the decease was the multiorgan failure (36%) followed by acute respiratory failure (32.5%), septic shock (17%), congestive heart failure (11%), stroke with intracranial bleeding (2%), acute myocardial infarction (2%) and haemorrhagic shock (1%). The moment of death is usually at night (40%) especially between 05:00 a.m. and 07:30 a.m. The death was unexpected in 3 patients: an 88 years-old man with acute myocardial infarction with changes in electrocardiogram and blood analysis, a 91 years-old man with lung cancer suspected and a 77 years-old man with chronic respiratory disease and respiratory arrest for pneumothorax. Autopsy was offered in these 3 patients and other 6 patients more but their family didn't accept it in any case. The medical report was completed in 3 days on average.

Discussion: The age and morbility of the patients is high. The presence of cognitive impairment and subsequently of dysphagia is the cause of respiratory infections and dyspnea in most of the patients as well as the cancer. Although the cause of death was not completely clear in some cases, the recommendation for an autopsy was not accepted.

Conclusions: The most important factors are the age and the morbility before admission.

G-11
ANALYSIS OF THE PATIENTS ADMITTED TO A NEW HOSPITAL DURING THE FIRST YEAR

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Objectives: The Hospital de Tomelloso (HdT) was opened in 2007 as part of a complex with the Hospital General La Mancha Centro (HGLMC). In the HdT the admissions started the 16th of April and the Emergency Department two weeks after. The first opened ward included 50 beds and was in charge of Internal Medicine. The physicians on guard duty were three general physicians in Emergency Department and one specialist in Internal Medicine. The rest of specialist and the Intensive Care Unit were in HGLMC. The objective is the analysis of the patients admitted in the 15 months, including clinical data, transferences to another hospital (for diagnosis or radiological tests), clinical evolution and requested ambulances after discharge.

Material and method: Retrospective study with case search by CMBD (Basic Minimum Data Set). Analysis with SPSS version 15.0.

Results: 1,377 inpatients were included, with age between 16 and 103 years (median 75 years). 703 were males (51%) and the median of admission was 8.79 days (range 1-125). There were more admissions during the winter especially in February 2008. 1,358 patients belonged to the health area of the hospital complex, being 1,232 from the HdT area (89.5%) and 126 (9.1%) from the HGLMC area, with only 19 patients from other health areas. The inpatient origin was the Emergency Department in most of the cases (89.1%, being HdT in 863 patients (62.7%) and HGLMC in 364 (26.4%)), followed by programmed admissions in 105 cases and transference from other hospitals in 45 patients. The patients were discharged in 1211 cases after good evolution or stabilization, 22 patients were

discharged with unfavourable evolution (the most of them were oncological patients) and 144 patients died at the hospital. During the admission, it was necessary a transference in ambulance in 471 inpatients (34.2%). The reasons included diagnosis test without availability in HdT as echocardiography (237), endoscopies (152), coronariography (25), magnetic resonance (18), making specimens (13), and consulting by other specialists (21). An ambulance was demanded in 595 of the discharges (about 50%) and the reason was locomotion disability. The main diagnosis was infectious in 583 (pneumonia in 186, sepsis in 60, urinary infection in 66), followed by cardiological (238, with congestive heart failure in 122 and acute coronary syndrome in 51), neurological (145, with stroke in 126) and gastrointestinal (103).

Discussion: The absence of Intensive Care Unit is a determinant factor in the selection of the patients especially in the first months. The number and kind of inpatients was increasing after July including younger cardiological patients. However there was no cardiologist in HdT during that period so it was necessary to transfer inpatients to HGLMC for diagnosis test like echocardiography in many times. Regarding to the discharges the request for ambulance is high (about half of the patients) what represents an important medical expense.

Conclusions: The availability of human resources and diagnosis tests is essential to understand the type of inpatients and necessity of transference to other hospitals. The possibility of ambulance transference in the discharge is usually considered as a right for the patients and their families.

G-12
LIPID PROFILE AND GENDER RELATION IN NON-CARDIOEMBOLIC ISCHEMIC STROKE SURVIVOR

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Objectives: Non-cardioembolic ischemic stroke patients' lipid levels and association with gender is unclear in Turkish population. The aim of this study was to investigate lipid profile in this population and assess the relationship between genders.

Material and method: Stroke survivor who were on rehabilitation program between 2009 and 2012 years were assessed in single center, retrospective and observational study. Non-cardioembolic ischemic stroke patients underwent assessment. Patients' genders and lipid levels were recorded and relationship between these parameters was assessed.

Results: Eighty three stroke survivors had non-cardioembolic ischemic stroke etiology. Six of these patients were excluded because of missing data. Final analysis was made on seventy seven patients. Demographic and clinical characteristic of the study was as in Table 1 and lipit profiles were in Table 2. Women had lower HDL-C levels and higher LDL-C levels, but it was not significant.

Conclusions: Turkish stroke survivors HDL-C levels and relationship with gender should be assessed in a prospective and multicenter study.

G-13
HF_MIRAP CONSULTATION: EVALUATION OF TEN NEW PATIENTS DAILY IN AFTERNOON TIME (PART 1, ADEQUACY OF REFERRALS)

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Objectives: Assess the adequacy of referrals to a consultation of internal medicine department of the Hospital de Fuenlabrada, designed to value daily 10 new patients (30 minutes per patient, 2 to 4 days per week depending on the month) in afternoon time, to provide coordination with primary care.

Material and method: Cross-sectional study of 1140 new patients attended from January to December 2011 at a consultation of internal medicine department in afternoon time. Statistics: %, mean + SD. Comparison: ANOVA, chi^2.

Results: Obtaining of the initial information: Horus program (51%), interconsultation paper (40%), Selene program (9%). Source of patients: primary care 91%, specialist care 9% (Urgencies 62%, Ophthalmology 7%, Neurology 5%). The patients were referred by 146 primary care physicians from 10 health centers. It is notorious that 25% of patients were referred by 10 physicians ("the most outstanding"). Consultation type: normal 71%, preferred 29%. There were no significant differences between health centers, but there were differences depending on the referring physician (p = 0.000). The delay from the request date to the first visit was 24 ± 2 days with differences (p = 0.000) depending on the month of the year (longer during the summer due to closure consultation) and the change of appointment by the patient (4%). 10% of the patients were immigrants

Table 1 (G-12). Demographic and clinical characteristic of the study population

	Men (n = 47)	Women (n = 30)	p
Age, year (Mean ± SD)	64.28 ± 1.76	67.43 ± 1.887	0.174
Stroke time, month (Mean ± SD)	4.09 ± 1.45	5.7 ± 2.57	0.312
Ischaemic heart disease (percentage)	18(38.3%)	9(30%)	
Hypertension (percentage)	27(57.4%)	23(76.7%)	
Diabetes mellitus (percentage)	17(36.2%)	13(43.3%)	
Lipid lowering treatment	10(21.3%)	5(16.7%)	

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Table 2 (G-12). Lipid profiles of study population

	Men (n = 47)	Women (n = 30)	p
Total cholesterol	171.21 ± 5.70	171.567 ± 7.1	0.925
High-density lipoprotein cholesterol	39.2 ± 1.7	36.9 ± 1.4	0.762
Low-density lipoprotein cholesterol	102.78 ± 4.87	107.10 ± 5.6	0.471
Triglyceride	145.72 ± 11.57	137.87 ± 10.65	0.251
Non-HDL cholesterol	132.02 ± 5.35	134.64 ± 7.0	0.715
Total cholesterol/High-density lipoprotein cholesterol	4.62 ± 0.2	4.82 ± 0.26	0.655

(18% Morocco, 37% rest of Africa, 25% South and Central America, 13% Europe, Asia 6%) with a residence time of 9 ± 7 years. 11% of patients missed the first visit (in relation to waiting time p = 0.000 and emigration p = 0.002, bear no relation to age, sex, type of consultation or health center), 11% did not make the test and 15% did not go to the review. 21% of lost patients request new appointment (80.5% request two appointments and 2.4% request three appointments). Appointments due to delay in another specialty (confirmed in Horus program) 3% (Digestive 50%) There were 4% patients cited simultaneously in another specialty (Digestive 29%, Pneumology 17%, Nephrology 12%) 26% of cases were wrong derived. The causes were: appointment preferred (58%), already studied (17%), simultaneous appointment (12%), no pathology of internal medicine (7%), routine monitoring in internal medicine (3%) and awaiting results requested by primary care (2%).

Conclusions: Utility of Horus program to obtain information. Most cases are from primary care (91%). High number of preferred consultations (29%) even though the waiting time is low (mean 24 days). Difference in waiting time in function of month of the year (delay after the summer months) and the change of appointment by the patient. High number of missed cases (20%). Relationship between those who did not attend the first visit (11%) with the waiting time and migration. 21% of lost patients request new appointments (up to 3 quotes) 3% of citations for delay in another specialty (50% Digestive) and 4% of simultaneous appointment (Digestive and Pneumology). Finally there were 26% of patients wrong derived.

G-14
RADIOLOGY EXAMS IN A MEDICINE WARD DURING ONE YEAR

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Objectives: Quantify Radiology Exams (RE) -X-rays (XR) and computerized tomographies (CT)- performed during hospital admissions: determine motive, diagnosis, usefulness in diagnosis and therapy.

Material and method: Retrospective study of all RE performed to patients admitted to the Medical ward during one year.

Results: A sample of 105 patients was obtained, 58% of female sex, with medium age 74 and average length of stay of 12 days. Most patients where admitted with Cardiovascular or respiratory disease. The most frequent diagnosis at admission where: 28% pneumonia, 13% stroke, 11% heart failure, 4% pulmonary embolism, 2% pleural effusion and COPD. Before being transferred to the ward 90% had already performed a RE (most of them for diagnosis purpose) and in 35% of them, more than 2 exams were performed (with an average of 1.4 RE per patient). At the medicine ward where requested an average of 1.4 RE per patient; 48% for clinical evolution evaluation, 32% per diagnosis, 29% per routine purpose. Half the patients only performed one RE, 62% performed one XR and 19% two or more; 19% performed one CT. The more frequent radiologic changes where: condensation, interstitial infiltrates, high cardiothoracic index; blunting of the costophrenic angles; chronic parenchimatous changes. In 20% there were no significant changes. The percentage of definitive diagnosis was coincident with the admission diagnosis. What concerns to the utility of RE performed, in 67% of the cases it did not led to a new diagnosis but in 66% modified the therapeutic strategy.

Conclusions: A significant amount of RE are performed in the ward. Most are performed to characterize clinical evaluation but a significant percentage is done with diagnostic purpose. Thus, a significant percentage of RE are repeated for the same patient not leading to a new diagnosis or change of clinic/therapeutic strategy.

G-15
THE INTERNIST´S ROLE IN THE EVALUATION OF INPATIENTS: AN EXPERIENCE IN A PRIVATE CLINIC

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Objectives: The objectives of the study were to know the characteristics of Clínica San Roque inpatients requested to the Internal Medicine Department and to assess the workload that they involve.

Material and method: An observational descriptive prospective study was made. Clínica San Roque inpatients admitted by other specialties who needed evaluation from Internal Medicine Department from October 2011 to March 2012 were included. The evaluated variables were date of the first visit and follow-up days, the requesting service, cause of consultation, patient demographics, comorbility and Charlson index, diagnosis, quality criteria established by Irazabal and if they needed to be referred to the Internal Medicine Department.

Results: 77 patients were included in the study, which led to 405 visits. It involved a workload of 3.12 more patients a day. There were 29 men (38.2%) and 47 women (61.8%). The mean age was 69.8 years (SD 16.7, range 18-95), being 66.8 in men (18-94) and 71.2 in women (34-95). The main personal antecedents were hypertension (50.6%), cardiovascular disease (29.9%) and cognitive impairment (28.6%). The medium Charlson index was 1.74 (range: 0-8). The most frequent requesting services were Traumatology (61%), General Surgery (13%), Cardiology (9.1%) and Urology (6.5%). The mean follow-up period was 5.26 days (1-31). All consults were seen the same day of the request. The principal causes were pluripathologic evaluation (13.5%), confusional syndrome (11.2%), antibiotic adjustment (10.1%), cutaneous rash (9%) and anemia (6.7%). The medical history quality evaluated with Irazabal's criteria showed personal antecedents described by the responsible department (84.2%), usual treatment (57.9%), diagnostic tests performed before evaluation (40.8%) and diagnosis hypotheses of the referring department (48.7%). We conclude a good quality in 23.4%, regular quality in 66.2% and bad quality in 10.4% of the consults. The final diagnoses are resumed in Table 1. Four patients (5.2%) were transferred to the Internal Medicine Department. There were no deceases.

Discussion: We agree with previous researches performed in Internal Medicine services of public hospitals that Traumatology is the most frequent requesting service, and the one that most follow-up days needs, followed by General Surgery. Nevertheless, the main diagnoses in public hospitals are heart failure, chronic respiratory insufficiency and bacteraemia. We highlight that the 10.4% of our diagnoses were drug adverse effects.

Conclusions: Internal Medicine plays an important role in the private hospital setting. We agree with public hospitals that surgical departments are the most petitioner services, however the cause of consult and diagnoses were different. It implies an important workload to the Internal Medicine Department.

Table 1 (G-15). Main diagnosis

Diagnosis	Total (percentage)	Traumatology patients
Urinary tract infection	9 (11.7%)	7 (77.8%)
Anemia after surgical intervention	9 (11.7%)	6 (66.7%)
Acute confusional syndrome	8 (10.4%)	3 (37.5%)
Drug adverse effects	8 (10.4%)	4 (50%)
Acute renal failure	6 (7.8%)	2 (33.3%)
Acute bronchitis	5 (6.5%)	5 (100%)
Prosthesis infection	4 (5.2%)	4 (100%)

G-16
INTRAVENOUS FIBRINOLYTIC THERAPY IN ACUTE CEREBRAL ISCHEMIA. EXPERIENCE OF A STROKE UNIT

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Objectives: Our aims was to evaluate the demographics, stroke type, risk factors and outcomes of patients admitted in our stroke unit over the last 36 months, that received intravenous fibrinolytic therapy.

Material and method: Retrospective study lasting 36 months in which we evaluated all patients with ischemic stroke submitted to fibrinolytic therapy with intravenous r-tPA. We evaluated the patient history, risk factors, physical findings, blood tests, CT scan, ECG, echocardiogram and triplex findings and efficacy of intra-hospital procedures such as timings, complications and outcomes.

Results: We studied 50 patients, 26 men (52%) and 24 woman (48%), aged 31 to 80 years old (mean age 67 ± 11.5). Among the major risk factors there was hypertension in 29 patients (58%), atrial fibrillation in 22 patients (44%), dyslipidemia in 10 patients (20%) and diabetes mellitus in 8 patients (16%). The predominant Bamford stroke types were TACI and LACI, each with 21 patients. The mean NIHSS score on admission was 12 ± 4.7; and 7 ± 6.2 on discharge. The average door-to-needle time was 89 ± 33.5 minutes. There were 8 immediate complications following the fibrinolytic administration, and the overall mortality rate was 6% (3 patients). Eight patients were discharged with no neurological deficits.

Discussion: Stroke is a catastrophic event, particularly in the previously active patient who suddenly loses his independence from others. The impact and prevalence of stroke in Portugal it's outstanding: it's the primary direct death cause in our country and important cause of morbidity. Major preventing strategies and campaigns were implemented in the past couple of years to alert the population for the disease. The only approved and effective treatment for stroke is fibrinolytic therapy, increasingly used in stroke units that were recently created in several hospitals throughout the country.

Conclusions: Administration of fibrinolytic therapy in stroke is relatively new in our hospital and to our personnel. Although fifty is still a modest number, we find these results good in overall, when compared to other series. In 74% of patients there was a significant decline in NIHSS following r-tPA and 8 patients left the hospital with no neurological deficits. The risk factors found were similar to those well known in cerebrovascular disease. Intravenous fibrinolytic therapy at the cerebral circulation dose within the first 3 hours of ischemic stroke onset offered substantial benefits for our patients with potentially disabling deficits, and helped to attenuate the burden of stroke in our population.

G-18
DESCRIPTIVE STUDY ON PATIENTS SEEN IN AN INTERNAL MEDICINE DAY CARE UNIT OVER TWO YEARS

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Objectives: To conduct a descriptive and retrospective study about the procedures and treatments undertaken in the Day Care Unit (DCU) of the Internal Medicine Department at García Orcoyen Hospital (Navarra, Spain) during 2010 and 2011. This is a community local hospital (second-level) with 97 beds, which has not got Haematology or Oncology departments.

Material and method: We retrospectively reviewed the medical records of patients seen at the unit during the mentioned period.

Results: During these two years 140 patients attended the DCU. 53% of them were female, and the mean age was 66.9 (minimum age 20, maximum 94). All patients had calculated the Charlson Comorbidity Index (CCI), and 54.1% of them presented a CCI of 3 or greater. The total number of visits was 609, which represents an average of 4.35 visits/patient/year. These patients were referred to the unit from several departments: Internal Medicine (55%), Gastroenterology (26.4%), Haematology (8.6%), and others (10%). The main diagnoses for being referred to the unit were anaemia (62.2%), inflammatory bowel disease (9.3%), osteoporosis (10%), immunodeficiencies (5%), ascitis (5%), and other conditions (8.6%). With regards to the administered treatments, 37.1% of the patients received intravenous iron, 13.6% intravenous iron plus transfusion of red cells concentrates, 10.7% intravenous biologic therapies, 10.7% intravenous bisphosphonates, 10.7% transfusions of hemoderivatives, and 5% intravenous immunoglobulins. 12.2% of the patients underwent different procedures such as paracentesis, thoracocentesis or intravenous steroids administration. Overall, only 5% of the patients presented any side effects to these treatments or procedures.

Discussion: DCUs are a non-conventional kind of hospitalization mainly developed under few departments such as Haematology, Medical Oncology or Nephrology, but seldom used in other medical specialties or in local hospitals with features like ours. Based on our data, we believe DCU is an ideal set up for follow-up, administration of chronic treatments and performance of several therapeutic or diagnostic techniques. Patients with chronic disorders such as anaemia that require parenteral iron and/or periodic transfusions are the ones that predominantly benefit from this kind of service, although administration of biologic therapies such as infliximab is a growing field. If these procedures were not underwent at DCU these patients would require admission in general wards at this hospital or at a bigger hospital, with all the disadvantages it represents.

Conclusions: DCU is an excellent set up for the administration of treatments and performance of basic procedures that otherwise would require hospital admission. We believe that this management approach should be promoted, in order to be known to all the departments that could benefit.

G-19
IMPACT OF USING HOSPITAL-BASED AMBULATORY RESOURCES (HBAR) VERSUS STANDARD MANAGEMENT OF HOSPITALIZED PATIENTS

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Objectives: To assess the impact of using Hospital Based Ambulatory Resources (HBAR), like Hospital at Home (HH), Day Hospital (DH) and Rapid Diagnostic Unit (RDU), versus standard management (diagnostic procedures and treatments are scheduled and performed mainly inside the hospital) in a Spanish Internal Medicine Department from a Third Level Hospital.

Material and method: Retrospective analysis of patients admitted from 1/9/2011 to 15/4/2012 (227 days) in the Internal Medicine Department. Patients were assigned without previous selection among six different medical teams. One of them (Pilot Team, PT) checked the potential use of HaH, DH and/or RDU from the first day of admission. If a patient was suitable for any of them, the resource was used and the patient discharged with ambulatory following. We compare the PT with the remaining group of patients (No Pilot Team, NPT), formed by the other 5 medical teams as a whole, in terms of days of hospitalization. Both groups were homogeneous

due to no previous selection of patients (regular admissions in the department). Patients in both teams were classified depending on the number of days they spent at hospital before discharge (0-5, > 5-10, > 10-15,. > 15-20, > 20-25, > 25-30 days). Patients with more than 30 days were excluded in both groups.

Results: Table 1 shows the distribution of patients into the different stay groups for both PT and NPT.

Discussion: 1. The main difference between the two groups is an 11% more patients for the PT in the shortest period of hospitalization. 2. There was always less percentage of patients in the PT for the rest of the groups. 3. There were no differences in readmissions for both teams. 4. In PT, the safety and traceability of the patients were kept during the ambulatory management.

Conclusions: 1. HBAR can be useful for early discharges without decreasing the quality and safety of assistance. 2. The biggest impact of HBAR occurs in the first 5 days of hospitalization, but they are useful during all the hospitalization process. 3. As HBAR are less expensive than standard hospitalization, without generating more readmissions, and they can even be safer than standard hospitalization (less nosocomial infection, immobilization complications, etc.), we think there should be specialized teams of Hospitalists detecting and managing the suitable patients for these resources. 4. Complex patients, as patients managed by Internists usually are, can benefit from these resources.

Table 1 (G-19). Percentage of patients in PT and NPT depending on total days of hospitalization

Days of stay	% patients PT	% patients NPT	PT-NPT (%)
0-5	27.8	27.8	11.1
5-10	34.7	34.7	-2.3
10-15	16.0	16.0	-4.1
15-20	9.0	9.0	-2.5
20-25	5.1	-5.1	-1.3
25-30	7.4	-7.4	-0.9

G-20
ULTRASOUND EXAMINATIONS BY A POCKET-SIZE ULTRASOUND DEVICE IMPROVES IMPATIENT DIAGNOSIS IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To describe a series of cases in which adding a routine cardiac and abdominal examination by a pocket-size ultrasound device, performed by an internist, improved diagnosis and subsequent medical management of patients admitted to a medical department.

Material and method: Ninety-six patients admitted to our medical department between January and April 2012 underwent cardiac and abdominal screening with a pocket-size ultrasound device with B-mode and colour flow imaging after a principal diagnosis was set. One internist specifically trained performed the examinations. Diagnostic corrections were made and findings were confirmed by high-end echocardiography and examinations at the radiologic department.

Results: The principal diagnosis was changed in 16 patients (17%): 6 with preliminary diagnosis of heart failure (1 loculated pleural effusion, 1 pulmonary fibrosis, 1 focal liver lesion compressing inferior vena cava, 1 lung atelectasis, 2 pneumonia); 2 cases of renal failure interpreted as prerenal resulted in obstructive (full bladder and hydronephrosis); 2 cases of pneumonia resulted in heart failure; 1 case of acute pyelonephritis was diagnosed of renal abscess; 2 cases of supposed cholecystitis resulted in a liver abscess and a gallbladder hydrops; 1 case of constipation in a peritoneal carcinomatosis; 2 pleural effusion were seen to be loculated; and a patient with arm paresthesias was discovered to have a dilated myocardiopathy with low cardiac output. In 18 (18.75%) patients the preliminary diagnosis was verified: 3 cholecystitis, 2 liver abscess, 5 acute heart failure, 4 pneumonia, 3 pleural effusion and 1 pericardial effusion. And finally an additional diagnosis was made in 9 (9.37%) cases: 1 liver cysts, 1 liver hydatidosis, 1 splenomegalia, 2 renal cysts, 1 pleural effusion and 1 severe mitral regurgitation in a patient with SLE. There were no changes in 53 patients (55%).

Discussion: Nowadays, it is challenging to make a correct diagnosis based on medical history, physical examination and goal-directed laboratory tests and imaging procedures. Point-of-care ultrasonography is defined as ultrasonography brought to the patient and performed by the provider in real time, and, as the European Association of Echocardiography published recently, it may serve as a complement to the physical examination and a tool for a fast initial screening. Our study supports this statement, as in more than one of six patients the diagnosis, and thereby the treatment, was significantly corrected when using the pocket ultrasound device. Also, in nearly one of five patients preliminary diagnosis was verified, and an additional diagnosis was made in nearly one of ten. These scanners are quick and easy to use and improve the diagnostic precision. So, we suggest that most medical departments should implement strategies for routinely adding a pocket-size ultrasound examination, and so, internists should be trained for its performance. As limitations, all examinations were performed by the same internist, so our results are mediated by his accuracy.

Conclusions: By adding a pocket-size ultrasound examination of a few minutes to usual care, we were able to correct the diagnosis in many patients admitted to our medical department, which drove to a different treatment strategy without delay. Routinely adding this exploration in medical departments may improve inpatients management.

G-21
FACTORS ASSOCIATED WITH LACK OF RECORDING ALCOHOL USE IN MEDICAL RECORDS OF EUROPEAN MEDICAL INPATIENTS

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Objectives: To investigate factors associated with lack of recording alcohol use in medical inpatients.

Material and method: Point-prevalence study performed in 8 European Countries. Alcohol consumption was evaluated with the AUDIT-C, AUDIT and the SIAC questionnaires. Drinking patterns were determined according to clinical evaluation using ICD-10 criteria. Multivariate analysis was performed with the step-wise logistic-regression model of the SPSS software package 13.0 (SPSS, Chicago).

Results: We reviewed 2112 medical records of 2123 interviewed patients. Alcohol consumption was recorded in 918 (43%), adequate quantitative recording was performed in 143 (7%) patients. Overall, 346 (16%) patients had unhealthy alcohol use and 85 alcohol related

admission, of those 67 (19%) and 18 (21%) had adequate quantitative recording, respectively. Independent patient factors associated with lack of recording of alcohol in medical records were female (OR 1.468; 95%CI: 1.828-0.847), and patients who drank occasionally (OR 1.974; 95%CI: 1.237-3.150). Whereas current drinkers (OR 0.530; 95%CI: 0.330-0.850), harmful drinkers (OR 0.343; 95%CI: 0.144-0.821), dependent (OR 0.321; 95%CI: 0.129-0.798), and former dependent patients (OR 0.637; 95%CI: 0.296-0.1373) and those with an admission alcohol related (OR 0.151; 95%CI: 0.071-0.323) had more frequently alcohol use recorded. Physician factors as knowledge of local prevalence (OR 0.371; 95%CI: 0.240-0.573), and obligatory field in medical records (OR 0.471; 95%CI: 0.320-0.695) were inversely associated with lack of recording. Independent Hospital and setting factors associated with lack of recording were: large hospital (> 600 beds) (OR 2.565; 95%CI: 1.529-4.305), population served mainly rural (OR 1.996; 95%CI: 1.000-3.984), or rural and urban (OR 1.966; 95%CI: 1.447-2.670)), intermediate country prevalence (OR 2.008; 95%CI: 1.370-2.943). Being admitted to a university hospital (OR 0.422; 95%CI: 0.547-0.847), Southern (OR 0.0.261; 95%CI: 0.164-0.414) and Central European countries (OR 0.145 95%CI: 0.088-0.239, intermediate local prevalence (OR 0.649; 95%CI: 0.476-0.885) were inversely associated with lack of recording. There were no significant differences in recording related to age, presence of internal medicine specialists, residents in training or electronic or paper medical files.

Discussion: In accordance with previous studies, alcohol use often goes unrecorded during hospitalization even in patients with AUDs and related disorders. Patients with more severe patterns and with related diseases, and physician knowledge of local prevalence and obligatory field in medical records were associated with alcohol use recording. Still proper identification was hardly ever performed. Female patients, those from rural areas, patients in large hospitals and from Northern Countries had alcohol use less frequently recorded.

Conclusions: Opportunity to detect unhealthy alcohol use and intervene was missed in a substantial number of cases. These data may be helpful when designing strategies to improve alcohol use detection among medical inpatients in Europe.

G-22
QUALITY OF CLINICAL RECORDS IN AN INTERNAL MEDICINE SERVICE

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Objectives: Dr. L. Weed, mentor of the Weed System of medical records, believed "that discipline in training and excellence of patient care can both be achieved with intelligent use of the medical record" (quote). A bibliography search showed a very scarce number of articles published concerning the quality of medical records. For a year, medical records of an Internal Medicine Department were revised and evaluated in order to improve them, and consequently improve patient care.

Material and method: A revision of clinical records was made of 25 files per month, 5 random files chosen in 5 random days of each month, during a period of 12 months, from January 2011 to December 2011, with a total of 300 files. A protocol with a list of quality indicators (QI) was created, with different variables, depending on the moment of the hospitalization. These indicators included the minimal information considered essential in a medical report. At the admission: QI1: personal situation; QI2: family situation; QI3: previous functional state (Karnofsky Performance Status Scale). At the day preceding discharge: QI4: list of medical problems. At the day of discharge: QI5: physical exam at the time of discharge; QI6: functional state at the time of discharge (Karnofsky Performance Status Scale); QI7: exam results during the hospitalization; QI8: predicted prognosis. The information was classified as absent, scarce and adequate or absent and present, depending on the variables. The protocol was presented to the physicians. The three last months before the establishment of the protocol were used as control results. A statistic analysis was made using the Microsoft Office Excel.

Results: An analysis of each of the 12 months was made, comparing the 3 months before the protocol (January to March) with the 9 months after (April to December) in order to evaluate the influence of the protocol in the physicians' daily routine. The results for the QI1 were already satisfying (74-82%) before the protocol and reached 92-96% after its establishment. As for the QI2 and the QI6, both showed a great improvement from 40% to 70% and 14% to 70%, respectively. The QI3, the QI5 and the QI7 showed an elevated compliance, reaching almost 100%. The overall rate of protocol compliance was 67.2%, with the lowest individual percentage being the QI8 (16.3%), followed by the QI4 (37.7%). Concerning the patient's destination on discharge, the medical records of those went to continuous care facilities have the lowest rates of protocol compliance (overall rate: 61.3%; QI8: 6.7%; QI4: 13.3%), followed by the ones sent only to the general practitioner (overall rate: 63.8%; QI8: 11.7%).

Discussion: Results show an improvement in almost all variables after the establishment of the protocol. However, some of the variables, specially the list of medical problems and the prognosis, maintain very low results. This shows that physicians are not yet alert to the importance of the list of medical problems in the approach and decision making regarding a patient. Nor are they well aware of the predicted prognosis that will decide the follow-up according to what is expected from each patient. Furthermore, the quality of the information was shown to change depending on the patient's destination on discharge, with the general practitioner and the continuous care facilities being the most neglected.

Conclusions: The protocol created in the department helped to improve the usual practice and alert to the importance of an accurate medical record. However, physicians are not fully aware of how much a good medical record can improve patient care and medical decision making, hence being a valuable tool in the accomplishment of a better practice. Much work needs to be done in the field of accuracy and quality of medical records, both in their improvement and compliance monitoring, in order to increase efficiency.

G-23
THERAPEUTIC ATTITUDE IN ELDERLY PATIENTS WITH CANCER: EXPERIENCE IN REINA SOFIA HOSPITAL IN TUDELA

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Objectives: According to the National Cancer Institute, 60% of new cancer diagnoses are made in over 65 year people. The clinical status of patients in their 75´s is also very variable, depending on their functional impairment, comorbidity and life expectancy. The attitude to an old patient diagnosed with cancer is determined not only by age but also by these parameters. In addition, limited functional reserves kidney, liver and bone marrow make treatments have major side effects, with the largest number of interactions with other drugs in chronic administration. Oncologist should plan an individualized treatment for each patient according with each

clinical situation, patient and family opinion. The principal aim of this study is to analyze retrospectively the therapeutic attitude taken with patients over 75 diagnosed with cancer in Reina Sofia Hospital in 2010.

Material and method: We analyzed retrospectively all patients with cancer diagnosis who needed oncology treatment in Reina Sofia Hospital in 2010. We reviewed 277 patients and we selected 97 patients who were over 75. We recruited them and followed their evolution for 2 years.

Results: The average age was 80 years old (range 75 - 93). The distribution of cancer diagnosis: 75- 80 year old: 54.6%, 81- 85 years old: 23.7%, 86- 90 years old: 19.6% older than 90 years old: 2.1%. Male 43.3%. Female 56.7%. The most primary tumor location was colorectal carcinoma: 28.9%, digestive non-colorectal cancer: 21.6%, breast cancer: 18.6%, lung cancer: 10.3% and gynecologic cancer: 6.2%. At the diagnosis time, 29.9% of our patients had localized disease, 46.4% locally advanced disease, and 2.7% metastatic disease. The first choice of treatment offered was surgery in 43.3% of the patients, chemotherapy in 19.6%, and basic supportive care only in 12.4% of these cases. 46.3% of our patients received standard treatment, according to the guidelines, and 53.6% of our patients received suboptimal treatment because of doses reduction or not administration of drugs or treatments according to their clinical situation. In addition to age, the causes of selection of suboptimal treatment option were the general condition: 22.7%, comorbidity 15.5%, choice of patient or family: 7.2%. The treatment was well tolerated in 59.8% of patients. 8.2% of them needed doses reduction, and 18.6% needed to stop treatment because of high toxicity. In May 2012, 59 of our 97 patients are alive. Only 38 patients have died. One year survival was 65% and 18 months survival was 45%. The progression of the disease was the most frequent cause of death, (28 patients), sepsis and septic shock were the second cause or death (5 patients) Cardiovascular disease was the third cause (1 stroke, 1 myocardial infarction) and other causes were gastrointestinal bleeding (1 patient) and hip fracture (1 patient) and of unknown cause (2 patients).

Discussion: This study results are similar to other published results about therapeutic attitude in senior patients. These reviews highlight the existence of 2 groups. Half of patients aged 75 and older are functionally "old adults" and can be treated with a standard oncologic approach. The other half however, will need more comprehensive care, including a comprehensive geriatric assessment. The most important physician´s task is to distinguish between these 2 groups of patients: those who will benefit from aggressive treatment and those who will benefit over expectant management and symptomatic care. Our experience shows that if physicians select patients properly one year survival will rise 65% in elderly population.

Conclusions: Traditionally, age is the factor that has limited the therapeutic approach in elderly patients with cancer. Despite the limitations of our small study, results lead to think that at least half of well-selected elderly patients can benefit from active cancer treatment. New clinical trials in this population will help us to select patients properly, improve the efficiency of treatments, and improve their quality of life and survival.

G-24
DIAGNOSTIC LIVER BIOPSY: A RETROSPECTIVE STUDY OF 9 YEARS

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Objectives: Liver biopsy has been the gold standard in liver pathology; however, over the last decade, the virological and serological testing has made the diagnosis of many liver diseases much easier and precise. Objective: retrospective review clinical aspects related to all liver biopsies performed in our department during a 9 year period of time, with a diagnostic purpose.

Material and method: The authors reviewed the clinical data of adult patients admitted to our department between January 2003 and December 2011 and submitted to a diagnostic liver biopsy in an inpatient basis. The indications, technique performed, diagnostic rate, prevalence of diagnoses in diffuse and focal liver disease, contra-indications and complications of the liver biopsies performed were evaluated. The diagnoses suspected in the biopsy note were compared with the diagnoses post-biopsy. The authors also describe and compare the complications occurred with percutaneous transthoracic liver biopsy palpation/percussion-guided and real-time ultrasound-guided. Patients with signs of hepatic decompensation or in which liver biopsy was performed only for assessment of prognosis (disease staging) or to assist in making therapeutic management decisions were excluded.

Results: We included a total of 85 liver biopsies in our study, performed in 45 males and 40 females, with a median age of 59.8 years. In 4 cases the biopsy was repeated since it was unconclusive due to lack of tissue sample or poor quality of the fixation method. In 85 patients, 87 diagnoses were carried out before biopsy. 40.2% of the diagnoses were confirmed by biopsy but in 27.6%, 25.3% and 6.9% the diagnosis was specified, changed or unconclusive, respectively. Diagnostic rentability in all biopsies performed was therefore 93.9%. A total of 14 new diagnoses were added after biopsy, resulting in 95 final diagnoses. The most common indications for biopsy in diffuse liver disease were hepatitis C, alcoholic liver disease and auto-immune liver disease and for focal liver disease were secondary liver malignancy of unknown (SLMUO) or suspected origin (SLMSO) and primary liver malignancy. Liver biopsy was able to determine the primary tumour in 61.5% cases of SLMUO. All patients were tested prior to the biopsy for impaired hemostasis and all had INR < 1.4 and platelet count > 60,000/mL. The rate of complications was 9.4% and they consisted only of local pain which was successfully treated with analgesics and lasted for a period of time < 24 h. There were no differences in rate of complications between the methods used for liver biopsy.

Discussion: Liver biopsy was able to help confirm and rule out diagnoses in the majority of cases and was also able to establish new diagnoses that were not suspected. In cases of secondary liver malignancy of unsuspected origin, liver biopsy allowed to determine the primary tumour with a high success rate and affect drastically prognosis and management of patients. In our series, liver biopsy had a high diagnostic rate and few complications when no contra-indications were present, similarly to other studies. Also there were no severe complications which make liver biopsy a safe and useful diagnostic tool.

Conclusions: Even in the era of advanced virological, immunological and molecular genetic testing, liver biopsy remains a useful and safe tool leading to changes in patient management. Liver biopsy contributes with very high specificity to the diagnosis of malignancy in focal liver disease and detects non-malignant disease. Improving diagnostic practice requires more development in immunocytochemistry and information on outcomes.

G-25
ENDOTHELIAL DYSFUNCTION AND PSYCHOVEGETATIVE DISORDERS IN PATIENTS WITH CALCULOUS CHOLESYSTITIS BEFORE AND AFTER CHOLESYSTECTOMY

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Objectives: To characterize existence and expressiveness of endothelial dysfunction in chronic calculous cholesystitis (CCH)

patiens with a psychovegetative syndrome (PVS) in the perioperative period of cholesystectomy (HE) and to estimate possibility of correction of the revealed disorders by antidepressant tianeptin.

Material and method: At performance of work 90 patients with chronic calculous cholesystitis are surveyed. Anxious and depressive violations were revealed at 67.7% of patients (61 people). These patients also made group of supervision. To all patients carrying out a HE in surgical office was planned. In research it is included: men - 2 (3.3%), women – 59 (96.7%). Middle age of patients made 50 ± 10.0 years. Patients were divided into 2 groups. 30 patients of 1 group (main) received tianeptin (firm Servier, France) in a dose of 37.5 mg/day in 3 weeks prior to operation and in 3 weeks after HE. The group of comparison consisted of 31 patients, but without antidepressant. For research psychoemotional status the hospital scale of anxiety and a depression (HADS), a scale of Spilberger and Vayne's questionnaires were used. For an assessment of a functional condition of endotelium used definition of desquamated endotheliocytes (DE) in blood (Hladovec, 1978), nitrogen oxide (NO) level and a method of an endothelium dependent vasodilatation (EDVD).

Results: The psychovegetative syndrome (SVD) was revealed at 87% of patients in 3 weeks prior to HE. The correlation analysis showed existence of authentic direct interrelation between quantity of DE and age of patients, degree of PVS and return interrelation of these indicators with NO level and EDVD percent. Antidepressive therapy led to authentic improvement of the mental and vegetative status and endothelial function at patients in the postoperative period. Increase of level of NO from 10.94 ± 2.46 to 21.82 ± 14.78 in μmol/l ($p = 0.02$), reduction of quantity of DE from 7.46 ± 3.02 to 3.61 ± 1.86×104/l ($p < 0.0001$) in the main group in 3 weeks after operation is noted. EDVD increased from 4.23% to 43.85% ($p = 0.0006$) after therapy in 1 group. In group of comparison after HE aggravation of endothelial dysfunction in parallel with PVS progressing was noted.

Discussion: Thus, the interrelation between aggravation of a psychovegetative syndrome on the one hand and deterioration of a functional condition of endothelium with another at CCH patients in the perioperative period is revealed. Impact on the psychoemotional status of patients by means of tianeptine made positive impact, including on correction of endothelial dysfunction.

Conclusions: Psychovegetative disorders and the endothelial dysfunction, available at chronic calculous cholesystitis patients before operation, progress in the postoperative period. Application of antidepressant tianeptin allows to reduce frequency and expressiveness of emotional and vegetative disorders after operation, and also leads to reduction of endothelial dysfunction.

G-26
CONTINUITY OF CARE: FIVE MONTH EXPERIENCE OF ON-LINE CONSULT BETWEEN PRIMARY CARE AND INTERNAL MEDICINE

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Objectives: To describe the implementation and pilot experience of on-line consultation between the Primary Care Centers affiliated to Hospital Universitario La Paz (Community of Madrid) and the Internal Medicine Service of this reference hospital.

Material and method: From November 2011 the Department of Internal Medicine in Hospital La Paz (Tertiary Hospital with 1,328 beds) made available to primary care specialists a program of on-line consultation, previously in place for its use between different hospital specialists. The project was presented in each of the Primary Care Centers belonging to Hospital Universitario La Paz, providing healthcare to a population (urban and rural) of 600,000 people. During the visit, was explained how to use the software tool of on-line consultation. It was reminded the portfolio of outpatient services available. This system allows the consultant to generate a question to his internist, having a system of allocation of the primary care center from which makes the identification of the patient, the consultant, the date and time when the consult was done and the reason for the consult. Furthermore, as is done through the computer program of clinical data management are also available analytical data, diagnostic imaging tests and pathology. The query and response are recorded as part of the patient's medical history.

Results: The incorporation of the different Primary Care Centers, has been gradual as presentation visit were made. From November 2011 until April 2012 (5 months) has responded to a total of 263 consultations. The response time is one business day. The average number of responses per patient, is also one with a range between 1 and 4 responses. The issues raised in the consultants could be grouped into: -Questions on diagnose or guidance in the management; -Management for not accessible from Primary Care in the citation vehiculization monographic consultations inpatients already diagnosed; -Streamlining access for patients with potentially serious pathologies to query Rapid Assessment; -Coordination and facilitation of admission, avoiding the pass through the emergency department; -Planning for treatments or diagnostic tests from the Day Hospital of Internal Medicine.

Conclusions: On-line consult between Primary Care and Internal Medicine help to improve the quality of care provided to our patients, bringing together professionals from different levels of care, primary care and specialized hospital care. It solves diagnostic or therapeutic doubts and have been avoided displacements of patients to the hospital and referrals to the emergency department. The use of online technology makes available questions and answers immediately, as part of the patient's medical record and available to others who might participate in patient care. We believe that this pilot experience has been helpful for both the patient and medical specialists involved in their care, and improves the use of health resources.

G-27
MALNUTRITION IN OUR MEDICAL PATIENTS. ARE THERE CONSEQUENCES?

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Objectives: To detect malnutrition in our patients. To assess the influence of malnutrition in mortality, readmissions and inpatient length of stay.

Material and method: We carried out a prospective study that enclosed 202 consecutives patients admitted to the internal medicine wards, between June and December 2011. Being reviewed in May 2012. At admission: 1. The body mass index (BMI) was measured, therefore the height and weight were needed. The length of the forearm and a chair to weight were used in case the patient stayed in bed. 2. A biochemical screening that included total proteins, cholesterol and lynfocytes was performed. 3. If the biochemical screening detected malnutrition, a red bell appeared in the computer system, when the patient was visualized. Then the short mininutritional assessment test (MNA), in patients with 65

years or older or the malnutrition universal tool (must), if younger than 65 years, were done. 4. If moderate or severe malnutrition was confirmed, a 3-day written control of daily food intake was executed. Adjustments in diet were taken, and oral supplements or enteral or parenteral feeding were then given if necessary.

Results: A total of 202 patients were initially comprised, 4 of which were excluded because of incomplete data. The 198 patients left were analized with the SPSS software 18.0. The proportion of males 125 was higher than females 73. The media of age was 62 (± 19) years. The median length of hospital stay was 14 days (9-21). The more frequent diagnosis were: sepsis (64%), cancer (21%) and cirrhosis (6%). 43 patients died: 14 (7%) during the hospital stay and 29 (9.5%) after discharge. The causes of death are coincident with the diagnosis during the hospital stay, in the case of sepsis is the respiratory one the most prevalent. 79 patients had to be readmitted usually once or twice. Except for one patient that was readmitted 8 times with problems related to alcoholism. The biochemical screening detected malnutrition in 42 patients (21%): 34 with medium risk and 8 with high risk. When the must or MNA screening in these patients was done: 37 (18.7%) were malnourished, 14 moderate and 23 severe malnutrition. More males (25) than females (12). 9 of these patients had a daily food intake control during 3 days of 50% or less or could not eat at all because of medical prescription and had intravenously saline solutions. 8 of the 9 patients were malnourished or at risk of malnutrition. 7 of the 8 patients received supplements. Mortality during hospital stay was significantly higher in malnourished patients (21%) compared to patients without malnutrition (3%), $p < 0.001$. No significant differences were detected between patients with and without malnutrition in the number of hospital readmission, length of stay, mortality after discharge, age, sex, or BMI.

Discussion: The prevalence of malnutrition in the general population is 22%, but in older persons with comorbidity admitted to hospitals it is close to 50%. We reported a prevalence of 21% in patients admitted to internal medicine wards. Possibly the malnutrition screening test used is not sensitive enough. When comparing both groups of patients malnourished and without malnutrition, we confirmed that malnourished patients have a higher short-term mortality than those without malnutrition as expected. No higher rates of hospital readmission, length of stay, long-term mortality or influence of age, sex, BMI could be detected. The nutritional subjective global assessment method that includes physical examination findings and the clinician´s judgment could be a good option.

Conclusions: The prevalence of malnutrition reported in our study was 21%. The malnutrition biochemical screening test used probably underestimates the levels of malnutrition present in our medical patients. A more sensitive screening test should be implemented. A higher short-term mortality rate was observed in malnourished patients compared to patients without malnutrition. No higher rates of hospital readmission, length of stay or long-term mortality was registered.

G-28
MEDICATION DOSING IN PATIENTS WITH RENAL IMPAIRMENT AT ACUTE MEDICAL ADMISSIONS

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Objectives: The growing prevalence of hypertension and diabetes, as well as population aging, has increased progressively the appearance of renal chronic disease. The aim of the present study was to detect renal failure at admission among hospitalized patients and to assess if medications that require dosage adjustment for patients with renal disease were correctly prescribed.

Material and method: A cross-sectional study was performed including all hospitalized patients at the Internal Medicine Department at eight different times (one month apart). Kidney function was assessed by estimation of glomerular filtration rate (eGFR) using Modification of Diet in Renal Disease (MDRD) equation. Renal insufficiency was diagnosed when eGFR was minor to 60 ml/min/1.73 m^2. Analyzed variables were sex, age, serum creatinine levels at admission, eGFR at admission, renal insufficiency and, among patients with renal impairment, number of prescribed drugs, if medications that require dosage adjustment were prescribed, if excessive doses of medications were prescribed, number of dosage errors and which drugs were involved. Continuous variables were expressed as average ± standard deviation (median and interquartile range in asymmetric variables). Nominal variables were reported as frequencies and percentages.

Results: 301 patients were included (133 women, 44.2%), with a median of age of 73 years (60, 80). The median of serum creatinine levels was 1.12 mg/dl (0.9, 1.5). The average of eGFR was 60.60; 26.05 ml/min/1.73 m^2. 151 patients (50.2%) had renal insufficiency at admission (43 of them had an eGFR minor to 30 ml/min/1.73 m^2). Among patients with renal impairment the median of prescribed drugs per patient was 8 (6.10), prescribed medications that require dosage adjustment were present in 115 cases (76.5%), excessive doses of medications were detected in 48 cases (32%) and a total of 63 dosage errors were detected (median of dosage errors: 1 per patient, maximum of 4 errors in one patient).). Drugs involved in dosage errors were, in order of frequency: enoxaparin 28 cases (18.7%), antibiotics 13 (8.7%), antiemetics 11 (7.3%), spironolactone 5 (3.3%), digoxin 2 (1.3%) and other isolated errors (ranitidine, memantine, anti-retroviral agent). Most cases of dosage errors (32, 66.7%) were detected among patients with eGFR minor to 30 ml/min/1.73 m^2.

Discussion: A high prevalence of renal failure at acute medical admission was found. Medications that require dosage adjustment were prescribed in most cases. Excessive doses of medications were a frequent problem, detected in 1 each 3 patients. The most frequent dosage error was excessive dose of enoxaparin, which can cause a serious problem in patient safety, as it can lead to bleeding complications.

Conclusions: Renal insufficiency is a common problem among hospitalized patients at the Internal Medicine Department. There is a rather high risk of dosage errors due to excessive doses of medications, which can endanger the inpatient safety. Reducing medication errors is critical for medication safety. Awareness of dosage errors is a key step to enhance patient safety.

G-30
DIABETIC FOOT PATIENTS' 3 AND 5 YEAR FOLLOW UP: ULCER OCCURRENCE, AMPUTATION AND MORTALITY

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Objectives: Diabetes mellitus is one of the most frequent metabolic disorders, with a prevalence of 13.9% in the Oporto district in Portugal (our referral area). Diabetic foot is one of the major complications of this disease and causes a considerable burden in health care and patient well-being. Literature reports high rates of morbi-mortality associated with this condition. Therefore we considered essential to estimate the risk at 3 and 5 years of ulcer occurrence (1st or re-ulceration), amputation and death in a population of patients followed in our Diabetic Foot Outpatient Clinic as well as determine their causes and predictive variables.

Material and method: A retrospective cohort study is being conducted including all patients recurring to our Diabetic Foot

Outpatient Clinic from January 2002 until September 2012. Patients will be followed for at least 3 years or death. Those lost to follow-up will be excluded, as well as those with missing data apart from tunning fork exam (record only started in the middle of 2008). The following variables will be collected from clinical file: age; gender; scholar degree; diabetes type, treatment and duration; A1C hemoglobin (HbA1C); retinopathy; nephropathy; cardiovascular disease; stroke; smoking habits; physical disability and visual acuity; previous foot ulcer and/or amputation; diabetic foot characterization related variables. Death causes will be analysed. Association between outcomes' and the collected variables will be assessed.

Results: At baseline, patients (N = 392 so far) had a mean age of 64 (17-94) years; diabetes duration of 16 (1-64) years; HbA1C of 7.7% (5.2-15.3%). 48% were male; 83% had basic school level or less; 97% were type 2 diabetics; 41% insulin treated; 50% had retinopathy, 15% myocardial infarction, 18% stroke, 16% nephropathy; 20% were smokers (present or past); 42% physical disabled; 41% visual disabled; 39% presented peripheral vascular disease (PVD); 60% neuropathy symptoms; 49% altered Semmes-Weinstein monofilament sensation (SWMS) and 34% altered tunning fork sensation (TFS); 31% previous DFU history and 12% present at baseline; 14% had previous lower extremity amputation (LEA). So far, patients have a mean follow-up of 57 (1-123) months; 25% died; 36% patients have 3 years follow-up and 39% for at least 5 years. During the entire follow-up period: 42% developed a DFU, 19% recurred, 11% had LEA and 3% re-LEA. In univariate analysis, variables associated with DFU occurrence were male gender, retinopathy, visual impairment, scholar degree, previous DFU history, previous LEA, physical disability, onychomycosis, foot deformity, PVD, altered SWMS, altered TFS, HbA1C; with recurrence retinopathy, previous DFU history, previous LEA, foot deformity, PVD, altered SWMS, altered TFS; with LEA male gender, smoking, previous DFU history, previous LEA, PVD; and with death male gender, myocardial infarction, stroke, nephropathy, scholar degree, physical disability, PVD, age. Multivariate and more detailed analysis will be done in September.

Discussion: Our data reveals a quite high rate of DFU development (42%), justified by our high risk context (43% had previous DFU). Conversely, there was a low rate of DFU recurrence and LEA. We observed that no variable was associated with re-LEA. Moreover, different outcomes seem to share several common predictive variables such as male gender, retinopathy, scholar degree, previous DFU or LEA, physical disability and PVD.

Conclusions: It was reported that diabetics have high comorbidity rates and should be adequately followed and stratified by their risk of comorbidities development. With these findings we will attempt to create a model with the same core variables for the prediction of all the assessed outcomes: DFU, LEA and death.

G-31
QUALITY OF CARE FOR MYOCARDIAL INFARCTION AT NONACADEMIC HOSPITALS. LONG-TERM DATA FROM REGISTRIES OF MYOCARDIAL INFARCTION IN THE CZECH REPUBLIC

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Objectives: The most important task of our work is to assess quality of care provided to myocardial infarction (MI) patients in internal medicine departments of nonacademic hospitals. Furthermore we decided to evaluate utilization of evidence-based treatments and identify subpopulations of these patients at high risk of insufficient therapy.

Material and method: The data originated from MI registries in nonacademic hospitals from 2003-2010. In total, 7,324 consecutive MI cases were included in the analysis. None of the participating hospitals had catheterisation facilities. Interventional treatment (if indicated) was provided in another hospital. All participating internal medicine departments provided a comparable level of acute cardiac care and a similar spectrum of diagnostic and therapeutic procedures; therefore, these hospitals were considered to be an adequate sample of non-PCI hospitals in the Czech Republic. We analyzed the medical charts of all patients (acute therapy within the first 24 hours) and reviewed discharge letters (pharmacotherapy recommended post discharge).

Results: In total, 7,324 consecutive MI cases were included in the analysis. Acute pharmacotherapy within the first 24 hours after admission was as follows: aspirin (oral or i.v.) was used in 89.2% cases, clopidogrel in 60.3%, unfractionated, low molecular weight heparin or fondaparinux in 94.1%, beta-blocker (oral or i.v.) in 59.2%, and statins in 56.9%. All recommended drugs were used in 33.6%. The number of the recommended medications used within the first 24 hours was significantly influenced by age and gender; older patients (> 65 years) and women had a lower chance of receiving more drugs ($p = 0.001$ and $p = 0.003$). The presence of diabetes had an adverse influence on the quality of pharmacotherapy with borderline statistical significance ($p = 0.050$). Reperfusion therapy (transfer for primary PCI or thrombolytic therapy) was used in 71.8% of STEMI cases, transfer for primary PCI was conducted in 70.2%. Reperfusion treatment in patients with STEMI was less often used in older patients ($p = 0.033$), patients with diabetes ($p = 0.001$) and those with a higher Killip class ($p < 0.001$). In total, 703 of 7,324 patients died in the hospital (9.6%). At discharge we found the following incidence of prescribed drugs: aspirin in 90.1% cases, clopidogrel in 62.8%, beta-blockers in 81.4%, ACE inhibitors and/or ARBs in 78.5%, and statins in 81.3% of cases. All recommended drugs were prescribed in 44.3%. The quality of therapy prescribed at discharge was significantly lower in older patients ($p < 0.001$) and in women ($p = 0.001$). Patients with hypertension and hyperlipidaemia had a higher chance of receiving more of the recommended pharmacological agents within the first 24 hours and also at discharge ($p < 0.001$ and $p < 0.001$). The presence of diabetes or a history of MI did not decrease the adjusted quality of discharge pharmacotherapy.

Conclusions: We revealed underutilization of evidence-based treatments within the first 24 hours after admission especially in case of statins and clopidogrel. Therapy prescribed at discharge met the criteria for quality comprehensive therapy more frequently. Quality of treatment provided in the acute stage and at discharge was significantly lower in older patients and in women. The underutilization of various medical therapies and medical procedures (such as cardiac catheterization) among diabetic patients and women is consistent with data from other registries that evaluated MI patients. Patients with a history of hypertension and hyperlipidaemia received more comprehensive acute and discharge pharmacotherapy. Generally, quality of treatment in patients with MI at nonacademic hospitals has increased substantially in recent years. However, opportunities to improve care should be considered.

G-32
UNRECOGNIZED RENAL INSUFFICIENCY AND CHEMOTHERAPY-ASSOCIATED ADVERSE EFFECTS AMONG BREAST CANCER PATIENTS

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Objectives: Several studies have demonstrated a 50% prevalence of unrecognized renal insufficiency (RI) (i.e. decreased estimated glomerular filtration rate (eGFR) in subjects with normal serum creatinine) among cancer patients. This has also been shown in patients with breast cancer. Antimicrobial therapy is the main field of internal medicine that widely utilizes eGFR in dose adjustment, while there is a paucity of evidence in other fields. Since cyclophosphamide is excreted renally, we retrospectively assessed whether there was an increased frequency of chemotherapy-associated adverse effects among breast cancer patients with unrecognized RI, treated with the AC protocol (cyclophosphamide and doxorubicin).

Material and method: We retrospectively accessed the computerized records of patients diagnosed with adenocarcinoma of breast and treated with the AC protocol, for 4 planned courses every 21 days, at our institute's oncology unit from 1/2005 to 8/2009. We only included those with a normal serum creatinine (< 1.4 mg/dl). Patients with insufficient data or treated with prophylactic granulocyte colony stimulating factors (GCSF), were excluded. The primary outcome was the occurrence of any chemotherapy-associated adverse effect during treatment or three weeks after the final course. This was defined as a composite of the following: neutropenic fever with hospital admission, a delay in chemotherapy treatment for a medical reason, dose adjustment due to toxicity of the chemotherapeutic drugs, and the use of GCSF. The Cockcroft-Gault formula was used to estimate the GFR. The patients were divided into two eGFR groups: eGFR > 75 ml/min/1.73 m^2 and eGFR < 75 ml/min/1.73 m^2. The incidence of the primary outcome was compared between the two eGFR groups.

Results: 218 subjects underwent screening, of which 95 patients fulfilled our study criteria. The mean (± SD) eGFR was 80.1 ± 19.1 ml/min/1.73 m^2. 53 patients (56%) had an eGFR of at least 75 ml/min/1.73 m^2 whereas 42 (44%) had an eGFR of less than 75 ml/min/1.73 m^2 (i.e. unrecognized RI). Patients in the eGFR < 75 group were older, had a lower body weight and higher creatinine levels at study entry (0.9 mg/dl vs 0.8 mg/dl, p < 0.001). 49 (52%) patients experienced the primary outcome of at least one chemotherapy-associated adverse effect. The incidence of these adverse effects was higher in patients with eGFR < 75 compared to those with eGFR > 75 (64% vs 42%, OR 5.29, 95%CI 2.10-13.33) and remained statistically significant after adjustment for age, BMI and initial doses of chemotherapeutic drugs (OR 3.56, 95%CI 1.08-11.67). Neutropenic fever, dose delay and dose adjustment as separate outcomes, occurred more frequently in the eGFR < 75 group but lost statistical significance after adjustment. Hemoglobin levels gradually decreased in both groups throughout the treatment period, and were significantly lower in the eGFR < 75 group than in the eGFR > 75 group, 3 weeks after the final cycle of treatment (10.9 vs 11.5, p = 0.017).

Discussion: Our results confirm previous findings that unrecognized RI is a common entity among breast cancer patients undergoing chemotherapy. To our knowledge, this in the first study evaluating the influence of unrecognized RI in on the adverse effects of chemotherapy. We have shown an association between lower eGFR and increased adverse effects of chemotherapeutic drugs among breast cancer patients with normal creatinine, treated with the AC protocol. Whether eGFR-guided dose adjustment leads to more favorable treatment outcomes, needs to be established.

Conclusions: Unrecognized RI increases the risk of chemotherapy-associated adverse effects among breast cancer patients with normal serum creatinine, treated with the AC protocol. Further studies are needed to determine whether unrecognized RI influences treatment outcomes in other disciplines of internal medicine.

G-33
INTENSIVE FOLLOW-UP IN COPD TO IMPROVE ADHERENCE TO TREATMENT

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Objectives: We aimed to provide a reference physician and his telephone number making easier physician-patient relationship by telephone to fix a quick meeting. In that way, we encourage patients to submit the prescribed treatment, to answer questions about problems would come up and to improve non-pharmacological strategies.

Material and method: We asked Medical Record Department of our hospital to provide us all the 227 COPD patients discharged between July and December 2010. 117 patients were randomly assigned to monthly telephonic following during 6 months (Group Follow up) and 110 patients to Group Control. Each patient was followed by the same internist during all the period. In the Group Follow up, 27 patients were excluded (9 deads, 9 wrong phone number, 4 refused to participate, 3 were non-COPD, 2 repeated records), thus we included 90 patients. In the Group Control, 10 of them were excluded for similar reasons. At the end of the following period, 100 patients in Group Control were asked about their

Table 1 (G-33). Basal characteristics

Characteristic	Dates
Age	Mean 71.5 years (SD 12)
Sex (M/F)	64/26
BMI (kg/m2)	Mean 27 (SD 4)
Written treatment	92% (82 p)
Chronic oxygen therapy	35% (32 p)
30 min walking daily	62% (56 p)

Table 2 (G-33). Pharmacologic treatment

LAMA + LABA + ICS	LABA	LAMA	LAMA + LABA	Antibiotic rounds
90%	4%	4%	2%	None 53%. Yes 47% (24-1r, 12-2r, 4-3r, 1-5r, 1-6r)

pharmacologic and non-pharmacologic treatment, lifestyle and admissions.

Results: In the table below, we show basal characteristics and treatment in Group Follow up. We also recorded information about admissions in the previous 6 months and readmissions during follow-up period, which is shown in another poster. Finally, we made an enquiry about satisfaction with the following results: 60% of patients were satisfied, 20% very satisfied, 10% excellent idea, 1% no satisfied and 9% did not answer.

Discussion: Follow up of discharged COPD patients by Hospitalists is considered a good clinical practice to improve patients´ management answering their questions, avoid comorbility and assure quality in medical practice.

Conclusions: A personalized monthly phone call during six months of discharged COPD patients gives a transitional care and a coherent follow up and continuity of cares. Most of patients are satisfied with the intervention, asking us about therapy, relapses, clinical visits and motivated in order to improve non-pharmacological measures and treatment adherence.

G-34
RECOGNITION AND INITIAL MANAGEMENT OF SEPTIC PATIENTS IN A DISTRICT GENERAL HOSPITAL. A JUNIOR DOCTOR PATIENT SAFETY INTERVENTION

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Objectives: Assess recognition and management of sepsis at Kings Mill Hospital (KMH). Develop simple strategies to improve this in line with the 'Surviving Sepsis' campaign.

Material and method: Sepsis is a major cause of mortality. Implementing a care 'bundle', such as the 'Sepsis Six', can reduce mortality rates. The records of 142 patients receiving intravenous antibiotics in KMH's emergency assessment unit (EAU) between January and May 2012 were analysed for compliance with the 'Sepsis Six'. Baseline data (dataset 1) was collected. Stickers detailing sepsis (two or more signs of systemic inflammatory response syndrome (SIRS) with a source of infection) and the 'Sepsis Six' were applied to EAU notes folders. Post-intervention data (dataset 2) was collected and analysed. Posters and computer banners with the same information were then added in the emergency department (ED), where all patients were initially assessed, prior to collection of the last dataset (dataset 3).

Results: Data was normally distributed and analysed using a t-test (Table).

Discussion: Patients with two or more signs of SIRS were consistently recognised and managed faster. Following ED interventions, such patients were managed significantly quicker than earlier datasets. This suggests ED based interventions had the greatest impact. For these patients time from diagnosis to prescription of antibiotics reduced significantly, as did time from admission to administration of antibiotics. Time from prescription to administration of antibiotics did not significantly improve. This is primarily a nursing task and suggests the interventions were most successful at improving doctors' awareness of sepsis.

Conclusions: Management of sepsis remains poor and non-compliant with evidence based care bundles. Simple prompts in the acute care setting significantly improved doctors' recognition and prompt treatment of sepsis. This could be further developed in other clinical settings and adapted for other professionals.

G-36
ONLINE CONSULTING AS NEW MODEL OF DISTANCE SPECIALIZED CARE

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Objectives: Creation of online consultancies in different medical and surgical specialties to facilitate access and communication between Primary Care physicians (PC) and Specialized Care physicians (SC) for better and faster response, avoiding referrals and unnecessary journeys for patients.

Material and method: Medical Management designed a project whose target was the improvement of quality of care; and to facilitate the continuum of care and patient accessibility, creating email addresses for different medical specialties. The response is fast -within 48 hours,-at different medical consultations created by PC physicians. After the creation of a generic email address for each medical service, we send the information to AP. Each e-mail address has a responsible specialist. In the past 2 years 23 email addresses have been created over 10 medical and surgical hospital services: Neurology, Cardiology, Internal Medicine, Endocrinology, Pneumology, Nephrology, Urology, Rheumatology, Gastroenterology and Infectious diseases.

Results: Data are presented on the total activity of 2011, a total of 833 e-mails, representing an increase from 2010. The internal medicine department received 183 emails (145 of the Rapid Assessment, 20 of the Geriatric, 18 of Vascular Risk Unit), Neurology 174 (96 were general Neurology and 78 of the Dementia Unit), Endocrinology received 140, Cardiology 120 (20 for general Cardiology and 100 of arrhythmia) Pneumology 93,Nephrology 46, Gastroenterology 38, Rheumatology 16 and Urology 23. We emphasise the resolution in the Nephrology department: 24 of the 46 consultations could be resolved without needing patient referral. Pneumology resolved 35% of cases and the Rapid Assessment Unit 21% with only communication between physicians via e-mail.

Conclusions: 1. It is an activity of great interest for the convenience that it represents for the PC doctor, with a quick and effective response from AE, avoiding visits or delays in making clinical/or therapeutic decisions for the patients. 2. It is an underutilized tool, because although these types of consultations are growing, the number of doctors who use them is low. 3. Importance of streamlining/prioritization of visits and complementary explorations in patients who may have potentially serious diseases.

Table 1 (G-34). Two-tailed t-test comparing times between dataset 1 and 3 in patients with two or more signs of SIRS

Parameter	Mean of Dataset 1 (mins)	Mean of Dataset 3 (mins)	T value	p value	0.95 Confidence interval	0.99 Confidence interval
Triage to Doctor clerking	108	98	+0.39	0.70	± 38.9	± 52.9
Diagnosis of sepsis to antibiotic prescription	134	23	+2.42	0.04	± 96.5	± 129.3
Antibiotic prescription to administration	64	72	-0.33	0.74	± 51.7	± 69.3
Arrival to antibiotic administration	330	211	+2.40	0.02	± 100.2	± 132.5

G-37
IMPLEMENTATION OF A NUTRITIONAL SCREENING METHOD, AT A TEACHING HOSPITAL. DIFFICULTIES AND ACHIEVEMENTS

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Objectives: To establish a nutritional screening method, in all patients at hospital admission. Starting from the internal medicine wards, in order to gradually expand it to all hospitalized patients.

Material and method: Prospective study with 330 patients, 133 patients excluded. Method: 1. Measurement of the body mass index (BMI). 2. Biochemical nutritional screening: albumin or total proteins, lynfocytes and cholesterol. 3. Patients with medium and high malnutrition risk underwent a second screening: short MNA (65 years or older), or must (younger than 65 years). If moderate or severe malnutrition is confirmed, a written control of daily food intake during 3 days was done. Adjustments in the diet were carried out, and supplements were given if necessary.

Results: First 15 days: 49 patients. Malnutrition in 33 (67%), moderate in 25 (51%) and severe in 8 (16%). Must/MNA done in 8 out of 33 patients. A higher sensitivity to detect malnutrition was observed when the albumin was used. We continued using total proteins because of saving costs. These 49 patients were excluded. 3 months: 79 patients were excluded. 60 patients had completed the protocol. Malnutrition in 14 out of 60 patients (23%), moderate in 10 (17%), and severe in 4 (7%). 6 months: 202 patients, 5 excluded. Malnutrition in 42 out of 198 patients (21%), moderate in 34 (17%) and severe in 8 (4%).

Discussion: The prevalence of intrahospitalary malnutrition in Spain is 30-50%. An early identification of malnutrition allows a prompt nutritional intervention with short-term benefits. In our study the prevalence of malnutrition in the wards of internal medicine was 21%. A more sensitive method is required. The total number of patients included in our study was 330, 133 of which were eliminated because of incomplete data. It took time to persuade the hospital staff to follow the protocol.

Conclusions: The prevalence of malnutrition in the wards of internal medicine is 21%, despite of the age and comorbidity of our patients. The implementation of a new method is difficult. The adequate training and acceptance by the hospital involved staff is needed. Interdisciplinar coordination is essential.

G-38
DETECTION OF THE RISK OF MALNUTRITION IN THE DEPARTMENT OF INTERNAL MEDICINE: CROSS SECTIONAL STUDY

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Objectives: 1. To assess the risk of malnutrition in patients in our Internal Medicine Department 2. To assess which patients require the evaluation of Nutrition Department and/or artificial nutrition support.

Material and method: We did a prospective observational cross-sectional study. 76 patients admitted to the Internal Medicine Department have been studied, 6 without sufficient data. 35 (50%) were female and 35 (50%) were male. Mean age was 73.2 ± 17.3 years (ranging from 23 to 93), days in hospital at the time of the assessment was 6.78 ± 5.76 days (ranging from 1 to 27). We assessed the risk of malnutrition with the parameters used by the CONUT® program (Table 1), clasifiying them in patients without risk (0-1), low (2-4), moderate (5-8) and high risk (9-12). Demographic, clinical and nutritional characteristics of each nutritional group has been evaluated.

Results: 36 patients (51.4%) had low risk of malnutrition, 10 (14.3%) had moderate risk and 3 (4.3%) had high risk. Weight was registered on 10.5% of the patients. No patients with high or moderate risk had registered weight, evaluation by Nutrition Department or artificial nutritional support. 31.5% of patients had a history of Type 2 Diabetes and 31% had low hemoglobin (< 12.1 g/dL). Demographic, clinical and analytical characteristics are detailed in Table 2.

Discussion: Malnutrition is a common, potentially serious, and under-diagnosed condition among elderly patients in Internal Medicine Departments. The early detection and treatment has been shown to improve hospitalisation outcomes in medical elderly patients, decreasing mortality, morbidity and length of hospital stay. These findings emphasize the importance of detecting and treating malnutrition, for what we can use biochemical parameters and/or a computer application like the CONUT® program. In addition, we want to emphasize the importance of recording the weight and adapt diet to each patient.

Conclusions: The detection of malnutrition with biochemical parameters and/or a computer application like the CONUT® program can be a useful tool in our hospital ward. The record of the weight and adaptation of diet is essential among the hospitalized patients in Internal Medicine Departments.

Table 1 (G-38). Malnutrition risk calculated by Conut programme

Parameters	Without deficit	Mild deficit	Moderate deficit	Severe deficit
Albumine (points)	≥ 3.5 (0)	3.00-3.49 (2)	2.50-2.99 (4)	< 2.50 (6)
Total lymphocytes (points)	≥ 1,600 (0)	1,200-1,599 (1)	800-1,199 (2)	< 100 (3)
Total cholesterol (points)	≥ 180 (0)	140-179 (1)	100-179 (2)	< 100 (3)

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Table 2 (G-38). Results

Risk	Number of patients	Hb	Lymphos	Cholest	Album
High	3 (10)	10.5	875.6	99	2.53
Moderate	10 (5.3)	11.64	873.2	147.9	3.05
Low	57 (1.9)	12.2	1,602.95	121	3.6
Without data	6	-	-	-	-
Mean		12.02	1,467.57	165.6	3.65
SD		1.92	1,290.94	44.47	0.53

G-40
NEUROENDOCRINE TUMORS: CLINICAL EXPERIENCE IN THE LAST 10 YEARS UNIVERSITY HOSPITAL OF MOSTOLES, MADRID

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Objectives: Gastroenteropancreatic neuroendocrine tumors are rare neoplasms which can occur anywhere in the gastrointestinal tract. Depending on their size, anatomical location and upon whether or not metastasis has occurred, these tumors can show different clinical patterns and have different prognoses. The aim of this review is to show the characteristics of gastroenteropancreatic neuroendocrine tumors attended in our institution in the last 10 years.

Material and method: Descriptive, retrospective and transversal study about 28 patients diagnosed of gastrointestinal neuroendocrine tumors during the period 2006-2011 and recorded by the Department of Pathology in our hospital. Data regarding demographic, clinical, anatomopathological and diagnostic variables were collected.

Results: We identified 28 patients diagnosed with gastrointestinal neuroendocrine tumor, the mean age was 53.21 years and the male-female rate was 1.33. The most common symptom was abdominal pain(n = 8), follow by rectorrhagia (n = 5) and anemia (n = 5). Clinical manifestations are not different from standard adenocarcinoma, in colon and rectum. Most tumors were well differentiated (78.6%) and localized (67.86%). The most affected organs were gastric (n = 7), rectum (n = 7) and apendicular (n = 6). Small intestine (66.6% metastatic) and pancreatic site (100% metastatic), and a poor degree of tumor cell differentiation are the major negative prognostic factors for having metastases. The most common treatment was surgical resection. Any of our patients developed carcinoid syndrome.

Conclusions: Early diagnosis is essential for treating these lesions and improving the patients prognoses, but it requires a high degree of suspicion and confirmation by special testing. The localization and the degree of hystological differentiation seem to be the main prognostic factors. Surgical treatment is the first choice, but other medical therapy can be helpful for patients who have unresectable disease.

G-41
NUTRITIONAL STATE IN PATIENTS ADMITTED AT INTERNAL MEDICINE SERVICE

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Objectives: The nutritional state is very important, mainly in patients admitted in Internal Medicine Service, but it is rare that this evaluation appears in the clinical histories of the patients. We analyzed the clinical histories and reports of patients admitted in our hospital at Internal Medicine Service during six months with the diagnosis of malnutrition in their discharging reports.

Material and method: We analyzed the discharging reports of 61 patients admitted in Internal Medicine in our hospital.

Results: We analyzed the clinical histories of a total of 61 patients, 29 males (47.5%) and 32 females (52.3%), with global half age of 80.54 years (range 46 to 101 years), the average age of males was 79.86 years and females 81.16 years. The half stay was 12.4 days. The medium level of proteins was 5.4 g/dl (5.38 g/dl males-5.41 females). The medium level of albumin was 2.51 g/dl (2.55 g/dl males-2.47 females). 34.43% of patients received protein supplements and 9.84% received enteral nutrition with nasogastric tube. They were carried out dietary recommendations to 93.45% of patients.

Conclusions: An evaluation of the nutritional state is very important in old patients because it is very probably that they suffer malnutrition. In our study, less the half of patients received treatment for that problem.

G-42
IS FOLLOW-UP OF GASTRIC ULCERS REQUIRED?

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Objectives: To evaluate assessment of patients diagnosed of gastric ulcer in our Hospital.

Material and method: We designed a descriptive retrospective case series study, about patients diagnosed of gastric ulcer by endoscopy in our Hospital from January to December 2009. We collected epidemiological data (age, sex) and endoscopic data (endoscopy instruction, ulcer location, size ulcer, execution of biopsy to discard malignancy and Helicobacter pylori infection and upper endoscopy after two months).

Results: 3199 upper endoscopy were performed during 2009. 124 gastric ulcers were observed, more frequently in patients older than 65 years old (59% older than 65, 40.7% 65 or less). 65.9% were men. The main application reason for upper-endoscopy were digestive bleeding (60.2%), secondly abdominal pain (13.8%) and anemia (8.1%). More than half of ulcers cases were located in antrum, 31.7% in gastric body, and 12% in fundus. 26% presented a diameter bigger than 1 cm and 39% had appearance of malignancy. Biopsies were taken in 66.6% of subjects, histology were positive for adenocarcinoma in 13.8%. Biopsies for testing Helicobacter Pylori were taken in less than half of cases (41.5%) and 18.7% were positive. After two months follow-up gastroscopy was performed in only 25% of cases, biopsy was taken to 21%, and 6 new cases (4.9%) of neoplasia was detected.

Discussion: Gastric ulcer is frequent in patients older than 65 years, in our study, 59% of cases were in that group of age. Elderly patients present higher rate of digestive bleeding (33.8% vs 66.2% p = 0.05) and deeper ulcers (25% vs 75% p = 0.05), probably due to the associated use of drugs. Only in 41.5% of patients Helicobacter Pylori was tested despite being a treatable ulcer cause. Only 25% of patients were reviewed two months later, 6 new adenocarcinoma cases were observed. Adenocarcinoma incidence during de ulcer studying (diagnostic control endoscopy) was 17.9%. For this reason in this group of subject a correct follow-up of gastric ulcer including control gastroscopy at two months should be performed to make an early diagnosis of gastric cancer. Adenocarcinoma was not significantly associated to age (p = 0.15), neither to ulcer location (p = 0.53). It was only associated to ulcer size bigger than 1 cm (p = 0.05).

Conclusions: Follow-up of gastric ulcers, including biopsies of borders and upper-endoscopy after two months is advisable due to the remarkable rate of malignancy. It is important to stress the low number of border ulcer biopsies rate, either the Helicobacter pylori testing.

G-43
DRUG INTERACTIONS IN INTERNAL MEDICINE

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Objectives: Assessment of the usefulness of different databases for the identification of drug interactions, and their degree of agreement (and Lexi-Interact Medinteract). We propose that the appropriate use of existing databases allow us adequate management of patients by the medical staff, minimizing the risk of adverse reactions resulting from misuse of existing drugs to decrease the likelihood of drug interactions. Also take the opportunity to review the profile of patients discharged from Internal Medicine service and the existence of potential drug interactions.

Material and method: Discharge reports of patients admitted to all the different medical service HCSC Internal Medicine in 2009. The total number of discharges from the Internal Medicine Department in 2009 was 1,023. Sample size required for accuracy of 5% and a confidence interval of 95% with p < 0.001: 280. 300 randomly selected patients discharged in 2009 For the analysis of potential drug interactions using two databases accessible via on-line (Lexi-Interact; Medinteract).

Results: We reviewed 346 discharge reports of which 41 were excluded for the death of the patient during admission, leaving 305 that were analyzable, 55.1% were males and 44.9% women, median age was 72.42 years (IQR 77-85), minimum age of 15 years and maximum of 99 years. The median length of stay was 13.27 days (IQR 10-16) with a minimum of 1 day to 90. The median number of drugs prescribed at discharge was 6, minimum 1 and maximum of 19, the most prescribed drug was omeprazole (6.7%) followed by furosemide (5%). In the analysis with Lexi-Interact drug interactions were identified in 220 cases analyzed, the 1775 drug pairs analyzed type interaction was observed like A: 1.27%, B:7.05%, C: 61.61%, D: 7.83% and X: 2.5%. In the case of Medi-interact interaction was observed in 207 cases, showing rate by 6.2% and 41.3% severe to moderate type. We found a significant relationship with readmission in those patients with drug interactions in treatment when analyzed by using Medi-interact (p 0.039).

Discussion: The frequency of drug interactions found in our study was relatively high (Lexi-Interact: 72.1% and Medi-interact: 67.9%). Being even higher than the margin of the literature ranges from 1.9 per 1000 patient-years in a study in British health area and 60% found in a Swiss hospital study. Perhaps due to the characteristics of our population, it is elderly with multiple pathologies. The drugs involved are usually of normal management by the clinician and, possibly, in many cases have taken appropriate steps. It should be noted the increased likelihood of readmission for patients who have some type of interaction in their treatment.

Conclusions: The main factor associated with drug interactions is the number of drugs prescribed at discharge so you should try to minimize the amount of drugs. The use of readily available programs for physicians (Lexi-Interact, Medi-Interact) could improve the quality of care and that a large number of drugs complicate patient management.

G-44
REVIEW OF THE FIRST STEPS OF A PREFERENTIAL CARE CLINIC

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Objectives: Preferential Care Clinics (PCC) are an alternative way of diagnosing patients who may suffer from a severe condition, but whose clinical status allows an outpatient process. We wanted to analyze the characteristics of the patients attended at the beginning of our Clinic and the most frequently diagnosed conditions, in order to improve the quality of our PCC.

Material and method: The PCC started working in our hospital in July 2010. It comprises two offices attended by two Internal Medicine specialists and residents of our specialty. One nurse and one administrative assistant complete the team. It works from Monday to Friday; from 8 am to 3 pm. Patients can be submitted from the emergency department, Primary Care or from any other specialist. Many tests can be prescribed from the PCC, and are performed with a preferential waiting list. We analyzed the patients attended one weekday (Wednesday) during the first year of work.

Results: A total of 50 patients were received, 24 of them were males (48%), with a mean age of 61.42 years (SD 17.95). Most of the patients were submitted from the emergency department (94% of them) and the mean delay time to the first visit was 3.74 days (SD 3.49). The mean time to the end of the study was 22.22 days (SD 18.62). The reason for consultation was always included in one of the eight available protocols, the most common being constitutional syndrome (38%), anemia and fever (20% each). In order to get a quick diagnosis, different tests were performed. The most frequently performed were abdominal ultrasound and CT with 27 patients (54%), followed by microbiology studies (either serologies or cultures) (50%), colonoscopy (48%), upper endoscopy (46%) and biopsy (24%). The final diagnostic was in 11 patients a malign neoplastic process (22%). In 9 patients (18%), the only finding was anemia with no signs of malignancy. 7 patients (14%) suffered from a psychiatric disorder, 6 patients (12%) from some infectious specific disease, 5 patients (10%) were suspected a viral undetermined infection and 4 patients (8%) suffered from a benign tumour. At the end of the study, 29 patients (58%) were submitted to a different outpatient department for the follow-up. 8 patients (16%) required being admitted to the hospital and 4 patients (8%) were programmed for surgery. 16% of patients required no further assistance after the diagnosis. Only one patient dies during the study.

Discussion: In the past few years, alternative ways of patient assistance have developed. One of them is the PDC. The objective of these units is the quick diagnosis of potential severe conditions, without the expenses coming from an admittance to the hospital. During the time of this study, the main stay time in the Internal Medicine Department of our hospital was 7.1 days. As we studied 50 patients who, otherwise, should have been admitted to get a diagnosis, the saving was 355 days of admittance, with the resultant monetary save. Compared to other quick diagnostic units, such as rapid diagnosis units or immediate health care clinics, our PDC had a longer delay in diagnosis. This can be due to the fact that the doctors in charge of the Clinic vary every weekday, thus leading to a weekly follow-up (although this could change depending on the test findings).

Conclusions: PDC is an efficient alternative to hospital admittance. Potentially severe conditions must be quickly discarded or diagnosed, in order to start treatment as soon as possible.-In order to improve our unit, we should prioritize the follow-up of potential malignant disorders and reduce the time between visits.

G-45
THE ROLE OF BLOOD CULTURES IN MEDICAL WARDS, COSTS OR BENEFITS?

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Objectives: Microbiological tests, although of great importance for the diagnosis, and more appropriate treatment of various infectious diseases, have, most of the times, negative results; being unable to lead to diagnosis or therapeutic adjustment, leaving behind only the costs not the benefits. With this review the authors want to know what are the real results of the blood cultures (for aerobic agents) they are doing to their patients, and the costs for a positive result driving the improvement of treatment. We focused on the rentability of blood cultures (aerobic agents) in medical ward's every day patient assumed not to have criteria to higher level of care (intermediate care unit or critical care unit). More than establish a validated standard we want to adjust the requests to our reality, knowing the specific limitations of this resource in our specific workplace.

Material and method: We review all the admissions (from emergency department or outpatient consultations, excluding intra-hospital transfers) during one year (July 2011-June 2012) asking for the number of blood cultures for aerobic agents, the percentage of positive results, the kind of agents isolated and the costs associated. We have determined the duration of the survey in 12 months, to exclude seasonal fluctuations occurring during the year.

Results: The partial results (being the survey still runnig by the time of abstract submission) are disappointing. In the already processed data we documented more than 45% requests for all admissions with the criteria expressed, and despite not expecting high results, we are finding about 10% bacterial isolations. Leaving a cost of more than 350 euros per positive test. Since most of the isolations are of multi-sensitive bacteria, which means patients received microbiologically correct and effective empirical antibiotic therapy, the costs are much further increased when considering a useful positive test.

Discussion: Microbiological tests will always be of great value in clinical practice, however their rentability depend on several factors. Technical issues like collecting, transporting and processing can always be improved as the decision to ask for the test. The probability to find a bacteriemic patient is higher, the more severe the condition is. Establishing severity criteria to ask for cultures will optimize results, leaving the often done, infection = blood cultures, behind.

Conclusions: Worldwide there is an urgent need to optimize resources, and 45% can't be the probability of request at admission, of blood culture for any given patient; even more if only 10% will be positive. Knowing this data must help us to find the way to have positive results more frequently or, simply, stopping having the negative ones. This work pretends to be a wakeup call, for us to see, in our own workplaces, if the benefit worth the cost.

G-46
ELECTRONIC WHITEBOARDS: FIRST STEPS TOWARDS EUROPEAN STANDARDS FOR ACUTE MEDICAL ADMISSIONS?

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Objectives: 1. To establish sustainable use of reliable key performance indicators (KPIs) to improve efficiency and patient care through service management and re-design. 2. To establish the use of an electronic whiteboard system to support the use of KPIs. 3. To determine performance benchmarks for acute Emergency Medical admissions.

Material and method: An Intranet-based electronic-Whiteboard database was used to capture data from the point of referral throughout the patient journey. Data collated and analysed by the Information Department are presented in spreadsheet format on a weekly basis. Data includes times of referral and admission, medical review, presenting conditions and discharges. Performance is analysed over time to identify trends and areas of poor performance.

Results: 4 out of the 9 Key Performance Indicators are regularly monitored, 3 partially measured, and 2 not measured electronically. We have established the sustainable use of the electronic whiteboard. It is used by physicians and nurses to organise and prioritise work. Staffing numbers have been matched to patient flow and waiting times have been reduced by 54% to an average of 40 minutes.

Discussion: By comparing practice of acute medical admissions across Europe one would aim to maintain and improve local acute services to patients. This suggests requirement for European benchmark standards for measuring KPIs for all medical admissions, enabling trusts across Europe to track how well they match up to these standards. Collaborative use of KPIs for improvement priorities could improve quality of acute patient care and reduce cost. Features of the electronic whiteboard such as usability and interactivity promote sustainability through enhanced clinician engagement.

Conclusions: Measuring KPIs for acute admission services reflect the quality of patient care being given and encourages continuous improvement. Implementation of European benchmarks could enable comparison of standards between units and may result in enhanced performance of acute care across Europe.

G-47
IMPACT OF FOCUSED CARDIAC ULTRASOUND IN THE MANAGEMENT OF FIRST EPISODE OF ATRIAL FIBRILLATION

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Objectives: The aim of this study was to assess changes in clinical management (medical or surgical treatment and/or admission to Hospital) with the use of focused cardiac ultrasound performed by internists in patients with a first episode of atrial fibrillation.

Material and method: We performed a prospective observational study at an Emergency Department (ED) of a University affiliated Hospital from July 2011 to march 2012. We included all patients who presented with a first episode of atrial fibrillation. Inclusion criteria were: age older than 18 years old and the absence of a previously known heart disease. The attendant physician performed a routinary evaluation of these patients performing and registering anamnesis, clinical examination, electrocardiogram and chest X-ray results. We also registered if the physician suspected any significant cardiac alteration with these data and the proposed treatment following ESC guidelines for the management of atrial fibrillation. After the initial evaluation an internist with previous training in focused cardiac ultrasound evaluated subjective left and right ventricular ejection fraction, the presence of significant pericardial effusion and the diameter of left atrium, left ventricle, interventricular septum and ascending aorta. All the echocardiographic results were confirmed with a subsequent

cardiologist performed echocardiogram. We recorded all discrepancies between the attending physician suspected diagnosis and proposed management (treatment and decision about admission to Hospital) and the internist proposal using focused cardiac ultrasound information.

Results: 92 patients were included during the study period. Mean age was 68 ± 15 years. 54 patients (60%) were male. There were 8 patients (8.7%) with no suspected underlying significant structural heart disease by the attending physician who showed significant structural alterations on the focused cardiac ultrasound (5 patients with severe left ventricular dysfunction, one patient with an acute severe right ventricular dysfunction, one patient with a severe acute mitral regurgitation and one patient with an ascending aortic dissection). Attending physicians suspected underlying significant cardiopathy in 8 patients (8.7%) which was discarded by focused cardiac ultrasound. There was a significant change in medical treatment in 13 (14%) patients and urgent surgical treatment was ordered after focused ultrasound in 2 (2%) patients. In 14 patients (15.2%) admission to Hospital decision was changed due to focused cardiac ultrasound information.

Discussion: Focused cardiac ultrasound is a noninvasive technique which can be performed by internists. It is capable of providing useful and rapid information about heart structure and function. Echocardiographic aspects that can be evaluated by a non-cardiologist with a short training period and good accuracy are well defined. A first episode of atrial fibrillation is usually evaluated in the ED by non-cardiologists. There are no previous reports which analyze the impact of this tool in the evaluation of this clinical situation.

Conclusions: Systematic use of focused cardiac ultrasound by non-cardiologists in the evaluation of patients with a first episode of atrial fibrillation modifies treatment or admission decision in approximately 15% of patients.

G-48
IMPROVEMENT IN PAIN MANAGEMENT AFTER ON-SITE EDUCATIONAL INTERVENTION: RESULTS FROM THE DOMINO STUDY BY THE ITALIAN SCIENTIFIC SOCIETY FADOI

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Objectives: Internal Medicine (IM) patients are very frequently elderly, with multiple concomitant diseases and therapies. Chronic pain is a relevant clinical component of many medical diseases in elderly and complex patients, but few real-world data are available on its frequency and management. Aims of our study were to assess the prevalence of pain in IM, and to evaluate the possible effects on pain management of a standardized educational program.

Material and method: The study was performed in 26 Units of IM in Italy, with a three-step design. In step A each centre retrospectively reviewed the hospital charts of the last 100 consecutive patients hospitalized for any cause and discharged. General data on patients' characteristics, and more specific information on the possible presence of chronic pain and its management were collected. The educational program (step B) was conducted by means of the so-called outreach visits, a face-to-face meeting between an expert teacher external to the Unit and the staff (physicians and nurses) of the IM centre. The contents of the intervention by the teacher had been previously defined by a central Scientific Committee, on the basis of international guidelines and major deviations from best medical practice detected in step A. Around 6 months following the outreach visit, each centre had to retrospectively review the hospital charts of the last 100 consecutive patients discharged (step C), in a way specular to step A.

Results: A total of 5,200 medical charts were analyzed in the study. The general characteristics of study populations in step A and C were very similar, around 70% of patients had an age > 70 years, and three or more diseases. Chronic clinically relevant pain (defined by explicit citation in hospital charts and/or by the presence of a specific treatment) was documented in 37.5% of the patients. In more than half of cases pain was of osteo-muscular origin, and in around 20% it was related to cancer. After the educational intervention, the intensity of pain was assessed by using validated scales in a higher percentage of patients (47.8% in step A vs 77.4% in step C, p value = 0.0001), and it was more frequently monitored during hospitalization. Appropriate qualitative definition of pain (pathogenesis, duration etc.) increased in step C (75.4% vs 62.7%, p value = 0.0001). If compared to step A, at the end of step C it has been detected a 16% increase in the use of strong opioids.

Discussion: Chronic pain is a frequent issue in IM, since it affects 4 out of 10 in-hospital patients. According to our large real-world study, to implement a standardized one-shot educational program may persistently improve the attitude of physicians and nurses towards the characterization and management of chronic pain.

Conclusions: Due to the relevant burden in IM, and its impact on quality of life of the patients, chronic pain requires specific attention by the health personnel. It is plausible that a more aggressive educational intervention than we did could further improve the attitude towards the optimal management of pain in medically ill in-hospital patients.

G-49
EFFECTS OF A STANDARDIZED EDUCATIONAL PROGRAM ON THE MANAGEMENT OF TYPE 2 DIABETES IN MEDICAL INPATIENTS THE DIAMOND STUDY FROM THE SCIENTIFIC SOCIETY FADOI

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Objectives: Although glucose levels to pursue in chronic diabetes treatment are not yet well defined, clinical evidence suggests that appropriate blood glucose management during hospitalization improves clinical outcomes of medical patients with type 2 diabetes (T2D). Aim of the study was to collect information about the management of T2D patients hospitalized for any cause before and after a standardized educational intervention on health professionals in Internal Medicine Units (IMU).

Material and method: The study was performed in 53 Italy IMU with a three-step design. In step A, each IMU retrospectively reviewed the hospital charts of the last 30 consecutive patients hospitalized for any cause except for stroke or acute myocardial infarction, and with a known diagnosis of T2D. The educational program (step B), was carried out by an outreach visits, a face-to-

face meeting between an expert teacher external to the IMU and the staff (physicians and nurses) of the IMU. The contents of the intervention by the teacher had been previously defined by the FADOI DIAMOND Steering Committee, on the basis of international guidelines and major deviations from best medical practice detected in step A. Around 6 months after the outreach visit, a retrospective survey, specular to step A, was conducted in each IMU (step C).

Results: A total of 3,167 patients were recruited (1,588 step A, 1,579 step C). General characteristics of patients analyzed in step A and step C were superimposable. From step A to C, it has been showed a significant decline of missing anthropometric data collected in medical records, namely body weight and height (54.1% vs 74.9%, p < 0.0001). After the educational program, a higher percentage of patients (62.8% vs 48.2%, p < 0.0001) had in-hospital measurement of glycated hemoglobin. More patients had in-hospital changes of treatment for diabetes in step C (77%) vs step A (72.6%). After educational program less IMU (47.2% vs 52.8%, p = 0.0017) used a sliding scale to control blood glucose levels. Indications for diet were delivered to 53.5% vs 71.1% of patients (p < 0.0001) during step A and C, respectively.

Discussion: The improvement of clinical outcomes in hospitalized diabetic patients is known to be strictly related to an appropriate blood glucose control. Our study was not designed to assess the impact of educational intervention on patient outcomes, but the trend towards more intensive monitoring and therapeutic intervention could be of clinical relevance.

Conclusions: In our large, real-world study, a standardized one-shot educational program led to significant and persistent changes in the management of hospitalized patients with known T2D. It is plausible that a more aggressive educational intervention than we did, could further improve the attitude towards the optimal management of diabetes in hospitalized patients.

G-50
HEART FAILURE TREATED IN A SHORT STAY UNIT

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Objectives: to analyse the demographic and clinical features of patients admitted with Heart Failure (HF) into a Short Stay Unit (SSU) in a general Internal Medicine Service. Length of stay and readmission-related factors are also investigated.

Material and method: Descriptive, retrospective design performed on patients admitted into a SSU because of decompensated HF. 260 clinical reports between February 2011 and February 2012 were reviewed, along with results from complementary tests when these were not available. Cuantitaive variables are expressed as mean ± SD. Categorical non-parametrical variables were compared using non-parametric tests. Time to readmission was assessed with a Kaplan Meier analysis.

Results: 73 (28%) episodes computed as HF at discharge. Basal characteristics are shown on Table 1. The primary symptom on presentation was dyspnea (30%). Transthoracic echocardiography was performed in 19 (26%) of the patients, finding low ejection fraction in only 2 (2.7%) patients. Mean NYHA score was 2.3 ± 0.54, with 18 (24.7%) patients at a basal NYHA score of III or worse. Mean length of stay was 3.08 ± 1.37 days. Only 5 patients (6.8%) stayed for longer than 5 days (SSU failure). 13 (17%), and 6 (8.2%) needed readmission during the next 30 and 14 days. No patient was readmitted within 3 days after discharge. Neither fulfilling pluripathology (PP) criteria nor having some degree of dependence showed any association with readmission or SSU failure. Yugular ingurgitation on admission was associated with readmission at 30 days (p = 0.022, Plot 2). No patient died during the first 60 days after discharge.

Discussion: In this short cohort, complexity or senescence did not affect length of stay or readmission rate. This, along with the extremely low mortality at 30 days opens new ways of managing prevalent and complex problems that often crowd conventional hospitalization units. The cohort size might limit interpretation of the afore-mentioned data. Lack of comparison with conventional hospitalisation can also limit these results.

Conclusions: Most patients with decompensated HF can be discharged after 3 days of treatment in a SSU, even with a high rate of complex comorbidities. SSU is a safe, efficient way of managing chronic diseases such as HF. Dependence or PP did not affect readmission rates. Basic exploratory signs of HF could help identify patients in risk of readmission. Randomised controlled trials could help establish the best treatment setting for decompensated HF.

G-51
HF_MIRAP CONSULTATION: EVALUATION OF TEN NEW PATIENTS DAILY IN AFTERNOON TIME (PART 2, CLINICAL PROFILE)

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Objectives: Describe the characteristics of patients attended in the consultation of internal medicine department of the Hospital de Fuenlabrada, designed to value daily 10 new patients (30 minutes per patient, 2 to 4 days per week depending on the month) in afternoon time, to provide coordination with primary care.

Material and method: Cross-sectional study of 1,140 new patients attended from January to December 2011 at a consultation of internal medicine department in afternoon time. Statistics: %, mean + sd. Comparison: ANOVA, chi^2.

Results: The overall mean age was 50 ± 18 years (9 to 96), higher in women (56% 51 ± 18 years) than in men (44%, 48 ± 18 years p = 0.02). There are 158 reasons for consultation. The most frequent were: hypertension (11%), anemia (9%), weight loss (8%), adenopathy study (4%), asthenia (4%), abdominal pain (3%), genetic study/family study (3%), hyperferritinemia (3%) and fever (3%). There were 163 final diagnoses. The more frequent were: without disease (21%), essential hypertension (14%), iron deficiency anemia (5%), no pathology of IM (4%), weight loss determined (3%), anxiety/depression (2.4%), non-pathological lymphadenopathy (2%), HIV infection (2%), dyslipidemia (2%), hemochromatosis (1%), fatty liver

Table 1 (G-50)

N = 73	Woman	Age	Dependence	Pluripathology	Pluripath. Categories	NYHA	Length of stay
No. (%); Mean ± -SD;	40	80.1 ± 7.53	24	55	2.15 ± 0.98	2.3 ± 0.54	3.08 ± 1.37
(Range)	(54.8%)	(77-85)	(32.9%)	(75.3%)	(2-3)	(2-3)	(2-4)

(1%), thromboembolic disease (1%). In 4.5% of the cases does not match the diagnoses with the initial suspicion. Requested test on 65.5% of patients, mean 2 ± 1 test. Type of test: analytical (41%), radiology (31%), digestive endoscopy (7%), echocardiogram (5%) and ambulatory blood pressure monitoring (5%). Requiring hospitalization 1.5% to advance the study and 1% for acute disease. Evolution and resolution of cases: 26% discharge in first visit, 24% in second visit, 5% in third visit and 1% in the fourth visit. Follow-up 20% of patients, loss 20% and outstanding results 4%. The resolution time was 65 ± 8 days (640 patients, 56%) and decreases to 49 days at early discharges (1st and 2nd visits). There is no difference between the most common diseases. Delayed diagnosis and assessment of delays in testing in 16% cases (digestive endoscopy, echocardiography, brain scan and EMG). Discharge consultation for: primary care (73%), medical specialty (15%), IM monographic (6%) and surgical specialty (4%).

Conclusions: Low mean age (50 years), lower in men. The main causes of consult were hypertension (11%), anemia (9%), weight loss (8%) and lymph node study (4%). Final diagnosis: 21% without disease, 15% essential hypertension, 5% iron deficiency anemia and 4% not internal medicine pathology. In 4.5% of the cases does not match the diagnoses with the initial suspicion Tests were requested in 65% of patients. Mean of 2 tests. Delay tests in 16% cases (endoscopies, echocardiogram, brain scan and EMG). Finally, 50% are resolved between the 1st and 2nd visits with a time resolution of 49 days.

G-52
UNINTENTIONAL WEIGHT LOSS IN AN OUTPATIENT INTERNAL MEDICINE CONSULTATION

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Objectives: Unintentional weight loss (UWL) is not uncommon and is associated with increased morbidity and mortality rates being often a harbinger of underlying systemic disease. Common causes of UWL are i. e. cancer, gastrointestinal disorders, infections, medications, and psychiatric disorders. Sometimes the cause remains as idiopathic alter accurate diagnosis testing. Frequently patients with UWL used to be admitted to an Internal Medicine Department to complete diagnosis. Our aim is to report the clinical and analytical features of patients with UWL studied in an outpatient Internal Medicine consultation and identify predicting factors of eventually non-malignant or malignant diagnosis.

Material and method: This is an observational, retrospective study of 145 patients referred to an Internal Medicine consultation because of UWL in 9 months. All of them were older than 18 years. Variables included were demographics, toxic habits, amount of weight loss and time, physical assessment, analytical parameters, radiological and endoscopic studies, final diagnosis, the need of hospital admission and its cause. Statistical analyses include frequencies, correlation tests and non-parametric studies when needed using SPSS vs 17 for Windows.

Results: Mean age was 70 years old, median 76. Men were 73, women 72. In 30.3% alcohol and in 24.8% tobacco consumption was reported. Mean weight loss was 7.19 ± 4.61 kg in 4.67 ± 4.97 months. Physical assessment was positive in 30 patients. Anaemia was reported in 37.2% patients, renal failure in 15.9%, cholestasis in 18.6%, positive fecal occult blood test in 10.3%. Tumour markers were positive in 55.9% patients being the most frequent CEA-II, Ca 19.9 and TPS. Mean ESR was 32.92 mm/h, LDH 300.45 UI/L, and CRP 32.19 mg/dl. Useful complementary explorations were: chest radiography 10.3%, abdominal ultrasonography 15.9%, CT scanning 37.9%, upper gastrointestinal endoscopy 17.2% and colonoscopy 13.1%. The most frequent causes of UWL were cancer (45), benign gastrointestinal (43), idiopathic (15), psychiatric disorders (14), and infectious diseases (8). In 21 (14.50%) patients there was no need to complete study in the in-hospital setting. There was positive correlation between an organic cause and the duration of symptoms, physical exploration, anaemia, renal impairment, cholestasis, tumour markers, abnormal CT scan, upper gastrointestinal endoscopy and colonoscopy as well as with the need of hospital admission to complete studies. By sex there were statistical differences in alcohol and tobacco consumption, positive tumour markers, ESR, CRP and abnormal chest radiography and CT scan, being higher in men. Regarding to diagnosis of malignancy, there were statistical association with duration of symptoms, haemoglobin, tumour markers, ESR, CRP, abnormalities in chest radiography, CT scan, upper gastrointestinal endoscopy, colonoscopy, and with the need of hospital admission.

Conclusions: 1. In our study, most of patients were elderly who lost more than 7 kg in almost 5 months. Less than a third had a previous toxic habit. 2. Only 20% had a positive physical assessment but barely 4 out of 10 had anaemia. 3. A half of patients had an elevated level of tumour markers mainly related to digestive malignancies. 4. CT scanning was the most useful exploration, followed by abdominal ultrasonography and endoscopic studies. 5. Almost a third of our patients had cancer or a benign gastrointestinal disease. There was no need of in-hospital setting in the majority of them.

G-53
USEFULNESS OF CARCINOEMBRYONIC ANTIGEN IN THE STAGING OF RECTAL CANCER

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Objectives: To correlate preoperative carcinoembryonic antigen (CEA) levels and the presence of distant metastases in rectal cancer.

Material and method: Retrospective cohort study (2010-2011) in a tertiary care hospital. After excluding patients without TNM staging and without preoperative CEA levels, 150 patients with rectal cancer were included and stratified in Group 1 (with distant metastases) and Group 2 (without distant metastases). Preoperative CEA levels were measured and compared between the two groups. CEA < 4.5 ng/ml was the cut-point between elevated and normal levels. Results were statistically analyzed with chi square and OR. Significance was reached at $p < 0.05$.

Results: Seventy-two percent were men, with a mean age 70 years old (range 33-92), all had adenocarcinoma. One hundred and six (70.7%) of patients were in TNM stage I-III and 44 (29.3%) in stage IV (metastasic disease). The most common metastases sites were: liver (31.8%), liver and lungs (25%), lungs (13.6%) and other (15.9%). Seventy-nine percent of patients in the Group 1 had elevated CEA levels, meanwhile 28% in the Group 2 had elevated CEA levels. Eighty-nine percent of patients with CEA within normal levels had no metastasis. Statistical association between Group 1 and preoperative CEA levels above 4.5 ng/ml was found (chi square 33.25, $p < 0.05$, OR = 9.85, CI [4.2-22.9]).

Discussion: The CEA is an oncofetal glycoprotein that appears overexpressed in colon and rectal adenocarcinoma, whose use has been clearly established to monitor response to systemic therapy and to assess the rate of recurrence. It is not recommended as a screening method for colorectal cancer, and its usefulness in the

staging and treatment strategy is not clearly established yet. However, we found a strong association between high preoperative CEA levels and advanced metastasic disease.

Conclusions: We consider useful the determination of preoperative CEA levels in patients with rectal cancer for initial assessment of metastasic disease. Further research is needed to check the impact of these findings in the context of preoperatory assessment.

G-54
CHRONIC KIDNEY DISEASE AND HEPATITIS C IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Objectives: Many population studies have provided evidence of chronic kidney disease (CKD) and hepatitis C (HCV) in patients with type 2 diabetes. Association of CKD and hepatitis C cause increased morbidity and mortality in patients with type 2 diabetes. Of the mechanisms underlying the correlation between diabetes and HCV can be mentioned: insulin resistance and hyperinsulinemia, decreased insulin secretion or deficiency, hepatic steatosis, inflammation and proinflammatory cytokines, autoimmune destruction of pancreatic β cells. The aim of this study was to investigate the prevalence and severity of reduced estimated glomerular filtration rate (eGFR) in patients with diabetes and HCV.

Material and method: Included in the study were 179 consecutive patients with type 2 diabetes and HCV, hospitalized in INDNBM "N.C. Paulescu" during 01.01-31.12.2011. The average duration of evolution of diabetes was 6.3 years. We evaluated kidney disease or by proteinuria (+ on urine dipstick) or by calculating the estimated glomerular filtration rate (eGFR) < 60 ml/min/1.73 m^2. Estimated glomerular filtration rates (eGFRs) were calculated by Cockroft-Gault and Modification of Diet in Renal Disease equations (MDRD). The characteristics of cases with CKD and controls were compared in analysis and in multivariate logistic regression models with stepwise selection.

Results: CKD was present in 86 patients (48%). Proteinuria was present in 93 patients (52%). 61 (34.1%) of 179 enrolled patients had normal eGFRs stage 1, above 90 ml/min per 1.73 m. Stage 2 renal dysfunction (eGFR between 60 and 89 ml/min per 1.73 m^2) was present in 65 patients (36.3%), 28 patients (15.6%) had stage 3 dysfunction (eGFR between 30 and 59 ml/min per 1.73 m^2), 16 patients (8.9%) had stage 4 dysfunction (eGFR between 15 and 29 ml/min per 1.73 m^2), and 9 patients (5%) stage 5 (eGFR < 15 or dialysis-dependent). Factors predictive of renal dysfunction in multivariate analysis included female sex [odds ratio (OR) 1.46, 95% confidence interval (1.07-2.009), p = 0.01], BMI less than 20 [OR 1.3 (1.1-3.2), p = 0.04], hypertension [OR 1.98 (1.01-3.9), p = 0.03], elevated gamma-glutamyl transpeptidase over 110 UI/L [OR 1.3 (1.04-1.8), p = 0.03], and hepatic steatosis [OR 3.4 (1.5-7.6), p = 0.002].

Conclusions: Was noticed that patients with diabetes and HCV presents high prevalence of renal dysfunction. The presence of normal serum creatinine in patients with HCV do not provide normal kidney function. Therefore screening the renal disease in patients with HCV and diabetes, should be started early and, also, to be more rigorous due to high prevalence of eGFR decline.

G-55
INFECTIONS IN A HOSPITAL AT HOME UNIT

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Objectives: To conduct a descriptive and retrospective study about the characteristics of patients admitted due to infectious conditions to the Hospital at Home Unit (HHU), at the Garcia Orcoyen Hospital (Navarra, Spain), during a period of 7 months. This is a community local hospital (second-level) with 97 beds and 10 HHU beds. HHU depends directly on Internal Medicine Department.

Material and method: We retrospectively reviewed the medical records of patients admitted in HHU for a period of 7 months (from 1st September 2011 to 31st March 2012).

Results: Amongst the 170 patients admitted to HHU during this period, 138 (81.2%) were admitted because of infectious processes. 92 of them (66.7%) were male, and the mean age was 76. All patients had calculated the Charlson Comorbidity Index (CCI), and 79 patients (57.3%) presented a CCI of 3 or greater. The departments from where most of the patients were referred to HHU were Internal Medicine, with 106 patients (76.8%); General Surgery, 11 (8%); Emergency Department, 10 (7.3%); Orthopaedic and Trauma, 5 (3.6%); and other departments, 6 (4.4%). With regards to the cause of admission, 96 patients (69.6%) were admitted because of respiratory infections, 16 (11.6%) because of intra-abdominal infections, 11 (8%) due to urinary tract infections, 11 (8%) due to skin and soft tissue infections, and 4 (3.9%) due to osteoarticular or endovascular infections. The average length of stay was 9.9 days. During the study period, 123 patients (89.1%) were discharged after being cured or after improvement, while 12 (8.7%) died and 3 (2.2%) required re-entering the hospital for different reasons.

Discussion: HHU is a booming alternative to conventional hospitalization, which can benefit patients with different disorders. Our data show that patients admitted in HHU because of infectious conditions represent mainly elderly and multi-morbidity patients, as in more than half of the cases CCI were 3 or greater. Likewise, most of these patients come from the Internal Medicine Department, suffer from respiratory infections, and require antibiotic therapy. Based on our experience, these patients need long hospital admissions, and therefore their stabilization on the ward followed by transfer to a HHU seems a noteworthy and beneficial plan of management. Bigger multidisciplinary studies may clarify the role of these units.

Conclusions: HHU is an excellent alternative for the management of patients with infectious diseases, regardless the cause, and especially for respiratory infections. We believe that this non-conventional way of hospitalization should be enhanced.

G-56
DESCRIPTIVE STUDY OF PATIENTS TREATED IN A HOSPITAL AT HOME UNIT OF A DISTRICT GENERAL HOSPITAL

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Objectives: To conduct a descriptive study about the characteristics of patients admitted to the Hospital at Home Unit

(HHU) at the Garcia Orcoyen Hospital (Navarra, Spain), during a period of 7 months. This is a community local hospital with 97 beds and 10 HHU beds. HHU depends directly on Internal Medicine Department.

Material and method: We retrospectively reviewed the medical records of patients admitted in HHU for a period of 7 months (from 1st September 2011 to 31st March 2012).

Results: During the mentioned period, there were 170 HHU admissions. 110 (64.7%) were male, and the mean age was 75.7. All patients had calculated the Charlson Comorbidity Index (CCI), and the average was 3.32 (60% of patients had CCI ≥ 3). The departments from where most of the patients were referred to HHU were Internal Medicine, with 134 patients (78.8%); Emergency Department, 14 (8.2%); General Surgery, 11 (6.5%); and Orthopaedic and Trauma, 5 (3%). The disorders that led to admission were: infectious, 81.2% of cases (138); heart failure, 10% (17); thromboembolic disease, 5.3% (9); and other reasons such as inflammatory bowel disease, diabetes mellitus, or stage of life, 3.5% (6). Among the infectious processes, the most common were respiratory infections, in 96 patients (56.5%). Up to 89.4% of patients (152) received antibiotics during hospitalization. The average length of stay was 9.8 days. 67 patients (39.5%) stayed less than 8 days, 80 (47%) between 8 and 14 days, and 23 (13.5%) over 14 days. During the study period, 13 patients (7.6%) were admitted ≥ 2 times, while 14 (8.2%) died and 7 (4.1%) required re-entering the hospital for different reasons. 149 patients (87.7%) were discharged after being cured or after improvement.

Discussion: HHU is an alternative to conventional hospitalization that was initially developed in major centres, but which is now also emerging in local hospitals like ours. The presented data show that patients admitted in HHU had advanced age and multiple morbidities, with an average CCI of 3.32. Most of these patients come from the Internal Medicine Department, suffering from infections (predominantly respiratory), and require intravenous antibiotic therapy. Patients with these characteristics need long hospital stays, which increase hospital overcrowding, costs and risk of hospital acquired complications. Thus, home transfer after stabilization of the patient represents a great advantage.

Conclusions: HHU is an excellent alternative to conventional hospitalization for monitoring and treatment of multiple diseases, and should therefore be promoted in all hospitals.

G-57
RESPIRATORY INFECTIONS IN A HOSPITAL AT HOME UNIT

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Objectives: To conduct a descriptive and retrospective study about the characteristics of patients admitted due to respiratory infections to the Hospital at Home Unit (HHU), at the Garcia Orcoyen Hospital (Navarra, Spain), during a period of 7 months. This is a community local hospital (second-level) with 97 beds and 10 HHU beds. HHU depends directly on Internal Medicine Department.

Material and method: We retrospectively reviewed the medical records of patients admitted in HHU for a period of 7 months (from 1st September 2011 to 31st March 2012).

Results: Amongst the 170 patients admitted to HHU during this period, 138 (81.2%) were admitted because of infectious processes, and 96 of them (69.6%) were due to respiratory infections. 64 of these patients (66.7%) were male, and the mean age was 80. All patients had calculated the Charlson Comorbidity Index (CCI), and 63 patients (65.6%) presented a CCI of 3 or greater. The departments from where most of the patients were referred to HHU were Internal Medicine, with 86 patients (89.6%); Emergency Department, 8 (8.3%); and Primary Care, 2 (2.1%). With regards to the cause of admission, 36 patients (37.5%) were admitted because of respiratory infections, 23 (24%) because of pneumonia, 32 (33.3%) due to COPD exacerbations, 3 (3.1%) due to asthma exacerbations, and 2 (2.1%) because of diffuse interstitial lung disease. The average length of stay was 9.4 days. During the study period, 84 patients (87.5%) were discharged after being cured or after improvement, while 11 (11.5%) died and 1 (1%) required re-entering the hospital. The mean duration of the antibiotic therapy was 9 days. 43 patients (44.8%) were treated with only one antibiotic, 39 (40.6%) with two different antibiotics, and 14 (14.6%) with 3 or more antibiotics. The most used antibiotic was ceftriaxone, in 34 patients (35.4%), followed by levofloxacin in 25 (26%), amoxicillin plus clavulanic acid in 23 (23.9%), piperacillin plus tazobactam in 15 (15.6%), and ertapenem in 10 (10.4%).

Discussion: HHU is a booming alternative to conventional hospitalization, which can benefit patients with different disorders. This kind of hospitalization enables early hospital ward discharge and thus prevents hospital acquired complications. Our data show that amongst patients admitted in HHU due to respiratory infections, despite their advanced age and multiple morbidities, only 40% of them presented a previously known chronic respiratory condition. COPD was the most prevalent of the latter conditions. Most of the patients were referred from Internal Medicine Department, and underwent long admissions. Around half of the patients were treated with two or more antibiotics. For the administration of antibiotics, either parenteral or oral therapy can be used. The latter is predominantly used in sequential antibiotic therapy (e.g. amoxicillin plus clavulanic acid). With regards to parenteral antibiotics, those that require a single daily dose are the most used ones in our environment (e.g. ceftriaxone and levofloxacin), although pumps for antibiotic infusion can also be used (as in case of piperacillin plus tazobactam).

Conclusions: HHU is an excellent alternative for the management of patients with respiratory infectious diseases. Parenteral antibiotics that require a single daily dose are the most used antibiotics. We believe that this non-conventional way of hospitalization should be enhanced.

G-58
MANAGEMENT OF GASTROINTESTINAL BLEEDING IN A SHORT STAY UNIT

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Objectives: To analyse the performance of Short Stay Units (SSU) in the management of gastrointestinal bleeding disorders.

Material and method: 260 clinical reports between february 2011 and february 2012 from a SSU in a general Internal Medicine Service were reviewed. Cuantitative variables are expressed in means ± SD. Non-parametric tests were performed for comparing variables without a normal distribution.

Results: 23 (8.8%) of the 260 patients were discharged as gastrointestinal bleeding. 10 (43.5%) were women. Patients were aged 73.91 ± 14.47 years. 4 (17.4%) reported smoking habit or active drinking. 6 patients (26.1%) had some degree of dependence or fulfilled criteria for pluripathological patients. 9 (39%), 5 (21.7%) and 3 (13%) patients took antiaggregants, oral anticoagulation or NSAIDs on a daily basis. 13 patients were on PBIs and none took anti-H2 drugs. Endoscopy was performed in 22 (95.7%) patients, with 16 (69.6%) of upper tract

endoscopies. Bleeding was from upper origin in 15 (65.2%) of patients. Patients stayed for 2.13 ± 1.25 days, with no patient staying for longer than 5 days. 4 (17.4%) needed readmission 30 days after discharge. However, only one of them consulted for new gastrointestinal bleeding. Only one patient (4.3) died in the first month after discharge. Haemoglobin under 10 g/dl on discharge was marginally associated with readmission (U = 8; p = 0.053).

Discussion: In this short cohort, gastrointestinal bleeding is safely managed in a SSU environment, with all patients being discharged in 5 days. The small amount of patients probably accounts for the extremely low mortality rate at 30 days. This may also explain the high readmission rate at 30 days.

Conclusions: Short-Stay-Unit-attended gastrointestinal bleeding have favourable outcome and might pose as an alternative to conventional in-hospital care of this prevalent, often severe diseases. More data are needed to identify patients that might not benefit from this modality of patient-care management.

G-59
DESCRIPTIVE STUDY OF INTERCONSULTATION CASES FROM UROLOGY SERVICE (US) TARGET TO INTERNAL MEDICINE (IM)

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Objectives: Describe patient profile hospitalized on US involved on incterconsultation cases target to IM, during one year, and identify their nature and main reason for inter consultation.

Material and method: Selection of inter consultation cases from US, registered on IM Clinic Management Unit during 2011. We put on practice a descriptive retrospective study. Variables studied: number of inter consultation cases, basic patient profile, nature and reason for consultation.

Results: They were included 13 (17.34) inter consultation cases. Age between 30 and 88 (12 men 1 woman). Nature: ordinary 5 (38.46%), preferential 4 (30.76%) equal as urgent. Reason for consultation: patient Service transfer 3 (23.08%), dyspnea and PD 2 (15.38% each). Miscellany: therapeutic assessment, low conscious level, chest pain, fever, HT and headache 1 (7.69% each).

Discussion: Based on our numbers we noticed they are frequent inter consultation cases target to IM from US. Used to be ordinary, most men, age between 19 and 88, being main reason patient transfer to our service looking for an integral management, followed by dyspnea and PD.

Conclusions: The clinic knowledge of the IM professional and its integral management of different pathologies, makes him able to prevent and treat the complications appeared on medical surgery services where patients day by day have more comorbidities.

G-60
IMPORTANCE OF GUIDELINES FOR DECISIONS TO WITHHOLD OR WITHDRAW MEDICAL TREATMENT IN TERMINAL PATIENTS

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Objectives: The terminal phase of a person´s life has been raising ethical issues and doubts throughout the years, particularly when there is a possibility to medically intervene to relieve pain and suffering. In fact, the evolution of medicine created the possibility to prolong human existence beyond what would be naturally expected; therefore it is important to establish criteria for a good clinical practice at this stage of life.

Material and method: We will present different types of guidelines for decision involving competent or incompetent patients specifically, referring to withhold or withdraw futile or disproportional medical treatment. In addition, we submitted a survey on this subject to 50 medical doctors of our hospital in order to establish de Internal Medicine point of view.

Results: In Portugal, the debate started on 2006 and, in 2009, a law on this matter was approved but quickly dismissed because of the lack of consensus. The results of the survey, still on application, will be presented for discussion.

Discussion: For us, the ideal situation would be the suspension or abstention of disproportionate means of treatment – including cardio-pulmonary resuscitation, also known as orthotanasia; as opposed to therapeutical stubbornness or distanasia. We will also discuss the problem of living will as an inalienable and basic right of self determination.

Conclusions: We intent to show the importance of promoting an agreement on this issue involving not only health professionals but the all society, including our own governments.

G-61
ELECTRONIC INTERCONSULTATION BETWEEN LEVELS OF CARE: AN INNOVATIVE CIT APPLICATION TO THE HEALTH SYSTEM

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Objectives: Usually, interconsultations from primary care to hospital specialists are based on referral of patients or telephone requests. The large amount of referrals and limited capacity of clinics usually leads to a continuous increase of waiting lists. Moreover, a non-negligible amount of referrals could be resolved with pertinent counselling. From this starting point, a new model of clinical case problem counselling via e-mail, was set up in 2009. After two year trial, favourable results in terms of resolution capacity and primary physicians satisfaction were achieved. At this point, we have been linking this feature to the electronic medical history after the availability of a proper interface between software programs of both levels of care. The aim of our study was to analyze electronic interconsultation demand regarding each specialty and its evolution over time as well as to collect feedback from primary care physicians regarding usefulness and satisfaction.

Material and method: Since June 2011, electronic interconsultation focusing on particular clinical case problems has been available to all primary care physicians in our hospital related basic health areas. Images or other files attachment were permitted. All medical specialties in our department took part in this new scheme. The reports were saved in the electronic medical history and were immediate and easily available to the petitioner physician. An inquiry about referral need, usefulness and satisfaction was launched to primary care physicians at the end of every report consultation. Inquiries featured 4 items: referral saving (yes/no), request saving (immediate referral, telephone consultation and others), usefulness (five degrees: from very high to none) and satisfaction (five degrees: from very high to very low). We analyzed the amount of interconsultations and their distribution among specialties as well as the results of inquiries collected from June 2011 to May 2012. We performed descriptive statistical analysis and compared qualitative variables using SPSS.

Results: Globally, 591 interconsultations were performed and 338 requests (57%) were answered. Quarterly analysis of demand shows a sustained increase along the time, from 75 to 212 interconsultations, with smaller increases between successive periods (from 75 to 23%). The most requested specialties were dermatology (42%) and cardiology (19%). Inquiries results (average percentage and range in brackets): referral saving 71% (50-100%); immediate referral saving 28% (24-31%); telephone consultation saving 24% (17-40%); high and very high usefulness 86% (77-95%); low and very low usefulness 2% (0-6%); high and very high satisfaction 85% (71-100%); and low and very low satisfaction 3% (0-9%). Globally, results among specialties were quite homogeneous with slightly higher immediate referral savings in cardiology (31%) and dermatology (29%).

Discussion: Progressive increase in the use of electronic interconsultation along the time clearly shows the wide acceptance and vast utility perception of this model among primary care physicians. Its use has allowed primary care resolution capacity to increase and has saved a non-negligible amount of referrals and telephone consultations in a very satisfactory way. Its largest using and best efficiency results concerning two specialties: dermatology and cardiology are remarkable. This could be partly due to their characteristically image related concerns (skin lesions and ECG interpretation) as well as their longer waiting lists.

Conclusions: Integrated interconsultations in the electronic medical history between primary care physicians and hospital specialists provide a very useful interrelation between care levels in terms of efficiency and satisfaction. Widespread use of this innovative CIT application in the health system as a regular feature within the range of specialized care services should be taken into account.

G-62
HYPERTENSION IN AN EMERGENCY DEPARTMENT: THE INTERNIST'S APPROACH

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Objectives: To review admissions and medical approach to acute elevations in blood pressure (BP; hypertension crisis) in the Emergency Department (ED) of a Portuguese Central Hospital.

Material and method: Retrospective Descriptive Analysis of patients discharged with the diagnosis of Hypertension (HTN), admitted to a Portuguese Central Hospital's ED during a 10 month period (from January to October of 2011). Use of Microsoft Office Excel 2007 for analysis.

Results: A sample of 917 patients was obtained, with an average age of 64 years old and a discrete predominance of female sex patients (62.5%). Seventy eight percent of the patients had a previous diagnosis of HTN and 68.7% were medicated; 21% were diabetic, 20.7% had dyslipidemia, 16.5% had previous cerebro- or cardiovascular events. Of the antihypertensive medications: 16.1% were under monotherapy and 24.1% under fixed associations; 25.2% were medicated with ACEI, 25.6% with ARAB, 30.5% with diuretics, 16.9% with CCBs, 16.6% with BB and 1.5% with Direct renin inhibitors. Only 10% of the patients were followed in the ambulatory by Internal Medicine or Cardiology Specialists. In 21% of the cases, patients had already come to the ED before for HTN crisis: of these, only 10.4% were not medicated, and only 18.7% were followed in ambulatory by a specialist (vs 76.2% followed by the general practitioner). Of the symptoms that motivated ED admission, the most prevalent was headache in 34.7%, chest pain in 19.7%, dizziness in 17.7%. In 11.0% of the patients, high BP measured in ambulatory was the only admission reason. Most were admitted with the yellow bracelet according to the Manchester Triage System. In 19.8% of cases, patients had already took some antihypertensive drug before admission at the ED (mostly ACEI). At admission, 31.2% had Systolic BP (SBP) between 180-199 mmHg and 24.6% above 200 mmHg; 13.5% had SBP > 200 and DBP > 110 mmHg, and 12.5% had isolated systolic HTN (SBP > 160. DBp < 84 mmHg). Diastolic BP (DBP) was above 110 mmHg in 31.7% and 100-109 mmHg in 23.4%. To most patients was administrated some antihypertensive drug at the ED: in more than 80% were given oral and/or sublingual ACEI, in 39.5% diazepam, in 31.5% a diuretic, in 28.3% a CCB; in 10.6% no drug was administrated. At discharge, 34.2% had SBP between 140-159 mmHg; 25.1% below 140 and 17.2% above 160 mmHg; 42.7% had DBP below 84 mmHg and 22.1% above 90 mmHg. In 35.3% of cases antihypertensive treatment was started or the added new drugs to the ambulatory medication and/or doses raised. Only 3.7% of patients were discharged to a specialist consult.

Conclusions: Uncontrolled BP remains a significant challenge, not only for the ED frequent visits but also in the daily basis of the clinical practice. There is still a significant number not only of undiagnosed patients, but surprisingly of undertreated hypertensive patients. At admission BP levels are markedly elevated and pharmacological intervention at discharge was important. This small study does not describe true HTN urgencies or emergencies, but it reflects a significant parcel of admissions at the ED for uncontrolled BP, partially caused by under-treatment. Controversy remains about the best approach to HTN crisis: the authors recommend the development of Protocols for the best management of the patient at ED, in which the Internist plays the main role.

G-63
IN-HOSPITAL MORTALITY OF THE PATIENTS WITH ACUTE CORONARY SYNDROMES PRIMARILY ADMITTED TO NONACADEMIC HOSPITALS

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Objectives: Despite low in-hospital mortality (4-6%) seen in the latest randomized trials of myocardioal infarction, mortality rates in registry studies are much higher, suggesting that the patients included in the randomized studies are at a lower risk when compared with those seen in the real world. The main task of our work was to determine in-hospital mortality of patients with acute coronary syndromes (ACS) primarily admitted to internal medicine departments of nonacademic hospitals. Secondarily we decided to identify baseline predictors of in-hospital mortality of our ACS patients, and so define population at high risk of in-hospital death.

Material and method: The data originated from ALERT-CZ (Acute coronary syndromes – Longitudinal Evaluation of Real-life Treatment in non-PCI hospitals in the Czech Republic) registry in nonacademic hospitals from 1.7.2008 to 30.6.2011. None of the participating hospitals had catheterisation facilities. Interventional treatment (if indicated) was provided in a catchment faculty hospital with PCI-centre. All internal departments provided a comparable level of acute cardiology care and a similar spectrum of diagnostic and therapeutic procedures (with the exception of interventional therapy); therefore, these hospitals were considered to be an adequate sample of non-PCI hospitals in the Czech Republic. All participating internal medicine departments admitted an unselected

population of patients from their surrounding area. We evaluated the effect of cardiovascular risk factors, patient´s baseline characteristics and acute therapy on in-hospital mortality of ACS patients.

Results: In total, 6.013 ACS patients were included. The majority of patients were men (59.0%), and the average age of all ACS patients was 70.3 ± 12.1 years (range, 20.9-103.8). The proportion of patients > 75 years was 40.2%. Average length of hospital stay was 6.6 days (median, 5.0 days). Total in-hospital mortality in our ACS population was 7.5%; in STEMI patients 12.7%, in NSTEMI 9.0 % and in patients with unstable angina 0.3%. In multivariate analysis known history of hyperlipidaemia, diabetes and hypertension did not significantly influence odds of death in ACS patients, similarly as a history of MI and baseline value of haemoglobin. Increasing age had an adverse influence on the odds of in-hospital death (< 0.001). Higher systolic blood pressure on admission was significantly associated with the lower odds of death (< 0.001). Heart rate on admission between 80-155/min significantly increased the odds of death (0.004). The higher baseline creatinin (> 100 µmol/l) had a significantly negative effect on the odds of death (< 0.001). Odds of in-hospital death also increased along with the decreasing number of recommended medications used in acute phase of ACS. Compared with a total number of 5 recommended medications, odds of death was 1.5 times higher for 4 medications, 2.8 times higher for 3 medications, 2.9 times higher for 2 medications, 8.1 times higher for 0-1 medications.

Conclusions: Total in-hospital mortality in our ACS population was 7.5%. We identified several patients' characteristics predicting adverse outcomes of patients with acute coronary syndromes (myocardial infarction and unstable angina). Higher age, heart failure at presentation, lower systolic blood pressure at admission, heart rate 80-155/min and elevated initial creatinin values at admission were independent negative predictors of inhospital death. Administration of all recommended pharmacotherapy within the first 24 hours significantly decreased odds of in-hospital death of patients with acute coronary syndromes. Clinicians involved in the care of patients with ACS should pay particular attention to these subpopulations to select the best management strategies for these patients in accordance with the guidelines.

G-64
ANALYSIS OF THE MEDICAL CONSULTATIONS PERFORMED IN AN INTERNAL MEDICINE DEPARTMENT DURING TWO YEARS

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Objectives: A descriptive and retrospective study about the medical consultations received in the Internal Medicine Department at the Garcia Orcoyen Hospital (Navarra-Spain) during 24 months. This is a community local hospital (second level) with 97 beds, one third directly depending on that Department.

Material and method: We reviewed the digital medical records of the patients we received consultation request from January 2010 to December 2011.

Results: 309 consultation requests were submitted during this time, approximately 3 per week. The average age was 74.1 years; 46% were between 66 and 80 years; 56% were female. The most of the assistances were continuous (70.8%). The principal reference Department was Traumatology (62%), followed by General Surgery (28%). The mean duration of the patients monitoring (number of visiting days) was 4.75, with 36.2% of the patients tracked 2 to 4 days and 31.4% during 5 to 10 days. The global account of visits was 1487. This means two extra patients per day in the 24 months analyzed. By age, the most of the patients visited more than 5 days (73%) were 65 years old or above. About the clinical entities diagnosed/treated, diabetes and its complications was the main cause of consultation (23%), followed by hypertension (14.8%), respiratory tract infection/pneumonia (13.2%), chronic/acute renal failure (12.6%), heart failure (11.6%), anaemia (11.3%), arrhythmias (10.6%) or delirium (7.1%). Other common diseases were skin/soft tissues infection or vomiting/ileus. Related to the surgical patients, 45% underwent a hip-repairment surgery, in 19% a gastro-intestinal surgery was performed and 15% had other Trauma disorders different from knee-repairment (11%).

Discussion: First proposals about formal consultation between surgical and medical physicians were carried out by Goldman in 1983. In recent studies, 5 to 55% of the patients admitted to a surgical Department were seen by internists. Sometimes easy and grateful, many other times visits are hard and difficult because of the wide variety of diseases and the special conditions related to surgical patients. Our data show that the population assisted is similar in age, sex distribution and comorbidities to those patients admitted to the internal medicine Department. Similar to other series, Traumatology referred the highest number of consultations. Length of the diseases assisted (the average was almost 5 days, some until three weeks) shows the complexity of the patients and the additional charge they involve for the medical staff who take care of them. As supposed, elderly patients and most prevalent entities in that range of age (cardiovascular diseases, diabetes…) concerned the majority of consultations, whereas the common complications of the surgical procedures. We did not compare mortality rates.

Conclusions: Medical consultations are very relevant tasks in the daily work of internists, some cases with special dedication and difficulty. It is quite important to work hard in this area, in order to achieve good results in this kind of subspecialty. Maybe specific protocols and guidelines should help in the management of these patients, so we could improve actual results.

G-65
ACUTE INFECTIONS IN THE SETTING OF A SHORT STAY UNIT

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Objectives: to describe the clinical features of patients admitted to a Short Stay Unit (SSU) because of an infectious disease different from chronic obstructive pulmonary disease (COPD) exacerbations. To describe factors associated with length of stay, readmission rate and mortality.

Material and method: 260 clinical reports about patients admitted into a SSU because of an infectious disease were reviewed. Patients discharged with diagnosis of COPD or CAP were excluded. Categorical variables were compared by means of χ^2 test, cuantitative variables were compared with correlation coefficients. Statistical Package SPSS 15.0 was used for the management of the study data.

Results: a total of 128 patients were included. Mean age (± SD) was 74.11 ± 15.99 years. 77 (60.2%) were women. 66 (51.6%) had at least two items computing for pluripathological patients, with 1.63 ± 1.24 categories. 31 patients (24.8%) had 3 or more categories. 55 (43%) had some degree of dependence. 87 (68%) were polymedicated. 17 (13.3%), 10 (7.8%) and 4 (3.1%) patients needed readmission 30, 14 and 3 days after discharge, respectively. Length

of stay was 3.06 ± 1.43 days with 6 (4.7%) patients staying for longer than 5 days. 4 patients (3.1%) died during the first 30 days after discharge. There was a marginal relationship between pluripathology and readmission (p = 0.055). More computing categories also correlated with readmission (p = 0.048), and so did polymedication (p = 0.02). Positive blood cultures did not relate with readmission. Site of infection did not affect readmission.

Discussion: Acute infections are common processes that often motivate long hospitalization periods in elderly, fragile patients. SSU stand as an alternative to conventional management that appears to be safe, although the relative small size of this cohort might not allow to correctly predict adverse outcomes.

Conclusions: Common infections are safely managed in a SSU environment, even among elderly patients with multiple comorbidities. In these patients, more often than not, can be more adequate in order to prevent iatrogenic complications. More data are needed in order to identify which patients will benefit more from this approach.

G-66
THE COMPARISON OF QUALITY OF LIFE IN PREDIALYTIC, DIALYTIC AND POST KIDNEY TRANSPLANTATION PATIENTS

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Objectives: The quality of life (QoL) is a complex concept that includes physical, psychological and social domain of health and is influenced by human experiences, beliefs and perceptions. Chronic renal failure (CRF) is a clinical syndrome that indicates a progressive loss of kidney function. Renal replacement therapy prolongs patients survival, but also has a significant impact on the QoL. The aim of our study was to compare biochemical and hematological parameters as well as the QoL in patients with CRF treated by three different ways.

Material and method: We performed prospective study conducted on 120 patients divided into three groups: 40 patients with transplanted kidney, 40 patients on chronic hemodialysis and 40 patients treated only by conservative therapy.

Results: The results of the SF-36 test show that there are differences in seven of eight fields of questionnaire between transplant patients on one hand and the subjects treated by hemodialysis and conservative therapy on the other hand. The highest scores in all eight areas were obtained in the transplanted patients group. In both summary scales the highest values were obtained in the transplant group, while almost the same value was verified in patients undergoing hemodialysis therapy and conservative treatment.

Conclusions: According to results obtained by examination of various aspects of QoL, we concluded that kidney transplantation is the type of therapy for end-stage renal disease that provides the best QoL to patients.

G-67
SPECIALIZED CARE COORDINATION IN THE AMYOTROPHIC LATERAL SCLEROSIS THROUGH NURSING MANAGEMENT OF CASES IN A UNIT OF INTERNAL MEDICINE

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Objectives: Specialized care in so-called rare diseases is a challenge in community hospitals due to technological limitations. However, this should not be an obstacle to coordinate treatment interventions required for each case. In a coordinated sequence of care called single act. (Acto único).

Material and method: Since 2008 have been captured for monitoring and review patients with amyotrophic lateral sclerosis (ALS) derived from the Regional Hospital, (University Hospital Reina Sofia, Córdoba, Spain) with clinical reports of altered needs to be covered by our hospital. They are referred to Case Management Nursing Hospital Infanta Margarita, Cabra, Córdoba (Spain). Initially they are controlled in single acts of review by the medical departments of Pulmonology, Clinical Nutrition, Rehabilitation and other hospital departments: pharmacy, customer service, etc. From the initial contact with the patient is done a general evaluation of the patient's family and level of information they possess. In one case, with high dependence on mechanical ventilation and required the presence of multiple specialists: ORL, Intensivist, Pulmonologist and Nutritionist and medicalized ambulance was needed for moving the patient from home to hospital and back to the return address.

Results: Since jan.2008 till May, 2012 a total of 16 cases of patients affected by ALS has treated: Lucena 8 cases, 2 cases of Priego de Córdoba, 4 cases of Córdoba Cabra, 2 cases Rute. In 8 cases, the single act: Neumology + + Rehabilitation Clinical Nutrition has been done. In one case, the multidisciplinary care offered by Intensivist + Neumology + Clinical Nutrition and medicalized transport to change tracheostomy tube because thre was tracheal deformity and risk of loss of ability to breathe. The patient was under mechanical ventilation with 6 hours of autonomy portable fans. It requested the presence of the intensivist after the revocation of the desire not to resuscitate the patient had previously expressed. The rest of experts evaluated the patient´s health after the change of the cannula in the same room, previously prepared. The coordinated acts through corporate phones allowed a coordinated care professionals. The tracking by satellite of the ambulance transporting a patient on mechanical ventilation until his arrival at the hospital allowed the coordination of specialists needed for therapeutic actions sequentially.

Discussion: Currently, five patients have died: 2 in Cabra, 2 in Priego and 1 in Lucena because of the gradual progress of the disease. Four patients died at home and one in the hospital. The rest are still alive, with acceptable quality of family life. Nursing Case Management Center assigns the card "+ Cuidados" to the carers of these patients. The coordination in hospital medical health cares through Nursing Case Management and various specialists required by ALS cases is not only possible but necessary.

G-68
INCIDENCE, PROGNOSIS FACTORS AND TREATMENT OF ACUTE CHOLANGITIS IN A DIGESTIVE DEPARTMENT

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Objectives: To evaluate epidemiological characteristics and severity of acute cholangitis (AC) cases in our department, as well as safety of endoscopy treatment (ERCP) in this entity.

Material and method: We performed a retrospective descriptive study of hospitalized episodes of acute cholangitis from January 2008 to April 2012. We analyzed clinical data of patients, the etiology and severity of AC and the treatment received.

Results: 143 patients were diagnosed with AC. 60.8% were male, with a mean age of 73.25 years (range 21-99). With an average hospital stay of 10.65 days. Main cause of acute cholangitis was choledocholithiasis (69.2%) followed by hepatobiliopancreatic neoplastic disease (7.7%). Most cases (86.7%) debuted with the classic triad (pain, fever and jaundice). Remainder (13%), made

their debut with laboratory abnormalities or atypical symptoms. Half of patients underwent blood cultures being positive 18.9% (14% gram negative Escherichia coli predominating, gram-positive cocci 3.5% and 1.6% polymicrobial). In one third of cases (9 of 27 positive cultures) were isolated resistant organisms to common used antibiotics. Half of patients, were treated with piperacillin-tazobactan, 15.5% required return for broader spectrum antibiotic. 82.5% of the cases were mild cholangitis, while 5.6% met criteria for severe sepsis needing ICU admission. Overall mortality was 6.3%. The severity of AC is associated with the presence of comorbidity and resistance in the isolated microorganisms ($p \leq 0.03$). In 108 patients (75.5%) biliary drainage with ERCP was performed (54% sphincterotomy and 21% biliary stent placement). 21% of cases only medical treatment was required and 3.5% required surgery or CPTH for infection solution. After ERCP only a 9.8% patients had technical complications (2.8% acute pancreatitis, gastrointestinal bleeding 4.2% and 2.8% cardiovascular or respiratory disorders) no mortality was associated to technique. We found no association between complications of ERCP and the patient's age nor comorbidity ($p = 0.28$). 17.5% of cases had a second episode of AC, being more frequent in patients with previous biliary tract surgery (13.9% vs 38% $p = 0.013$) and prosthesis/biliary drainage (11% vs 37% $p = 0.001$), founding no association with etiology or presence of malignancy ($p = 0.1$).Overall mortality was 6.3%, being 4 of the 9 patients due to advanced biliary malignancies and it was associated with the presence of resistant organisms (11% VS33% $p = 0.001$) and recurrence of AC ($p = 009$).

Discussion: AC is a prevalent disease in males, especially in advanced middle age and comorbidity patients. The most common etiology is obstructive choledocholithiasis. 13% of cases are clinically latent, so the diagnosis should be suspected. In 42% of cases it is profitable to carry out blood cultures of microorganism producing of AC and knowledge of new resistances, related to morbidity and mortality of this entity. The main treatment is an early antibiotics administration (especially beta-lactam), and drainage by ERCP in 75% of cases (9.8% had complications not associated to the patient's age or comorbidity). Recurrent cholangitis is nearly three times more frequent in patients with previous biliary tract surgery and patients with prostheses/biliary drainage ($p \leq 0.013$) with high mortality in these cases.

Conclusions: Blood cultures are profitable in AC suspicion, because resistant organisms are associated with increased morbidity and mortality. Endoscopic treatment of AC is safe and effective, with a high success rate in resolving the acute illness, even in elderly patients.

G-69
STUDY ON THE ASSOCIATION OF THE RS1948 POLYMORPHISM IN THE CHRNB4 GENE, WITH ALCOHOL CONSUMPTION AND TOBACCO SMOKING IN A MEDITERRANEAN POPULATION

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Objectives: Tobacco and alcohol consumption supposes a world-wide serious health problem. The existing evidence suggests some genetic factors underlying these conducts. The rs1948 polymorphism in the neuronal Acetylcholine Receptor subunit beta-4 (CHRNB4) gene, that is part of the CHRNA5-CHRNA3-CHRNB4 cluster, has been proposed as a modulating factor of the beginning and maintenance of the tobacco and alcohol use.

Material and method: As a part of a wider research project on the genetic bases of tobacco and alcohol use in Spanish population, we show here preliminary data on 372 individuals. All participants filled a questionnaire in which alcohol and tobacco consumption variables were measured. Also, Fagerstrom and AUDIT tests were undertaken in order to estimate the level of addiction to these substances. The rs1948 polymorphism was genotyped by using the TaqMan® assay (Applied Biosystems). Multivariate regression analyses were carried out to test associations.

Results: Genotype distribution was G/G 49.4%; G/A 39.1%; A/A 11.5%. This was in agreement with the Hardy-Weinberg equilibrium. No associations were found between the rs1948 polymorphism and the tobacco smoking and addiction variables. Regarding with alcohol consumption, and after performing the stratification of the sample by age, and after adjusting by sex, civil status and instruction level, we found that individuals between 18-40 years that were carriers of the A variant, had an increased alcohol consumption estimated by daily mean alcohol intake (3.02 ± 0.65 g in A carriers versus 1.40 ± 0.39 g in G/G, $p = 0.004$), and by standard beverage units (SBU) (0.50 ± 0.09 SBU in A carriers versus 0.23 ± 0.06 SBU in G/G, $p = 0.003$). Furthermore, the carriers of the A allele had a nearly 4-fold increased risk of being alcohol consumer than the G/G individuals (OR = 3.85; 95%CI: 1.73-8.56, $p = 0.001$). The carriers of the A allele also showed greater AUDIT test scores than the G/G individuals (2.41 ± 0.31 in A carriers in front of 1.72 ± 0.39 in G/G, $p = 0.011$).

Conclusions: The rs1948 polymorphism in CHRNB4 gene is significantly associated with alcohol consumption and addiction in the 18-40 years subsample. These preliminary results suggest that this genetic variant may be a determinant of alcohol consumption in the Mediterranean population. Acknowledgments: This work has been supported by grants UV-INV-AE11-41946.

G-70
UCIA (UNIT AND CLINIC IMMEDIATELY ATTENTION): A NEW WAY OF MAKING INTERNAL MEDICINE

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Objectives: To demonstrate the usefulness of new created units to improve the medical attention of specific processes, avoiding unnecessary admissions patients and also an excessive long waiting list that obstruct and delay the diagnosis. We would like to tell you about our experience and labor along one year of operation, the first one, of UCIA.

Material and method: A retrospective observational study reviewing the register of UCIA, the clinic histories, and the data of Admission Service that counts 338 patients. We collected data referred to: number of patient, age, sex, medical and surgical records, usual treatment, symptoms, place, required tests or studies, time to attending, suspect diagnosis, waiting time for results, other Medical Services collaboration, number of visits and final diagnosis.

Results: Along one year working (April 2011-April 2012) 338 patients has been attended. 179 were males and 159 females, the prevalence of pluripathologic patients were 64% with same grade of presentation for men and women. The mean time to attention was 38 hours, 81% of patients comes from Emergency, 1% comes from other hospital Speciality and the rest from Primary Care. The mean number of visiting for patient is 2.4 times and the final diagnosis has been classified in different categories: Heart pathology 49 cases; Digestive pathology 30; Cancer 21; Reumathologic pathology 12; Infectious diseases 9; Neuropathology 9; Multifactorial anaemia

8, ferropenic 11, megaloblastic 3, Deep venous thrombosis 23; Secondary effects or iatrogenic effects 4; Haemathologic disorders 5; Diabetic debut 3; Thyroid pathology 5; 1 Cushing's syndrome; 2 Mondor's syndrome; Syncope 3 cardiogenic, 2 neurogenic and 6 vasovagal; 4 Allergic pathology; 2 vasculitis; we don't have wrong findings in 62 patients; 31 patients continue following and don't have data about the rest.

Discussion: We know one year is a short time of work and the accumulated experience with only 338 patients could be not enough, also to find data to compare our Unit to other one with similar characteristic is difficult, because this is not a common way to make Internal Medicine practice. On the other hand we would like to find a useful scoreboard or index to calculate the efficiency of the UCIA and in addition to quantify the avoided admissions and the saved time to wait attention.

Conclusions: The global approach of illness and a good relation between different Medical Services as Primary Care, Emergency and Internal Medicine is the most important ingredient to make working this kind of "fast diagnosis units".

G-71
THE SHORT STAY MEDICAL UNIT IN A PRIVATE HOSPITAL: A RETROSPECTIVE STUDY

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Objectives: The aim of the present study was to examine a Short Stay Medical Unit (SSMU) in a tertiary private owned-hospital of Catalonia (Spain), in order to compare the characteristics of admitted patients and their pathologies with those from SSMUs of Spanish public health-hospitals.

Material and method: Retrospective study of all patients admitted to our SSMU between January and December 2011, using descriptive statistical methods.

Results: A total of 1098 patients (54.2% females, average 41.9 ± 10.3 years old) were admitted to our SSMU in 2011; 1037 patients were discharged from the same Unit, while 61 patients (5.6%) were transferred to other departments due to changes in diagnosis or clinical complications. The average stay was 1.51 days, the mortality and readmission rates were 0.1% and 2.4%, respectively. The most prevalent diagnoses at discharge are depicted in table 1. The averaged age and length of stay for patients with a diagnosis of urinary tract infection were 45.1 years and 1.9 days, respectively, for those with a diagnosis of community acquired pneumonia were 38.9 years and 2.8 days, respectively, for patients with esophagitis and gastritis 39.5 years and 0.8 days, respectively.

Discussion: The SSMU can be an alternative to conventional hospitalization; it provides targeted care to patients dischargeable in less than 5 days and is usually linked to the Emergency Department. When comparing our data with Spanish registries about patients admitted to SSMUs in public health-hospitals, we can see that in our Center patients are significantly younger (41.9 vs 75.4 years), with a higher percentage of males (45.8 vs 36.8%), and stay less time in the Unit (1.51 vs 2.37 days); mortality and readmission rates are very low, as is the percentage of patients who need to continue their hospitalization in other departments. Infectious diseases are by far the most prevalent pathologies, more than in public SSMUs.

Conclusions: In public hospitals SSMUs represent an alternative to ordinary ward, mainly directed towards exacerbations in chronic patients. In our hospital, that receives mainly subscribers of private health insurances, this model of "light" hospitalization is offered to selected acute patients with low-grade comorbidities, so allowing a rapid diagnosis and effective initial treatment and increasing patients' satisfaction.

Table 1 (G-71). The Most Prevalent Diagnoses at Discharge from our Short Stay Medical Unit in 2011

Diagnosis	Prevalence (%)
Urinary tract infections	12.5
Community acquired pneumonia	10.9
Esophagitis and gastritis	9.2
Acute gastroenteritis	7.5
Other causes of abdominal pain	7.4
Acute bronchitis and chronic obstructive pulmonary disease	6.8
Upper respiratory infections	6.8

G-72
UNINTENDED DISCREPANCIES AT DISCHARGE FROM AN INTERNAL MEDICINE SERVICE

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Objectives: Unintended discrepancies are unjustified differences between patient home regimen and medications prescribed at discharge. The aim of reconciliation is to guarantee that patients receive all necessary medicines adapted to their clinical and social situation. The objectives of this study were to identify and characterize the unintended discrepancies between the medication list at admission and the physicians discharge medication orders obtained by an internal medicine specialist physician through the analysis of the hospital discharge reports.

Material and method: This was a descriptive and retrospective study of adult patients admitted in Internal medicine service. It was based on the review of consecutive hospital discharge reports that were produced by 14 services specialist physicians during the first two months of the year. Patients who died or were transferred to other units of care, were excluded from the study. The classification that we use was: no discrepancies, when the medication at discharge was the same as that at admission, and medication discrepancies that means any difference between medication list at admission and at discharge. These medication discrepancies can be unintentional or intentional discrepancies.

Results: We reviewed 412 discharge reports, and 145 reports were excluded. A total of 267 reports were analyzed in the study. These corresponded to 254 patients, since in 13 cases the reports corresponded to patients that were hospitalized more than once during the study period. In the reconciliation process, we found discrepancies in 242 (90.6%) of them. Both Intentional and unintentional discrepancies were found in half of the cases (121). The most frequent medication error was omission of a medication detected in 61% of cases, followed by commission of a medication (a medication was ordered at discharge which the patient did not take before hospitalization, and there was no clinical explanation for adding the medication) detected in 26% of cases. Incomplete information at the medication list at the admission was detected in 56% of cases and 51% of them were dependent in the daily activity.

Discussion: Unintended discrepancies at the discharge were prevalent for patients admitted in a general internal medicine service (50%). The most frequent medication error was omission of a medication detected in 61% of cases.

Conclusions: Therefore, appropriate routines for ensuring an accurate collection of the medication history and the methodical completion of the medication list at the discharge when performed by trained internist are important factors for an adequate medication reconciliation process.

G-73
HEPATIC PERTURBATIONS IN PATIENTS WITH TREATED WILSON'S DISEASE

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Objectives: In Wilson disease, hepatic involvement is variable, from fatty liver to hepatitis- acute, chronic active- and cirrhosis. Wilson disease is an autosomal recessive genetic disorder caused by abnormal gene ATP7B of chromosome 13, in which accumulation of cooper leads to liver disease and neuropsychiatric manifestations. The prognosis may be improved by persistent and precocious treatment. Aim: the observation of hepatic damage in evolution of two young patients diagnosed with Wilson disease and treated 17 years.

Material and method: There are presented 2 patients, sister and brother, 31 and 27 years old, diagnosed at 14 and 10 years old with Wilson disease by clinical manifestations with hepatomegaly, extrapyramidal syndrome, behavioral changes and laboratory tests (low serum ceruloplasmin and copper, increased level of urine copper), liver biopsy, imagistic investigations.

Results: In these familial cases, the hepatomegaly was a fatty liver, confirmed imagistic and at the liver biopsy: micro and macro vesicular steatosis. The mutations of gene for ATP-ase which link the copper to ceruloplasmin in hepatic cells decrease this linkage and the biliary clearance of copper causing a toxic effect of copper: the accumulation of free radicals, the oxidation of lipids, enzymes and proteins and in time cell apoptosis. The continuous treatment with copper chelators (penicilamine, trientine, zinc) and diet maintained only the steatosis and the severe evolution to cirrhosis were stopped.

Conclusions: 1. Hepatic manifestation with steatosis by metabolic perturbations copper induced may be observed in treated Wilson disease. 2. If the disorder is early detected and treated, the fatty liver remained non aggravated long time. 3. The specific treatment to control the copper can stopped the evolution to severe liver lesions long time.

G-74
ONE YEAR EXPERIENCE OF A SHORT STAY UNIT IN A TERTIARY HOSPITAL. REPORT FROM FIRST RESULTS

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Objectives: To describe the profile of patients admitted to the SSU and analyze the most prevalent disease groups. Objectify if SSU can be a good way to treat some acute pathologies and if we meet the targets set for an SSU. We believe that the patient readmission to the emergency is defined by a 24 hours stay in the month following into the hospital.

Material and method: Descriptive, retrospective design performed on patients admitted into a SSU between February 2011 and February 2012. 260 clinical reports were reviewed. Categorical non parametrical variables were compared using non parametric tests.

Results: We have an average stay of 3 days +/-2.2 days (± SD) with a mean age of 73.13 ± 16.26 years (± SD). (49.8%) of them fulfilled criteria of pluripathological patients. (34.1%) had some degree of dependence in basic activities of daily living. The most prevalent chronic diseases were: hypertension (65.8%), dyslipidemia (46.5%), diabetes (42.3%), chronic kidney disease (25.8%), COPD (24.2%) and atrial fibrillation (23.1%). The most frequent main diagnoses at discharge were: heart failure (17%), lower respiratory tract infections (11.2%), community-acquired pneumonia (11.2%), gastrointestinal bleeding (8.07%), renal failure (7.7%), urinary tract infections (6.53%), exacerbated COPD (5%), acute gastroenteritis (3.46%). (16.9%) of patients met criteria for readmission of which (2.4%) was within the first three days after discharge. Median days to readmission was 17.88 days ± 14.78 (± SD). (47.7%) of readmissions were due to same reason which led to their admission to the SSU. Of 6 patients who were readmitted within the first 3 days after discharge, only 2 of them for the same reason. There is an association between polymedicated patient (χ^2 = 4.35; p = 0.037) and pluripathological criteria (χ^2 = 8.71 p = 0.003) with patient readmission. Category A (heart disease NYHA II or chronic ischemic disease) and category B (Chronic renal disease) are associated with readmission (χ^2 = 6.57; p = 0.01) (χ^2 = 6.073; p = 0.014). Other categories and dependency did not relate with readmission. 42.7% of patients were referred for outpatient internal medicine after discharge, but this did not affect readmission. (11.9%) of patients died during the follow-up. One of them did while in the SSU. 8 patients (3.1%) died during the first month after discharge. Anemia at the time of discharge correlated with mortality (p < 0.001) Patients that needed readmission also had a higher mortality at 90 days (p = 0.006), which was also the case among patients readmitted 14 days after discharge (p < 0.001) during the first 72 hours after discharge (p < 0.001). 5% of patients required conventional hospitalisation.

Conclusions: SSU can help reduce length of hospital stay and has a low readmission rate when considering the same process that caused the original admission to the SSU. Our population comprises elderly people and mostly with criteria of comorbidity and certain degree of dependency. SSU management allows for short stays that reduce economic costs and avoid typical complications for prolonged stays. This is specially sensible considering both patients with chronic diseases that are exacerbated and acute diseases such as mild gastrointestinal bleeding.

G-75
CAUSES OF HYPONATREMIA IN INTENSIVE CARE UNIT PATIENTS: A RETROSPECTIVE ANALYSIS

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Objectives: Hyponatremia is defined as plasma sodium level to be below 135 mEq/L. It is a frequent finding and seen in 10-15% of the hospitalized patients. In this study, we aimed to retrospectively investigate the patients with hyponatremia during the admission or hospital stay in the intensive care unit.

Material and method: The study included a total of 107 patients that were detected to have hyponatremia and admitted in intensive

care unit for a variety of reasons between 01 January 2011 and December 31, 2011. The mean age of patients was 70.5 ± 14.3 years. Of patients, 57.9% (62) were male. The medical records of these patients were assessed retrospectively. Patients were divided into groups according to hyponatremia levels: 125-134 mEq/L as mild hyponatremia, 115-124 mEq/L as moderate hyponatremia, and < 115 mEq/L were grouped into severe hyponatremia. SPSS 15.0 was used for statistical analysis.

Results: Among the severe hyponatremia cases, 2 of 3 patients (66.7%) had hypervolemic hypotonic hyponatremia due to heart failure and acute renal failure, 1 patient (33.3%) had hypovolemic hyponatremia due to diuretic use. Of the moderate hyponatremia cases, 8 of 29 patients (27.6%) had normovolemic hypotonic hyponatremia which was due to SIADH (6 patients), tricyclic antidepressant medication (1 patient), and pituitary insufficiency (1 patient); 16 of 29 patients (55.2%) had hypervolemic hypotonic hyponatremia because of heart failure (10 patients), acute renal failure (5 patients) and chronic renal failure (1 patient); 4 patients (13.8%) had hypovolemic hypotonic hyponatremia due to use of the diuretic drug; one patient (0.04%) had isotonic hyponatremia which was found to be related to hypertriglyceridemia. Of the mild hyponatremia-75 patients, 50 (66.7%) had hypervolemic hypotonic hyponatremia that was due to heart failure (24 patients), cirrhosis (4 patients), acute renal failure (18 patients), chronic renal failure (4 patients); 14 patients (18.7%) had normovolemic hypotonic hyponatremia due to SIADH (11 patients), hypothyroidism (3 patients); 7 patients (9.3%) had hypovolemic hypotonic hyponatremia due to use of diuretics (3 patients), sepsis (1 patient), dehydration (1 patient); 4 patients (5.3%) had hypertonic hyponatremia found to be due to hyperglycemia. When the causes of hyponatremia in patients who died during hospital stay were considered, 39% of patients had heart failure, 17.1% had SIADH (usually associated with malignancy), 17.1% had acute renal failure and 26.8% had other causes.

Discussion: As a result, after the etiological evaluation, 63.6% of these patients had heart failure, cirrhosis, acute renal failure and chronic renal failure which are the cause of hypervolemic hypotonic hyponatremia. In internal medicine intensive care clinics, fluid and electrolyte balance, evaluation and treatment of comorbid diseases and causes of hyponatremia is an important factor.

Conclusions: In internal medicine intensive care clinics, fluid and electrolyte balance, evaluation and treatment of comorbid diseases and causes of hyponatremia is an important factor.

G-76
PROFILE OF CEREBRAL BIOACTIVITY IN PATIENTS WITH VIRAL HEPATIC DISEASES

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Objectives: The patients with viral hepatic diseases may record modifications in cerebral bioactivity. Aim: observation the profile of brain modifications in viral hepatic diseases.

Material and method: The study was conducted on 80 patients with viral (B and C virus) hepatic diseases (hepatitis and cirrhosis) to whom were recorded visually evoked potential (VEP) and electroencephalography (EEG).

Results: Precise information about affectation degree in viral hepatic disease can be obtained with quantifiable methods (VEP and EEG). Variation of VEP wave's parameters was influenced by the increase of waves latency up to 119% and timing up to 48%, amplitudes being reduced to 55% of normal, the surfaces reduced to 48% and sharpness (speed of amplitude growth) reduced through wave's aplatisation to 52%. The most important modifications were suffered by the differences in cerebral answer between eyes (increase to 480%). EEG was undervolted or plane, rich in rhythms or with three phased waves.

G-77
PRESCRIPTION OF FLUORODEOXYGLUCOSE POSITRON EMISSION TOMOGRAPHY IN THE INTERNAL MEDICINE UNIT: A MULTICENTRIC STUDY ABOUT THE FRENCH EXPERIENCE

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Objectives: [(18) F] Fluorodeoxyglucose positron emission tomography (FDG PET) is a functional imaging developed for oncologic investigations. Recently, the use of FDG TEP increased for clinical solving problem and non oncological diseases in internal medicine department, as unexplained fever and lymphadenopathy, vascularitis and several inflammatory diseases. To describe the current motivations for FDG TEP prescription in internal medicine clinical practice. Secondary objectives were to identify the motivations of prescription in which FDG TEP had the best performance to make a positive diagnosis for a non oncological indications.

Material and method: We conducted a prospective, multicentric study within 20 French internal medicine departments. During a period of six months, all consecutive patients who underwent FDG TEP for a non oncological indication were included The indication of the exam was collected at inclusion (before FDG TEP). After TEP was performed, radiologist conclusion as well the critical biological and histological exams practiced in order to obtain the definitive medical diagnosis were collected.

Results: 166 patients were included (92 males, 74 females) with a median age of 60 years old (18-88). Twelve FDG TEP were not performed (6 patients lost to follow-up, 4 patients for too long delay, one person on pregnancy, one refused the exam Among the 154 FDG TEP performed, main motivations were: unexplained inflammatory syndrome (n = 38), clinical status impairment (n = 30), unexplained lymphadenopathy (n = 28), fever of unknown origin (n = 25), vascularitis (n = 19) and infectious diseases (n = 18FDG TEP showed frequent abnormalities (n = 120/154; 78%). FDG TEP was considered by the practitioner as a decisive exam for the final diagnosis among 56 cases (34%), directly or by directing further exams such as biopsy or biological assessments.

Discussion: FDG TEP prescriptions increased for difficult clinical case solving in internal medicine. Nevertheless there is no published study leading to guidelines for TEP prescriptions in non oncological diseases, The performance of the exam was modest in our study; TEP leading only to 34% of positive diagnosis. Our results are preliminary, but more statistical studies are now necessary to find the clinical motivations of prescription where TEP has the best performance to find a correct a final diagnosis.

Conclusions: FDG TEP appears to become a useful tool for the internists with complicated clinical case solving. Its indications are not well codified yet but should be studied in some precise clinical situations. Several studies about efficiency and relevance of such examination in internal medicine diseases should be performed to assess its usefulness.

G-79
EPIDEMIOLOGY OF DIABETES MELLITUS IN THE AMBULATORY HIV CLINIC OF A COMMUNITY HOSPITAL IN THE SOUTH OF PORTUGAL.

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Objectives: Epidemiological characterization of DM in a population of HIV infected persons under antiretroviral therapy (ARV-T) with evaluation of immunological, virological and metabolic control, therapy interactions and incidence of vascular events and death.

Material and method: We conducted a descriptive transversal study in our HIV patients who are under ARV-T and have incident DM. Demographic and clinical data were registered and analyzed in Excel DataBase.

Results: We had until 31/12/2011 480 HIV patients in our clinic under ARV-T, 16 (3.3%) has DM (88% DM type2) DM preceded the diagnosis of HIV infection in 4 patients (25%) all of them were DM type 2. Mean age is now 54 years (42-75), with a mean time since HIV diagnosis of 11 years (1-23) and 9 years (1-24) since DM diagnosis. The mean time since the beginning of ARV-T is 9 years. Other associated vascular risk factors were arterial hypertension (81%), dyslipidemia (81%), smoking (69%) and obesity (31%). Five patients were coinfected with HCV, and 2 of them developed DM type 1 during the follow up care. The ARV-T included 2 nucleosides in all patients, associated to a non-nucleoside in 8, to a protease inhibitor in 6 and an integrase inhibitor in 2 patients. Concerning anti-hyperglycemic therapy (AHT), insulin is now being used in 6 of the patients with DM type 2. The most frequently oral agent was metformin, alone or associated with other oral agents or insulin. The mean CD4 at HIV infection diagnosis was 348 cells/mm^3 (12-1496) and is now 512 cells/mm^3 (209-975) and 87% of the patients have now undetectable viral load. The mean glycated hemoglobin is now 7.9% (5.1-12.4%) with a mean seric creatinine of 0.86 mg/dl. No interactions leading to a change in medication, both ARV-T or AHT were reported. There were 8 vascular events in 5 patients, no deaths were reported: 4 retinopathy, 1 terminal chronic renal disease, 1 coronary disease, 1 peripheral arteriopathy.

Discussion: Disorders of glucose metabolism have been associated with HIV infection and treatment. The estimated incidence of Diabetes Mellitus (DM) in these patients ranges from 1 to 10% in various studies. In our patients DM was mostly diagnosed during follow up of HIV chronic infection, including 2 cases of type 1 DM in patients coinfected with HCV. In general all patients had a good immunological, virological and metabolic control and there were no relevant interactions between ARV-T and AHT, but almost half of type 2 DM patients needed insulinotherapy and one third of all patients had already a major vascular event. Maybe this was related to insufficient control of the other vascular risk factors, which should be further investigated.

Conclusions: As patients grow older in HIV clinics it is important to include in the regular care of this patients continuous education for a healthy style of life, with rigorous surveillance and control of all vascular risk factors, including early diagnosis of DM.

G-80
NON-CLINICAL MORTALITY PREDICTORS IN AN INTERNAL MEDICINE WARD

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Objectives: Many comorbidity indexes are currently used to predict inpatient mortality risk (MortR). Nevertheless, the majority of these indexes contemplate only clinical data, failing to acknowledge the impact of social and demographic factors. The authors aim to demonstrate the impact of non-clinical data in predicting mortality in an Internal Medicine ward.

Material and method: Retrospective case-control study. Data was collected from the medical charts of the 211 patients who died in this Internal Medicine ward during 2011 (cases). These cases were paired for sex and age with discharged patients from the same Internal Medicine ward (controls) during the same period. For Odds Ratio (OR) calculation statistical significance was considered when $p < 0.05$, with a confidence interval (CI) of 95%.

Results: The average age was 80.2 (± 11.81) years, being 66.4% of the cases very elderly. 58.8% (124) of the cases were men. 24.6% (52) of the cases were institutionalized, with this representing a higher MortR (OR 1.645, CI 1.018-2.655, p 0.041). 34.6% of the cases were dependent in their daily life activities and 25.6% (54) were confined to bed, which also led to an increased MortR (OR 2.811, CI 1.652-4.786, p 0.000). The cases presented with an average of 0.5 (± 0.89) previous admissions (past 6 months), significantly higher than the controls (0.3 ± 0.61 previous admissions). Having a previous admission also increased the MortR (OR 1.834, CI 1.195-2.815, p 0.005).

Discussion: The cases in this study had an average age 3 to 5 years higher than in other mortality epidemiological series from the same country. There was also an important dominance of very-elderly patients, which may magnify the impact of the studied factors. As multimorbidity increases with age, the authors believe so does the patients' vulnerability to social and epidemiologic factors. The results suggest that the institutionalization, the limitation to bed and previous admissions signal an increased mortality risk in the patients admitted to this Internal Medicine ward.

Conclusions: The authors consider important to further validate these findings in a wider population. Since non-clinical factors, as the patient's institutionalization, level of daily life dependency and previous admissions, seem to have a significant impact in the MortR, its addition to the existing common-use comorbidity indexes should be considered. As the holistic view of the Internal Medicine patient must not neglect its social aptitude and the burden of epidemiologic factors, the authors suggest a revision of the present approach to mortality risk assessment.

G-81
PREVALENCE OF ALCOHOL USE DISORDERS AND ALCOHOL RELATED DISEASE AMONG MEDICAL INPATIENTS IN EUROPE. ALCHIMIE STUDY PHASE II DATA

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Objectives: Unhealthy alcohol use is common in medical inpatients hospitalized for reasons not alcohol related. The spectrum and rate of detection of unhealthy alcohol use, including alcohol use disorders (AUDs) and other alcohol related diseases (ARDs) is not well known. The aim was determine the prevalence, spectrum and rate of detection of AUDs and ARDs among medical inpatients across Europe.

Material and method: Participants were medical inpatients from 38 European hospitals who screened positive and underwent clinical evaluation for unhealthy alcohol use and consented to have their medical records reviewed to detect AUDS and ARDs.

Results: We screened 2,123 inpatients [1,115 (52%) men; mean age (SD) 67.9 ± 17.3 years]. Overall, 343 screened positive and 301 (14%) patients had unhealthy drinking patterns. There were 280 patients who gave their consent [220 (79%) men; mean age (SD) 60.6 ± 15.9 years]. Reasons for admission were not alcohol-related 216 (77%), acute intoxication 5 (2%), withdrawal 12 (4%), alcohol related acute-disease 29 (10%), acute decompensation of alcohol-related chronic disease 18 (6%). Alcohol use was not evaluated in the admission note in 100 (36%) of patients, and it was properly documented in 71 (25%) cases. Documentation of AUDS was 32 (48%) of 67 dependent patients, 25 (44%) of 57 harmful drinkers and 21 (22%) of 94 risky-drinkers. Overall 161 (57%) had ARDs at admission, and 50 (18%) patients had a new alcohol related diagnosis in the discharge note. Most frequent ARDs reported in discharge note were: arterial hypertension 76 (%), hepatic steatosis 44 (16%), hematological disorders 44 (16%), hepatic cirrhosis 31 (19%), stroke 18(6%), and alcoholic cardiomyopathy 12 (5%).

Discussion: Our study shows that AUDs are frequent in hospitalized patients, and these patients had often associated ARDs. Despite the prevalence and impact of unhealthy alcohol use in medical inpatients documentation of alcohol use and AUDs in discharge notes is infrequently performed, particularly in patients with less severe patterns. Even patients with ARDs had rarely documented alcohol use and AUDs in admission and discharge notes. Study limitations include: AUDs were evaluated by self-report; the presence of ADRs was calculated according to medical records review. Prevalence for both might had been underestimated Study strengths were: significant number of patients from a variety of hospitals in Europe screened with standardized tests and clinical evaluation of unhealthy patterns.

Conclusions: Detection of unhealthy alcohol use and management of patients with AUDs and ARDs was sub-optimal. An effort should be done to improve detection and documentation of AUDs in medical inpatients.

G-82
ASSOCIATIONS OF HYPERGLYCEMIA AND EARLY COMPLICATIONS OF ACUTE CORONARY AND STROKE EVENTS

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Objectives: An analytic, longitudinal and prospective study was carried out on a cohort of two hundred patients suffering from acute macrovascular afflictions who were treated at the coronary and ictus unit of "Hermanos Ameijeiras" Hospital in the period 2010 – 2011. The main goal was to assess whether there was a relationship between the hyperglycaemia and any other immediate complication after an acute macrovascular events.

Material and method: Blood tests and glycaemia were taken from all patients when admitted to hospital both under admission, fasting and postprandial conditions, glycosylated hemoglobin (HbA1c). In order to analyze the data summary measurement and standard deviation (SD) were used, as well as the Student t test in order to compare the mean value of different time of glycaemias and complications.

Results: 18% of the sample presented complications. The group of patients with complications in coronary setting showed an average increased of glycaemia at fast (p = 0.012), postprandial (p = 0.001) and admission (p = 0.009), compared with the group without complications. HbA1c was associated with complications in this group of patients too (p = 0.003). The group of brain vascular events only showed an associations of complications with a more mean value of glycaemias at admission (p = 0.016) and no associations with higher mean value of fasting (p = 0.232) postprandial (p = 0.567) glycaemias, as well as HbA1c (p = 0.159).

Conclusions: We conclude that the disorders of glycaemia under fasting and postprandial are associated with early medical complication after afflictions at coronary territories, which were different in the brain vascular events.

G-83
INCIDENCE AND TEMPORAL VARIABILITY OF EMERGENCY DEPARTMENT VISITS FOR HYPERTENSION

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Objectives: To determine the incidence and the temporal distribution of emergency department (ED) visits directly related to hypertension (HT) and its complications.

Material and method: Based on the computerized medical records of all assisted processes in the ED of our hospital for any cause during four consecutive years (from January 2008 to December 2011), and in preserving patients anonymity, we collected information on the age, sex, first-listed diagnosis (which was subsequently coded according to ICD-9 MC, using an application software developed by our Clinical Documentation Dept.), date and entry time of all patients attended. All these variables were imported into a database and, using the computer program SPSS® 15.0, we conducted a descriptive study and a statistical data

Table 1 (G-82). Acute Coronary Syndrome

Glycaemia mmol/L	Complicated mean	Not complicated mean	p value
Admission	11.76 SD:5.83	7.89 SD:2.79	0.009
Fasting	8.85 SD:4.90	5.81 SD:1.24	0.012
Postprandial	10.19 SD:3.09	7.56 SD:	0.001
	n = 20	n = 80	

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Table 2 (G-82). Stroke

Glycaemia mmol/L	Complicated	Not complicated	p value
Admission	11.67 SD:5.07	8.12 SD:3.89	p = 0.016*
Fasting	7.51 SD:2.77	6.56 SD:3.03	p = 0.232
Postprandial	8.77 SD:2.98	8.31 SD:2.35	p = 0.567

analysis, with the objectives set out, for patients who presented hypertensive disease as main reason for attendance (ICD-9 MC codes 401 to 405).

Results: The total number of patients visiting our ED from all causes during the study period was 401678. The patients mean age (± standard deviation) was 43.7 ± 21.4 years and 50.3% were women. Among the total assisted, 3716 patients (0.93%) were primarily because of HT. Of these, 2,274 (60.8%) were female, with a mean age 65.5 ± 14.3 years and 1,463 (39.1%) were men with a mean age of 58.9 ± 14.9 years ($p < 0.001$). There was a progressive increase in the age-specific prevalence with advancing age, especially in women, and 56% of the patients attended for HT were older than 60 years. Season with highest HT patients demand was winter (from December to February) with a 29.2% (December was the month of highest incidence [12.7%]) and the lowest was summer (June-August) with 18.5% (August had the lowest [5.5%]). Mondays was the day of peak demand by HT (16.4%) and Saturdays with the lowest (12.1%). The incidence was maximum from 19 to 24 hours with 36.6% of cases, while less than 7% were attended between 2 am and 8 am.

Discussion: Blood pressure has a high temporal variability and the chronobiology opens new perspectives for its study as a result of a better knowledge of their biological rhythms.

Conclusions: HT, as main consulting reason, has a relatively importance in hospital emergencies, especially among women and those over 60 years old. Major differences are shown in attendance between different months of the year, days of the week and hours of the day, which are to be explained.

G-84
TEN-YEARS TRENDS IN MANAGEMENT OF HOSPITALIZED PATIENTS WITH ACUTE CORONARY SYNDROME AT A REFERENCE HOSPITAL

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Objectives: Social changes and development over last years have led to increment in life expectancy. At the same time, there have been important improvements in the management of patients with acute coronary syndrome (ACS), mainly in the field of percutaneous coronary intervention (PCI). The aim of our study was to analyze the changes at baseline characteristics, therapeutic management related variables and in-hospital outcome in patients admitted with ACS to our center over the past 10 years.

Material and method: We performed a retrospective study that included 8,463 consecutive patients hospitalized with ACS diagnosis. We divided the patients into 2-year periods according to the date of admission in order to analyze changes in the variables along the time (table).

Results: The prevalence of the different basal cardiovascular risk factors and the average age of the patients (68.1 ± 12.5 years) admitted for ACS remained constant over the ten-year study period. The prevalence of patients over 75 years (> 75 y.o.) admitted with ACS slightly increased during the last years. In addition, the proportion of patients undergoing percutaneous coronary intervention (PCI) has increased, mainly in the elderly. The prevalence of female gender hospitalized due to ACS remained the same over the study period (31.3%), although we did not observe an increase of the invasive therapeutic management in this population, in line with previously published studies. In relation to ST elevation (STE) ACS therapeutic strategy, the percentage of patients who underwent urgent PCI increased as well as the thrombolytic therapy use progressively decreased, even in elderly patients. Radial access has become the elective vascular access for PCI in ACS in all the subgroup of patients. We observed decreasing mortality rates for all subgroups of patients, although it remains higher among women and > 75 y.o.

Conclusions: There have been important changes in the management of patients hospitalized with ACS over the past years. The prevalence of PCI increased during hospitalization even at elderly patients. The changes have produced a higher survival rate and a shorter hospital length of stay. However mortality remains high in some subgroups of patients such as elderly and women. The increased use of PCI may reduce mortality in these patients in the future.

G-85
ELECTROLYTIC DISORDERS IN COLONOSCOPY PREPARATION IN AN INTERNAL MEDICINE SERVICE

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Objectives: The main target was to assess potential kidney failure, metabolic and ionic disturbance during the colonoscopy preparation. The different preparation procedures also were evaluated in order to check the possible induced alterations.

Material and method: It was a descriptive study. It included a sample of the whole inpatients in Internal Medicine III from October 2011 to April 2012 to whom a colonoscopy was indicated. All clinical data patients were recorded and information about the preparation process and product used. The following data were also collected: glucose, creatinine, sodium, potassium, chloride, calcium, phosphorus. These data were collected three times: basal, the day before and the day after the colonoscopy.

Results: It was done 43 colonoscopies. 52% were men and 48% were women. The age average was 68.67 ± 17.53 years. The reason to indicate the colonoscopy was: 37% bleeding, 33% constitutional syndrome, 19% anaemia, 9% constipation, 7% diarrhoeas and 2% abdominal pain. The colonoscopy results were 21% diverticulosis, 21% haemorrhoids, 16% colon cancer, 2% volvulus, and 12% did not show disease. The colonoscopy objective was diagnostic in the 60% of the cases, 35% diagnostic and therapeutic and in the 5%

Table 1 (G-84). Trends in different variables over time by two-years periods in patients admitted with ACS

2-years period	Age > 75 y.o.	PCI	PCI in > 75 y.o.	Dead	Dead in > 75 y.o.	Dead in women	Length of stay (days)
2002-2003	31.4%	53.6%	36.0%	6.5%	10.9%	8.6%	11.8 ± 8.4
2004-2005	31.7%	61.8%	45.2%	6.2%	12.1%	7.7%	8.8 ± 5.5
2006-2007	35.6%	62.6%	49.7%	4.1%	5.8%	6.1%	7.8 ± 5.5
2008-2009	39.9%	66.8%	55.6%	3.5%	6.5%	4.9%	7.5 ± 5.3
2010-2011	33.4%	66.3%	55.0%	3.6%	6.4%	4.1%	7.1 ± 5.3

incomplete procedure was performed. We had the next complications: one patient suffered bleeding, another perforation and the last one a splenic laceration. We had not any complications in the 94% of the patients. The preparation was made with magnesium citrate (Citrafleet®) in 34%; 34% polyethylene glycol (Bohm evacuating solution®) and 33% with phosphates (Fosfosoda®-Fosfoevac®).

Discussion: We found a high average age in our sample. This point has a strong influence on potential complications when a colonoscopy is performed. In fact there are a lot of diseases or chronic conditions which can be decompensated by the preparation or the procedure itself. The most of the colonoscopy were performed due to bleeding or constitutional syndrome. These conditions grow the likelihood to diagnosis a serious disease. In relation with this point, we found a 16% of colon cancer what is a high rate. We obtained a similar complications rate than other studies. The most important and common is the perforation of colon, especially in elder people who have a increased fragility of the colonic mucosa. When we have studied the biochemical disorders, we found that the three preparation procedures are not significantly different, with the exception of phosphates solution which has demonstrated a statistically significant phosphorus raise and clinically relevant (0.7 mg/dL).

Conclusions: The colonoscopy is a procedure done to elder people group mainly. This circumstance leads to a non-negligible complications rate both in the preparation as in the procedure itself. It is indicated frequently due to bleeding or constitutional syndrome. There are many diagnoses but there is a high rate of neoplasias. The main preparation procedures are magnesium citrate (Citrafleet®), polyethylene glycol (Bohm evacuating solution®) and phosphates (Fosfosoda®-Fosfoevac®). There were no statistically significant alterations for glucose, renal function, sodium, potassium, chloride and calcium during the preparation. It was obtained a significant increase of phosphorus with de phosphates solution, not currently in use.

G-86
COMPARATIVE VARIABILITY OF CLINIC ASSISTANCE PATIENT PROFILE DESCRIPTIVE ANALYSIS OF HOSPITALARIAN URGENCY SERVICE ASSISTED BY 2 INTERNAL MEDICINE RESIDENT (IMR) DURING HIGH AND LOW ASSISTANCE PERIODS

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Objectives: Describe clinic basic patient profile assisted on a hospitalarian urgency office by two IMR during high and low assistance period in our centre.

Material and method: Transversal descriptive study, in which were included patients who assisted to an urgency office during two days first of February, -Fb- (high assistance period) and other two at lasts of April – Ap- (low assistance period) on 2012. Studied variables: age, sex, time spent on assistance, complementary tests and development.

Results: Total patients: 89 (50 Fb/39 Ap). Age between 5 months and 96 years old, 62% men, average time spent 3h 28 min with a maximum of 8h 49 min –Fb-, and the minimum 12 min – Ap-. Complementary tests Ap: lab test 61%, Fb, X- Rays 60.53% - Fb-, EKG 62.5% Fb, 2 TC and 2 Ecography equal number. 22.47% were discharge to specialist (20.51% Ap). Hospitalized 10% Fb (5.13% Ap).

Discussion: Assistance pressure on Urgency Service used to be high and carried by IMR on our centre. Clinic changes during high and low assistance period, identify high assistance period as: most men, wide age range, more time spent, more tests and hospitalizations, specialist discharge and less primary attention discharge. Here the global view done by IMR makes him able for a qualify management of these pluripathology patients.

Conclusions: Most professional who carry on the Urgency Service are internal medicine doctors. It is true there is a great difference between patient profiles assisted during high or low assistance period. IMR job is essential for a complete management of this kind of patients and pathologies.

G-87
CONSTITUTIONAL SYNDROME ON AN INTERNAL MEDICINE HIGH RESOLUTION CONSULTATION OFFICE (IMHRCO) ON A SPECIALIZED HOSPITAL FROM SAS

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Objectives: IMHRCO is a choice beside hospitalization, which improves patient's access and contorts, avoiding hospitalization. The aim is recognize efficiency of this kind of service provided with a unit for high resolution and early diagnosis without need hospitalization on potential serious entities.

Material and method: Transversal chart study review of patients assisted on IMHRCO being apply constitutional syndrome criteria, between first of April 2011 and 30 April 2012. We made up a protocol to create a database including: sex, age, pondered weight lost, start date, etiology, hospitalization required and time spent on diagnosis.

Results: They were included 146 patients, 97 men 49 women (age between 15 and 93). Average age 49.6. Average pondered weight lost was 8.6%, from basal weight. Main etiology was neoplasia: 71 patients (48.63%), 35 (49.29%) digestive (20 colonic (28.16%), 11 stomach 15.49%) and 4 esophagic (5.63%)), followed by lung neoplasia 14(19.71%), pancreatic 8 (11.26) and breast 6 (8.4%). 64.78% neoplasia was advanced or with local infiltration. Second etiology was infectious, 32 patients: TBC 8 (25%), AIDS 6 (18.75%), zoonotic disease 6 (18.75), BHV/CHV 3 (9.37%), other 9 (28.18%). Digestive pathology, 12: 5 IIP (41.66%), 5 malabsorption (41.66%). Metabolic 11 (7.53): 6 hyperthyroidism and 5 diabetic debut. Toxic 11 (7.53%) considered 8 chronic alcohol abuse and 3 drug dependence. 7 psychiatric (4.79%): 4 anxious-depressive disorder (57.14%), 3 nutritional disorders. Miscellany 20 (57.14%) including heart failure, drugs and idiopathic. 12 patients needed hospitalization (8.21%). Average time spent on hospital was 18.7 days.

Discussion: We noticed a high neoplasia presence (most advanced or with local infiltration) and infectious chronic process as hidden reason for constitutional syndrome. Other pathologies: IIP, metabolic and toxic reasons. Patient's percent who required hospitalization was low, 8% on their own interest. Average time spent on diagnosis was on range, consider high neoplasia incidence and it difficult diagnosis.

Conclusions: Constitutional syndrome requires special attention, high percent, related with serious entities. Neoplasia and chronic infectious disease are frequent reasons for it. IMHRCO it is an efficient and early diagnosis, associated with contort choice to avoid hospitalization and reduce administration cost for avoidable hospitalizations.

G-88
ARE GOALS ACHIEVE CONTROLLING LIPIDS LEVELS BASED ON RECOMMENDED RANGE BY THE AMERICAN HEART ASSOCIATION ON PATIENTS WITH PREVIOUS ACUTE CORONARY EVENTS? SECOND YEAR INTERNAL MEDICINE RESIDENT EXPERIENCE THROUGH CARDIOLOGY DEPARTMENT

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Objectives: It is not a noticed the importance of lipids level range control as a secondary prevention measure on high cardiovascular risk patient. Our aim is recognize level achievement on patients with previous acute ischemic coronary events.

Material and method: They were included patients hospitalized on Cardiology Service during 2011. Descriptive chart study was made up. Studied variables: dyslipidemia, Lipid levels: triglycerides TG, cholesterol CO, LDL-C, HDL, HDL cholesterol ratio, during hospitalisation or 3 previous months.

Results: 392 patients were included. Dyslipidemia appears on 50% cases. Lipid levels: TG (134.651 ± 10.715), CO (179.738 ± 4.018), LDL-C (99.94 ± 3.3263), HDL (41.811 ± 1.212), HDL cholesterol ratio (4.313 ± 0.146).

Discussion: Analysis data prove lipids level is higher compared to goal level range recommended by AHA on coronary patients. Higher TG levels 34.737%, CO 33.5%, LDL-c 25.1% and lower HDL levels 42.934% form patients included. In spite of, recommended levels are not achieve, as cardiovascular risk factor.

Conclusions: It is important to determinate and achieve adequate measures to prevent cardiovascular risk on our patients. Clinic practice guidelines determinate correct levels to achieve. It is also important to monitorize and control cardiovascular risk, where lipids control is essential to improve cardiovascular risk and to prevent new ischemic events.

G-89
CLINICAL PROFILE OF PATIENTS WITH CHEST PAIN AND NO SIGNIFICANT LESIONS AFTER PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY (PTCA)

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Objectives: Our goal is to determine the clinical profile of patients who presents atypical chest pain and after PTCA no significant lesions.

Material and method: We made a descriptive study that included patients admitted with chest pain who had no coronary lesions after PTCA in 2011. Study variables: age, sex, medical history (hypertension, dyslipidemia, knew heart disease, antiplatelet therapy, atrioventricular block and/or a pacemaker, atrial fibrillation resulting in hemodynamic angina, PTCA).

Results: Total patients admitted, 392, being 10.4% of patients who had PTCA without significant findings. Mean age was 59 years. Gender: female 69%. Main clinical characteristics: hypertension (57.1%), no history of unknown origin dyslipidemia (71.43%), no history of previous heart disease (71.4%), previous antiplatelet therapy (80.95%), diagnosed of AV block with or without pacemaker implantation (35.71%), hemodynamic angina by the presence of atrial fibrillation with rapid ventricular response (16.67%), scheduled PTCA (14.21%).

Discussion: In our study, patients with chest pain who had non-significant findings in the PTCA are usually women of about 60 years (postmenopausal period) and less cardiovascular risk factors (hypertension, dyslipidemia).

Conclusions: The presence of cardiovascular risk factors is lower in patients with chest pain and no significant lesions in the PTCA. The work of Internal Medicine physician is essential when a comprehensive approach to these patients.

G-90
INCIDENCE OF TAKO-TSUBO VENTRICULAR DYSFUNCTION OR DISEASE IN A SPECIALTY HOSPITAL IN THE SAS. SHOULD WE TAKE THIS INTO ACCOUNT IN PATIENTS WITH ATYPICAL CHEST PAIN? EXPERIENCE OF A SECOND-YEAR RESIDENT IN INTERNAL MEDICINE AT THE ROTARY AT THE DEPARTMENT

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Objectives: The Tako-Tsubo syndrome is a clinical entity that shows changes similar to those produced by acute coronary syndromes, both in clinic and analytical sphere. This process is characterized by showing acute chest pain, cardiac enzyme elevation and anterior akinesia, but no significant alterations occur in coronary vessels and recovery of segmental dysfunctions in a no specific period of time (weeks or months) in patients affected.

Material and method: From the MBDS registry of our hospital inpatients, were selected those with Tako-Tsubo diagnosis in 2011. Study variables: patient's clinical profile (sex, age, cardiovascular risk factors, previous heart disease, clinical presentation) complementary tests (analytical cardiac enzymes, ECG, echocardiography, percutaneous transluminal coronary angioplasty (-PTCA-), clinic outcome.

Results: 3 patients were collected from 429 patients of a 300.000 population, with the next ages: 53. 68 and 72 years. No history of cardiovascular risk factors was found in two of those patients studied. In the third one we realised that he presents hypertension and type 2 diabetes mellitus. None of the patients had a history of cardiac disease. The clinical presentation was oppressive chest pain with elevation of cardiac enzymes (CPK, CPK-MB and troponin) with presence of elevated ST segment in precordial derivations of their ECG, that broke in within 48-72h after admission. In all 3 cases proceeded to percutaneous transluminal angioplasty, with no need of acute stent implantation in that income. Reduced EF was found in all patients at this time. In one case where it made a drug-eluting stent implantation by sinuous anterior descending artery dating as AMI, presenting ventricular apical akinesia, which improved spontaneously after performing echocardiogram. Evolution: echocardiogram was performed within 2-3 months showing normalization of ventricular mobility in all cases.

Discussion: In our study, patients were males with age range 53-72 years, no history of underlying heart disease, most did not require implementation of Stens after PTCA, ventricular apical akinesia recover within 3 months.

Conclusions: In the differential diagnosis of atypical chest pain is important to note the Tako-Tsubo syndrome and also generally have a good prognosis.

G-91
PATIENT CLINIC PROFILE REFERRED FROM EMERGENCY DEPARTMENT TO INTENSIVE VIGILANCE SERVICE (IVS) ON A SPECIALIZED HOSPITAL FROM SAS

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Objectives: Recognize clinic and epidemiology profile from patients hospitalized on IVS, on our centre, referred from Emergency Service, during 9 months, between 2011 and 2012.

Material and method: Descriptive chart study, they were included 225 (38.2%) patients referred from Emergency Service about 330 total patients hospitalized on IVS during that period. Studied variables: age, sex, reason for hospitalization, time spent on IVS, toxic habits, cardiovascular risk factors, other pathologies and discharge diagnosis. Analysis was done by SPSS 15.0 statistic programme.

Results: Average age 60, 71.6% men, 28.4% women. Cardiovascular risk factors, considered smoking 16% did smoke before 5.8%, chronic alcoholism 20.4%, ex- alcohol addicted 0.9%. 34.2% DM, 28% hypertension, 24.9% dislypemia, 14.7% obesity. 53.3% diagnosed for Ischemic coronary syndrome, 40% COPD and 21.8% heart failure. 5.8% suffered ischemic stroke before, 8.4% renal chronic failure. Main reason for hospitalization was ischemic coronary syndrome on 45.8% followed by stroke 5.8%, shock 5.7% and respiratory failure 4.4%. Average time spent on IVS was 3.74 days, discharge diagnosis: acute ischemic coronary syndrome 55.3%, serious respiratory infection 4.4%, hemorrhagic stroke 2.7%, ischemic stroke 2.7%, digestive hemorrhage 2.2% and percutaneous transluminal coronary angioplasty (PTCA) 1.3%. Referral Services were Cardiology 63.9%, Internal Medicine 17%, Neurology and Neumology both 4.6% and 4.1% each. Reaming other.

Discussion: Patient profile hospitalized on IVS referred from Emergency Service: men, 60 years old, smoker, cardiovascular risk factors, and previous ischemic cardiopathy disease hospitalized for acute ischemic coronary event which needs a hemodynamic specialized treatment. Stroke patients also, less percent, without losing atherosclerosis relation. Time spent is short and main referral service: Cardiology followed by Internal Medicine, probably because of multimorbidity and difficult management. Results are not different from main morbidity and mortal pathologies on medium age. First assistance is done by Emergency Services on more than 50%, by internal medicine professionals.

Conclusions: It is important to consider correct management of these patients, starting on Emergency Service by Internal medicine professional. Internal medicine professional global view makes him able to deal and well manage these patients.

G-92
PATIENTS WITH PROLONGED FEVER REFERRED TO A QUICK DIAGNOSIS UNIT: PREDICTORS OF HOSPITAL MANAGEMENT IN A TERTIARY HOSPITAL

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Objectives: Background: Patients with prolonged fever are becoming frequently sent to the Quick Diagnosis Unit for diagnosis. Some of these patients, after being visited in our Unit, require hospital admission or consultation with other specialized Departments from our hospital. Predictors for hospital management will help us improve the circuit performance of this Unit and the rest of Departments involved. Objectives: To analyze the mean time to the final diagnosis and the number of visits required in patients with prolonged fever referred to the Quick Diagnosis Unit. Main departments of referral after diagnosis and to analyze the predictors of hospital management defined as admission or consultation with specialized departments from a tertiary hospital.

Material and method: We studied 188 patients referred to the Quick Diagnosis Unit for prolonged fever from November 2008 to September 2011. All patients were evaluated retrospectively.

Results: Mean time to final diagnosis was 21 days (0-151). One hundred and seventy patients required 2 visits, 80 needed 3 visits, 30 required 4, 8 required 5 and 4 patients needed more than 5 visits to achieve the final diagnosis. The main diagnoses were infectious diseases in 113 (60%) patients, autoimmune diseases in 19 (10%) and neoplasia in 3 (2%) patients. When the final diagnosis was reached, 142 patients (75%) were referred to their primary care center, 36 patients (19%) were referred to specialized Departments of our tertiary hospital and 3 patients (2%) required hospital admission. Seven patients were lost to follow-up. Of the 36 patients who required specialized referral after diagnosis, 7 (19%) were referred to rheumatology, 5 (14%) to the systemic autoimmune diseases department, 4 (11%) to the infectious diseases department, and 3 (8%) patients to the nephrology, hematology and Chronic Fatigue Unit, respectively. The remaining 11 patients were referred to other hospital departments. Patients who required hospital management were older (48.38 years vs 43.48 years, $p = 0.095$), had a higher mean number of visits in our Unit (3.03 vs 2.52, $p = 0.024$) and had more frequently a newly diagnosed systemic autoimmune disease (36% vs 2%, $p = 0.000$) in comparison with patients who were managed in an outpatient basis.

Conclusions: A final diagnosis for patients with prolonged fever visited in the Quick Diagnosis Unit was achieved after a mean time of 20 days. Predictors for hospital management after being diagnosed included an older age, an increased number of visits in the Quick Diagnosis Unit and a final diagnosis of systemic autoimmune disease.

G-93
THE OPINION OF MEDICAL STAFF (SPECIALISTS, RESIDENTS) ON DOCTOR-FAMILY COMMUNICATION DURING AN EMERGENCY SITUATION IN A HOSPITAL BELONGING TO THE ANDALUSIAN HEALTH SERVICE

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Objectives: To gain knowledge of opinions concerning the communications existing between health professionals and family members during a grave clinical situation.

Material and method: Once the medical staff (consultants-cn/ and residents-rs) of the Intensive Care Unit (ICU) was selected, they were asked to complete the following questionnaire on communication skills: 1st question: Is it easy for relatives to find the ICU on the first day? 2nd: Are the family always informed of the clinical situation of their relatives when they are admitted? 3rd: Do you think family members understand the information received during the admission of their relative? 4th: Do you think that the family receives enough information concerning visiting hours, unit rules, etc. from the nursing staff on admission? 5th: Do you think the family should always receive information from the same doctor? 6th: Do you think that family members would rather sit down beside their relatives during visiting hours? 7th: What do you think the family-nurse relationship is like? (Very fluid, fluid, nonexistent). 8th: Do you think that the family receives help from the nursing staff to

facilitate communication with their relative? The results were analyzed based on the characteristics of a descriptive study.

Results: Total surveyed: 15 (10 cn/5 rs). 1st question: yes 25% cn/50% rs. 2nd: yes, 75% cn/25% rs. 3rd: yes, 75% cn/62% rs. 4th: yes, 88% cn, 100% rs. 5th: yes, 90% cn/50% rs. 6th: yes, 50% cn/75% rs. 7th. fluid, 90% cn/50% rs. 8th: yes, el 75% cn/100% rs.

Discussion: Doctor-patient-family communication and relations are complicated during situation of extreme gravity. Our study shows that the opinion of the cn is different from that of the rs as regards the following points: Information given to the family by doctors-nurses, continuous attention from the same doctor and the fluidity of nursing staff-family relations. It is necessary to work on these points adequately in order to improve our communications.

Conclusions: In the field of Internal Medicine and in the ICU we are faced with extremely grave clinical conditions in which it is necessary optimal doctor/patient/family/nursing staff relations, as well as to be trained in communication skills.

G-94
EPIDEMIOLOGICAL CHARACTERISTICS, REASONS FOR REFERRAL, DIAGNOSTIC PROCEDURES AND FINAL DIAGNOSIS IN 188 PATIENTS WITH PROLONGED FEVER ATTENDED IN A QUICK DIAGNOSIS UNIT

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Objectives: Background: Prolonged fever is a common cause for hospital admission. Since 2008, The Quick Diagnosis Unit has taken an important role in the diagnosis of prolonged fever, with the advantage of making quick diagnosis and reducing the large number of hospital admissions. Objectives: To analyze the epidemiological characteristics, reasons for referral, diagnostic procedures and final diagnosis in patients with prolonged fever referred to the Quick Diagnosis Unit of the Department of Internal Medicine.

Material and method: We studied 2232 patients visited in our Unit between November 2008 and September 2011. We investigated the epidemiological and clinical features, diagnostic procedures and final diagnosis in those patients referred for prolonged fever.

Results: One hundred and eighty-eight (8.4%) patients were referred for the study of prolonged fever, 98 were women (52%) and 90 were men (48%) with a mean age of 44.25 years (range 15-90). Patients were mainly referred by the emergency (53%) and primary care (37%) departments. The main diagnostic procedures included blood analysis in 174 patients (49 patients required 2 blood analysis and 7 required more than 2), microbiological cultures in 59, chest X-rays in 52, abdominal ultrasound in 33 and CT-scan in 20 patients. Final diagnosis consisted mainly of infectious diseases in 113 (60%) patients, autoimmune diseases in 19 (10%) and neoplasias in 3 (2%) patients. Six patients were lost to follow-up without diagnosis. The main infectious diseases included viral diseases in 68 (acute cytomegalovirus infection in 26, acute Epstein-Barr virus infection in 7, acute Parvovirus B19 infection in 3, primary HIV infection in 3 and non-specific viral infections in the remaining 29), bacterial infections in 44 patients (respiratory infections/pneumonias in 24, urinary tract infections in 9 and others in 11), parasite infection in 1 patient. The main autoimmune diseases diagnosed included vasculitis in 6, arthritis in 4, Mediterranean fever in 2 and Sjögren syndrome, SLE, Still's disease, inflammatory myopathy, retroperitoneal fibrosis, erythema nodosum and undefined autoimmune disease in 1 patient, respectively. Neoplasias diagnosed included lung adenocarcinoma, Hodgkin lymphoma and B-cell lymphoma in 1 patient, respectively.

Conclusions: Prolonged fever represents 8.4% of visits in our Quick Diagnosis Unit. Most patients are young women referred from the emergency department. Nearly two thirds of patients are diagnosed with infection, mainly with viral infections (cytomegalovirus and Epstein-Barr). Blood analysis, microbiological cultures and chest-X rays are the most common diagnostic procedures. Seventy-five percent of patients are further managed in primary care health centers.

G-95
CLINICAL PROFILE OF THE PATIENTS ADMITTED IN PSYCHIATRY WHO WERE INTERCONSULTED TO INTERNAL MEDICINE (IM) IN A HOSPITAL OF THE ASH

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Objectives: To know the clinical characteristics of the patients admitted in psychiatry who were consulted to IM.

Material and method: We included the consults proceeding from psychiatry, registered in the Unit of Clinical Management of IM of our hospital during four months of 2012. Variables of study: age, sex, number of reports per month, motive of consult. The results were analyzed on the basis of the proper characteristics of a descriptive study.

Results: Total of consults: 11 (16.2%). Middle Ages: 46 years (15 to 72 years), 73% men. 50% of these consultations carried out during January. The principal motive of consult was to discount the organicity in the patient with drowsiness or cognitive deterioration not justified by the psychiatric medicaments (36.4%). Secondly, consultations were realized to Internal Medicine for the managing of the patient by feverish syndrome in the context of an infectious process, (27.3%) fundamentally of respiratory origin. In 18.2% of the cases there was requested readjustment of treatment of factors of cardiovascular risk.

Discussion: The majority of the consultations proceeding from psychiatry are based in rejecting organic damage in the patient. In the valuation of fever and drowsiness in a psychiatric patient confusion raises the etiology of this pathology, furthermore when these patients meet in treatment neuroleptics. Clinical global valuation of these patients is necessary to establish a differential correct diagnosis.

Conclusions: The integral formation that the internist realizes is fundamental for a suitable assistance of the patients with pathologies that can create confusion. In psychiatry it is fundamental to distinguish between the existence of organic/psychiatric pathology. For that, they are not infrequent the request of consults directed to IM.

G-96
DESCRIPTIVE ANALYSIS OF PATIENTS PRESENTING CARDIAC ENZYMES MOVEMENT FINALLY UNDERGOING CARDIAC CATHETERIZATION IN A SPECIALTY HOSPITAL IN THE SSPA. FROM SERIATE CARDIAC ENZYMES TO CARDIAC CATHETERIZATION

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Objectives: Develop the need of percutaneous transluminal coronary angioplasty (PTCA) in patients attended in E.R. with chest pain, which presents biochemical signs of myocardial damage in our center.

Material and method: We included patients presenting chest pain and biochemical signs of myocardial damage in the last 12-24h from their admission in E.R. in 2011. Variables studied: the presence of rising levels cardicac enzymes (myocardial damage) in established acute coronary syndrome (ACS), PTCA.

Results: Total patients included: 392. Troponin, CPK and CPK-MB in the last 12-24 hours altered in 38.9%. Evolution ACS in 57.6%. PTCA: 96.46% of the patients.

Discussion: Our study objective classical biochemical parameters of myocardial damage have no early positivity in patients requiring invasive measures immediately, it being necessary to perform an overall assessment of the situation of ischemia (biochemical data, clinical and electrocardiographic abnormalities).

Conclusions: Ischemic heart disease is increasing more and more in the population. Patients are getting older and have greater comorbidity, these patients usually enter the Internal Medicine Department when not needed invasive or surgical measures. We need a comprehensive assessment of acute ischemia (biochemical, clinical and ECG abnormalities) for an effective approach to this clinical entity.

G-97
REAL USE OF CLINICAL GOVERNANCE TOOLS IN ITALIAN INTERNAL MEDICINE WARDS

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Objectives: Increased health expectations, new technologies and decreased economic resources, have led to the development of Clinical Governance (CG), a multidimensional tool to improve appropriateness and promote excellence. To evaluate the actual use of CG in Internal Medicine Wards of Italian hospitals, we administered a 67-item validated questionnaire to 39 physicians from 33 IMW, participating in a master course organized by FADOI (Federazione delle Associazioni dei Dirigenti Oapedalieri Internisti), and CREMS (Centro di Ricerca in Economia e Management in Sanità) at LIUC University in Castellanza, Italy. We examined the perceived usefulness (graded from 0 to 4), the utilization rate of 46 CG tools and correlations between CG use and ward characteristics/location. We also investigated the level (organization, department, ward) of CG use.

Material and method: We examined the perceived usefulness (graded from 0 to 4), the utilization rate of 46 CG tools, and correlations between CG use and ward characteristics/location. We also investigated the level (organization, department, ward) of CG use.

Results: The 33 IMW cared for 44,700 in- and 197,000 outpatients in 2010 (mean length of stay 8.83 days; mean occupancy rate 94.6 ± 13.6%, mean DRG weight 1.2). The mean age of medical staff was 48.7 ys. On average 52% (8-89%) of the studied tools are used by the investigated hospitals.. Clinical guidelines resulted the most used (100%) and most useful tool. Regression analysis showed a direct relationship between the utilization rate and the age of medical staff ($p = 0.013$, $r = -0.44$), the age of interviewed physicians ($p = 0.048$, $r = -0.34$), the number of hospitalizations ($p = 0.024$, $r = 0.44$) and hospital beds ($p = 0.001$, $r = 0.68$).

Conclusions: The present study showed that CG is quite used in Italian hospitals, mainly at ward level. CG questionnaire is an opportunity to make inter-organizations comparisons about GC utilization.

G-98
CUM FADOI DOCET: AN AUDIT ABOUT THE MANAGEMENT OF PATIENTS WITH ACUTE PANCREATITIS

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Objectives: The second level Master course on Clinical Governance in Internal Medicine becomes a diffusion network, while maintaining the link between the nodes: master participants faced with the guidelines in an extended audit experiment. Aim of this study was to audit the management of patients with acute pancreatitis (AP) against the standards of practice in 12 centres of different Italian Regions.

Material and method: The study retrospectively analyzed 188 patients with AP in 2011. Audit targets: mortality for AP and for severe acute pancreatitis (SAP); severity assessment by APACHE II score; adequate fluid replacement and analgesia; in SAP, CT after 48 h from illness onset, enteral feeding and prophylactic use of a carbapenemic antibiotic. Results were graded through a quintile classification range: very poor, poor, average, good and excellent.

Results: Out of 188 AP patients, 64 (34%) had SAP. Patient mortality was 2.1% in AP and 6.25% in SAP. We have also evidenced excellent fluid replacement (97%) and good pain control (75%) but poor APACHE II score evaluation (35%). In the 64 patients with SAP the inappropriateness of the CT timing was high (78.1% within 48 hours of illness onset), enteral feeding was very poor (5%) and the use of a carbapenemic antibiotic on average (42%).

Conclusions: The study, despite of the excellent outcomes, highlights a wide spectrum of opportune improvement actions in terms of implementation APACHE II score, enteral feeding, appropriateness of CT timing and carbapenemic use. The re-audit is going to be performed within 1 year.

G-99
FOLLOW-UP OF PATIENTS DIAGNOSED GESTATIONAL DIABETES (GD) FOR 9 MONTHS IN A HOSPITAL IN SPECIALTIES OF THE SAS. EXPERIENCE OF A RESIDENT IN INTERNAL MEDICINE

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Objectives: The impact of the GD on pregnancy and perinatal adverse effects both the mother and the fetus is recognized. The objective of the study is to know the clinical follow-up of diagnosed GD patients about the risk of maternal or perinatal complications develop.

Material and method: GD diagnosed patients were selected in a period of 9 months. Tracked during pregnancy, delivery and postpartum. We analyzed data on the basis of the characteristics of a descriptive observational study. Variable study: age, type of used insulin, risk factors for GD, fetal, perinatal, maternal complications, progression of diabetes in the postpartum.

Results: Total of diagnosed patients of GD: 28 patients, with a median age of 31. They pointed out insulinotherapy the 32.14%. In these patients, the main risk factors that they were, in order of

frequency were: age > 25 years (100%), family history of diabetes (55.5%) and overweight/obesity (33.3%). NPH insulin was used in monotherapy in the 44.4% of the cases, NPH + rapid insulin in 33.3%, rapid insulin monotherapy in 11.1% and pre-mixed insulin + NPH in 11.1%. The most frequent fetal complications were: prematurity (17.8%), hypoglycemia (14.2%), macrosomy (> 4 kg) (10.7%), hyperbilirubinemia (3.5%). Perinatal mortality in this series of cases was 0%. The most frequent maternal complications were: caesarean section (32.2%), polyhydramnios (7.14%) and pre-eclampsia (3.57%). Linking the maternal and fetal complications with patients that require insulinotherapy, 55% of cases were premature and 55% said caesarean section, other complications were present in an 11.1% (macrosomy, polyhydramnios, hypoglycemia, pre-eclampsia). In reference to the postpartum maternal complications, only 1 case developed diabetes mellitus (3.57%), the rest presented normoglycemia after giving birth.

Discussion: GD increases the risk of various such as prematurity, macrosomy and neonatal problems obstetric complications, in addition to maternal problems; these complications reflected in the bibliography were observed in similar frequency in our study. In turn, our percentage of patients who developed diabetes mellitus after childbirth is similar (3.57%) with the described the bibliography. The insulinotherapy should be used whenever that fails a good glycemic control with the use of the treatment dietary, alone or associated with the exercise, in our study, the percentage of patients that required insulinotherapy, if equally similar to the present in different revisions (around 30%).

Conclusions: For a proper clinical evolution of patients with GG needed adequate control of blood glucose, which is why it is important to make a diagnosis and begin treatment early.

G-100
FOLLOW-UP OF PATIENTS WITH A DIAGNOSIS OF HYPOTHYROIDISM GESTATIONAL (GH) DURING 9 MONTHS IN A HOSPITAL OF SPECIALTIES OF THE SAS

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Objectives: T4 requirements increase from the fifth week of pregnancy, moment in which the maternal contribution is important. Hypothyroidism not treated during pregnancy is associated with maternal and fetal, complications with increase in perinatal mortality and congenital abnormalities. Therefore we perform follow-up to those diagnosed patients of GH to assess the requirement for T4 dose pointed out as well as possible complications.

Material and method: It is a descriptive observational study which was in follow-up to those patients with diagnosis of HG during the fall months between June 2011 and February 2012. Variable study: age, time of start of treatment, maximum dose used, average values of thyroid hormones, maternal and fetal complications, breast-feeding and evolution postpartum hormonal control.

Results: 52 Patients with GH were included in the study. Middle age: 30 years. Thyroid hormone therapy began at 11 weeks on average (first quarter: 55.76%). The maximum dose of thyroid hormone which pointed out throughout the pregnancy was 53.03 µg a day. The final average values of TSH were: 2.22 µUI/ml, T4L: 0.96 ng/dl and T3: 0.27 ng/dl. The majority of pregnant women and infants had no complications, still inside of these, the most frequent were: underweight newborn (11.53%) prematurity (7.7%), pre-eclampsia (3.84%), polyhydramnios (1.92%). Got breastfeeding the 42.3% of the patients, making treatment with iodine during this, the 81.8% of them. Thyroid hormones control made at 6-8 weeks delivery, average of TSH figures presented: 1.05 µUI/ml, T4: 2.43 ng/dl and T3 0.29 ng/dl; While in thyroid hormone therapy at the time and therefore, with hypothyroidism post-pregnancy the 23.07% of patients in our study.

Discussion: The most frequent complications found in our sample of patients was similar to those described in the literature (low baby weight and prematurity). The 23.07% of patients continued with hypothyroidism at 6-8 weeks after childbirth, with Ac AntiTPO positive in 50% of these and Ac AntiTg by 25%. The 58.3% of these patients had a family history of thyroid pathology.

Conclusions: It is important to make a diagnosis and early treatment of hypothyroidism in pregnancy for prevention of possible maternal and fetal complications. Antibody positive patients are more likely to introduce hypothyroidism after delivery.

G-102
WHEN SHOULD WE USE MAGNETIC RESONANCE IMAGING IN THE DIAGNOSIS OF HEMOCHROMATOSIS?

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Objectives: Primary- To define the Magnetic Resonance Imaging (MRI) indication in the high iron overload of the liver (HIO), within the hemochromatosis diagnostic algorithm. Secondary- To evaluate the utility of the transferrin saturation index (TS) and seric ferritin (SF) in the HIO diagnostic algorithm.

Material and method: Retrospective study of all the consecutive patients studied by MRI to determine the liver iron concentration (LIC) at the Osatek-Donostia Unit, between 2002 -2008. MRI results were compared to TS (n < 45%), SF (n: < 300 µg/L) and genetic study (HFE gene mutations); Specificity (Sp), Sensitivity (Se), Positive predictive value (PPV) and Negative predictive value (NPV) were calculated. The gold standard for HIO diagnosis was Hepatic iron index > 1.9 (LIC by MRI/age) (Alustiza et al. Radiology. 2004;230:479-84).

Results: From 478 patients studied by MRI we retrieved all the other study parameters in 242 (198 men/44 women). Mean age: 52.4 (SD 13.3). From the 242 patients included, 206 had not HIO and 36 had HIO. TS was raised in 141 patients (108 NHIO/33 HIO); SF raised in 207 patients (35/175). Genetic study revealed 28 C282Y (20/8), 27 H63/H63D (4/23), 25 C282Y/H63D (2/23). Statistics: raised TS obtained a 91.7% (78.2-97.1 95%CI) sensitivity (Se) and a 48% (41-51.4) specificity (Sp); raised SF, Se 97% (85.8-99.5) and Sp 16% (12-22.2). C282Y/C282Y, Se 56% (40-70.5), Sp 96 (92.5-98); H63D/H63D, Se 11% (4.4-25.3), Sp 89% (84-92.4); C282Y/H63D, Se 6 (1.5-18), Sp 89 (84-92.4). The raised TS-SF combination, Se 89% (74.7-95.6), Sp 59% (51.9-65.2). The genetic combination C282Y/C282Y and raised TS-SF, Se 50% Sp 98% (95-99). From 125 patients with not raised TS or SF (52%), 121 without HIO: NPV 97%. From 22 patients with C282Y/C282Y and raised TS-SF (9%), 18 presented HIO: PPV 82%. From 95 patients with negative genetic study and normal TS-SF (39%), 94 without HIO: NPV 99%.

Discussion: MRI has the capacity to exactly measure liver iron concentration and it is a non-invasive technique. In this study we observe that the 61% (147/242) of the patients do not need MRI for HIO diagnosis, because analytical and genetic parameters are enough to confirm or rule out HIO in them. However, MRI for HIO determination is indicated in the other 39% (95/242) of the patients. MRI is necessary in the intermediate LIC values (18 HIO patients; 77 without HIO) for the diagnosis of HIO.

Conclusions: Normal TS or SF have high NPV for HIO. The combination of raised TS and SF with C282Y/C282Y mutation have high PPV for HIO. MRI is indicated in patients with raised ST and SF without C282Y/C282Y mutation.

G-103
COPD ATTENDED IN A SHORT STAY UNIT (SSU)

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Objectives: To describe the features of patients admitted because of COPD into a General Internal Medicine Short Stay Unit (SSU), as well as to identify factores associated with poor outcome (SSU failure, readmissions, death by any cause).

Material and method: Data were acquired from discharge reports between February 2011 and February 2012 from the SSU. Data are given as mean ± SD (range) and absolute numbers (percentage) were applicable. Categorical data are compared by means of Chi-square test, numerical variables are compared with Spearman's correlation coefficient. Kaplan-Meier analysis was performed to evaluate time to readmission associated-factors.

Results: A total of 63 (24.2%) patients out of a cohort of 260 had a history of COPD. 24 patients were discharged as "COPD exacerbation". There were 10 (41.7%) women. Patients were 77.91 ± 8.8 years old. 7 patients (29.2%) had no prior history of COPD and 6 (25%) denied ever smoking. Among smokers, mean packets/year index was 44 ± 27.29. From the available data 6 patients (54.6%) had moderate to severe disease. 16 (66.7%) patients were on inhaled corticosteroids. 16 patients (66.7%) computed as pluripathological patients. Patients fulfilled 1.86 ± 1.14 (1-3) pluripathological criteria. Length of stay was 3.46 ± 1.61. No patient died within 30 days of discharge. 4 (16.7%), 1 (4.2%) and no patient required readmission within 30, 14 and 3 days of discharge, respectively. Cardiopathy (A Category) was closely related with readmission (X square = 4.8; p = 0.028). Staying days related negatively with number of pluripathology categories (r = -0.54; p = 0.008). Basal C-reactive protein levels correlated (negatively) with basal O_2 levels (r = -0.899; p = 0.015). However, none of these variables were useful to predict readmission.

Discussion: It's possible to attend COPD patients in a SSU with safety, even when they have large comorbidities and are of old age. Due to the shortness of our study population it should be necessary to carry on recruiting patients in order to reaffirm our results.

Conclusions: COPD exacerbations can be managed in a Short Stay Unit environment. Age, comorbidities, low basal O_2 levels and high basal CPR did not affect readmission rates. More patients are needed to further evaluate SSU performance with our chronic exacerbating disease such as COPD.

G-104
ANTICOAGULATION AND NONTRAUMATIC ABDOMINAL HEMATOMA

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Objectives: To analyze the clinical characteristics of patients with discharge diagnosis of rectus abdominis and retroperitoneal hematoma in an area hospital.

Material and method: A retrospective study of a group of patients diagnosed with rectus abdominis hematoma (RAH) and retroperitoneal hematoma (RH) between 2006 and 2011 was performed. Data were processed using a statistical program (SPSS-15).

Results: During the study period 31 patients were identified (52% women). The mean age was 77.6 years and 90% were over 65 years old. The hematoma was the cause of admission in a 42%, in the remaining 52% it occurred as a complication in patients admitted for another reason. 90% patients were receiving anticoagulants (38.7% acenocoumarol, 35.4% LMWH, 12.9% acenocoumarol and LMWH and 3.22% UFH). In addition, 45.16% also received antiplatelet agents. Of those who were treated with LMWH, 63.63% were receiving a therapeutic dose and 36.36% a prophylactic dose. In a 43.3% cough was a predisposing factor. Clinical onset was abdominal pain in 74.2%, palpable mass in 38.7%, hypovolemic shock in 19.35% and a drop of hemoglobin levels without associated symptoms in 9.67% with an average decrease of 3.15 mg/dl. Among patients treated with LMWH a 72.7% had creatinine clearance lower than 60 ml/min (MDMR-4). Of those treated with acenocoumarol, 66.67% had an INR over 3.5. In most patients the initial diagnosis was clinical (80.6%) confirmed by CT in a 56.67%, ultrasound in a 76.67% and 6.46% without imaging test. The most frequent locations were rectus abdominis (58%), retroperitoneal (32.26%) and both in a 9.7%. Treatment was conservative in all cases and consisted of remove anticoagulant therapy (96.77%), 67.64% required blood transfusion, bleeding vessel selective embolization in a 5.2% and surgery was no needed. The average stay was 17.9 days and hospital mortality 10%.

Discussion: As we have seen in our series, RAH and RH are rare entities that often occur in elderly whose receiving anticoagulant therapy. We also observed a slight women predominance. Even though most hematomas occur spontaneously predisposing factors are considered, such as coughing which was present in up to half of patients. We also identified as risk factors: moderate renal failure in patients treated with heparin and INR over therapeutic range in patients treated with acenocoumarol. A small percentage of patients associated RAH and RH, a circumstance not present in the revised series. Although the diagnosis was clinical in most cases, an image study was performed for confirmation in nearly 90% of patients. Conservative treatment was adopted in most cases. The average stay was 17.9 days and mortality of 10%, having found a large variability in the revised series (1.6-12%).

Conclusions: Slight female predominance and preferential incidence in elderly patients whose are receiving anticoagulant treatment. Although RAH and RH are not a frequent pathology, they have a high morbidity and mortality. Cough and renal failure appear to be predisposing factors. We must avoid LMWH injection in the abdominal wall in patients with severe cough. Necessity to adjust LMWH doses in patients with moderate or severe renal failure.

G-105
HIP FRACTURE IN THE ELDERLY. IMPLEMENTATION OF A COMPREHENSIVE CARE PROGRAM AND EVALUATION OF HEALTH OUTCOMES

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Objectives: Report the health outcomes of a multidisciplinary care program for patients with hip fracture in an acute general hospital.

Material and method: In this model involved a team of orthopedic surgeons, internists, family physicians, emergency, intensive care,

physical therapists, anesthesiologists, nurses and social workers. Retrospectively include all patients over 65 years, diagnosed with hip fracture from January 1, 2006 to December 31, 2010. They were followed for one year.

Results: It includes a total of 1,000 events, corresponding to 956 patients. The total length of stay was 6.68 days. The percentage of patients operated on within 72 hours, has become of 91.21%. The incidence of surgical site infection was 0.4%. Readmissions per year were 14.3% and year mortality of 23.1%. From the beginning there has been a progressive reduction in the average stay. In Table 1 we show the comparative results of the first and last Period of program development.

Discussion: There is a significant variation among the published data, where the percentages of patients that had early surgery range from a minimum of 52% to a maximum of 83% The total average length of stay achieved in our study is lower than that reported by other authors which ranges from 14 to 25 days. There is a large disparity among results from the available studies, ranging mortality rate during episode from 1.5% to 10%. There is also a large variation in annual mortality results among the studies published ranging from 10.4% to 45%.

Conclusions: 1. The development of a a multidisciplinary care program to the patient with hip fracture, leads to beneficial results in health, with a high percentage of patients operated on early, low length of stay, incidence of surgical site infections, readmission rates and mortality intraepisodio and one year follow-up. 2. The integration of this program in the normal activity of an acute regional hospital, offer allows easy incorporation, the organizational model hospital care elsewhere.

G-106
EFFECT OF FASTING FOR DIAGNOSTIC PROCEDURES ON NUTRITIONAL STATUS OF HOSPITALIZED PATIENTS. A PROSPECTIVE STUDY

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Objectives: To investigate nutritional status and to identify factors associated with nutritional deterioration in a cohort of patients during admission. We focused on the impact of fasting due to diagnostic procedures on malnutrition.

Material and method: Prospective study conducted in a tertiary care hospital that included admitted patients with viability of gastrointestinal tract. Patients received a diet according to their medical condition supervised by a dietician, who fulfilled a food intake record including periods of fasting due to diagnostic procedures. Nutritional status was evaluated by the Subjective Global Assessment (SGA) and the Mininutritional Assessment (MNA) at baseline and by analytic variables (total proteins, prealbumin, C-reactive protein, cholesterol, lymphocytes) and anthropometric parameters (weight, body mass index [BMI], bicipital and tricipital skinfolds thickness, mid-arm muscle circumference [MAMC] and muscular strength measured by handgrip) at baseline and at discharge. Association between nutritional parameters and several variables such as age, gender, education level, previous alcohol intake, Charlson and Barthel indexes, cognitive dysfunction, mastication problems, drugs and number of pills per day during admission, main diagnoses at discharge, length of stay, amount of intake, time of fasting and number of lost meals was assessed by univariate analysis followed by a multiple linear regression.

Results: Twenty-one consecutive patients (13 men, 8 women; 69.8 ± 12.1 years) without marked pluripathology (Charlson index 1.9 ± 1.7) or autonomy impairment (Barthel score 90.9 ± 12.9) were admitted for 10.2 ± 6.6 days. The main causes of admission were new-onset cancer (9 cases) and infections (8 cases). The majority of patients exhibited an acceptable nutritional status at baseline (SGA A: 9 patients, B: 8, C: 4; MNA: 23.0 ± 4.8; BMI: 26.1 ± 3.8). The amount of intake and time of fasting were 71.2 ± 21.5% and 9.3 ± 8.3 hours, respectively. Thirteen of 21 patients (62%) lost 1 or more meals in preparation for diagnostic tests. During follow-up, a decrease in weight (final-baseline = -1.1 ± 3.1 Kg), MAMC (final-baseline = -0.6 ± 1.2 cm) and handgrip (final-baseline = -0.8 ± 4.3 Kg) and an increase in prealbumin (final-baseline = 2.0 ± 7.5 mg/dL) were observed. However, bicipital and tricipital skinfolds remained unchanged. The only independent factors associated with reduction in MAMC (R2 = 0.37) and handgrip (R2 = 0.33) were the number of lost meals (regression coefficient, B = -0.64) and alcohol intake prior to admission (B = -7.23), respectively.

Discussion: In hospitalized patients, malnutrition is a common complication that increases morbidity and mortality. To date, few studies have assessed the impact of fasting for diagnostic tests on nutritional deterioration. According to previous data, protein-energy impairment was the leading form of malnutrition in our patients. The reduction in muscle mass and strength detected in those patients who skipped some meal or were drinkers suggests a deleterious effect mediated by fasting and alcohol. Other traditional factors such as age, malignancy, pluripathology, polypharmacy and cognitive dysfunction did not affect nutritional status in our cohort.

Table 1 (G-105). Healhtcare outcomes. Final and initial periods

Variables	First semester of 2006 (n = 90 episodes)	First semester of 2010 (n = 101 episodes)	p value
Total average length of stay (days) Median, (IQ range)	7.82 (5.53; 10.27)	6.68 (5.18; 8.64)	p = 0.045
Patients operated in < 48 hours n (%)	46 (52.87%)	74 (81.32%)	p < 0.001
Patients operated in < 72 hours n (%)	58 (66.67%)	83 (91.21%)	p < 0.001
Mortality during episode. N (%)	4 (4.49%)	7 (7.37%)	p = 0.411
Re-hospitalisation after 1 year. N (%)	17 (19.10%)	16 (16.84%)	p = 0.690
Mortality after 1 year. N (%)	24 (26.97%)	20 (21.05%)	p = 0.347

Table (G-126). Outcome of mid-arm muscle circumference (MAMC) in patients. With and without lost meals during follow-up

	Without lost meals (n = 8)			With lost meals (n = 13)		
	Baseline	Final	p value	Baseline	Final	p value
MAMC (cm)	24.8 ± 2.7	25.1 ± 3.1	0.471	23.6 ± 3.6	22.5 ± 3.0	0.009

Conclusions: During admission, fasting and previous alcoholism impair the nutritional status of patients. A decrease in MAMC may be an early marker of protein malnutrition that is associated with the number of lost meals due to diagnostic procedures.

G-108
EVOLUTION AND CLINICAL FOLLOW-UP OF PATIENTS WITH THYROID CANCER (TC) IN A HOSPITAL OF SSPA

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Objectives: The favourable biological course of differentiated thyroid cancer allows long free periods of disease, but recurrences can occur decades after treatment, it forces to the long-term follow-up of these patients. We describe the characteristics of patients diagnosed TC and operated between the years 1994 and 2011 attending consultations review.

Material and method: It's a descriptive observational study in which we analyze those diagnosed patients TC attending outpatient. The variables to be measured were: classification according to histology, TNM classification, stadium and calculation of risk, post-intervention detectable thyroglobulin, ant-thyroglobulin antibodies, TSH levels and doses of thyroid hormone LT4, presence of secondary hypoparathyroidism.

Results: Patients included: 71. Average age: 43 years. Female dominance: 76.05%. According to the final histology patients were classified as: Ca. papillary (76.56%), Ca. follicular (21.87%) and Ca. spinal cord (1.57%). According to the TNM classification postoperative: tumor size: T1 (< 2 cm tumor): 42.85%, T2 (> 2 and < 4 cm): 30.61%, T3 (> 4 cm tumor, limited to the thyroid): 22.44%, T4 (tumor any size that is extended beyond the thyroid Capsule): 2.04%, Tx (unknown size): 2.06%. Lymph nodes: N0 (no ganglion metastases): 71.42%, N1a (central pretracheals, paratracheals and prelaryngeus metastases): 10.20%, N1b (unilateral, bilateral or contralateral cervical or superior mediastinum metastases): 20.40%. M1 (distant metastases): 2.04% (Lung). Stadium: I (51.02%), II (18.36%), III (20.40%), IV (10.20%). According to this, the category of risk: very low risk (26.53%), low risk (32.65%), high risk (40.81%). Analytical controls, had detectable thyroglobulin levels the 8.45% of the patients. The average levels of anti-thyroglobulin antibodies was 14.49 IU/mL, the value of medium TSH was of 2.38 µUI/mL, with a suppressed TSH (TSH < 0.3 µUI/mL) the 16.90% of patients and values by above 15 µUI/mL the 9.85% of patients. The average dose of LT4 needed patients was 124.6 µg. They presented secondary hypoparathyroidism the 15.49% of the patients.

Discussion: Highlights in our study, the percentage of patients with high risk according to the TNM postoperative, the survival rate of these cases usually 50% according to the revisions. It is recommended one TSH levels suppressed to prevent the stimulation of the residual thyroid tissue, in our series of cases this was achieved in the 16.90% of patients. Hypoparathyroidism is a complication relatively common in the total thyroidectomy by cancer.

Conclusions: Differentiated papillary carcinoma and follicular carcinoma tumors, usually have good prognosis and are curable in almost all cases if detected in the early stages. Levels Tg detectable relate to the persistence of the disease, although not always, being stimulated the serum level of this by TSH.

G-109
THERAPEUTIC APPROACH AT THE END OF LIFE. A YEAR EXPERIENCE AT A PALLIATIVE CARE UNIT

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Objectives: The aim of this study was to analyze at our palliative care unit wether the specific treatments used were effective or other therapies was required. We also intended to determine the symptoms that motivate the admissions; to assess the patients who needed symptomatic measures; to find out when it had to be used the sedation to control the symptoms and to check the kind of consent obtained to use this therapeutic manoeuvre.

Material and method: A retrospective, descriptive, observational study was performed of all the admitted patients consecutively to the palliative care unit from 1st January to 31st December 2011. Medical records were reviewed and we analyzed age, gender, underlying disease and if it was cancer or not, the hospital admission cause or symptom, the syndrome or the clinical situation that underlay that symptom and when it was multifactorial, specific and expectant treatment of the syndrome, as well as the need of sedation to control refractory symptom and how the consent was obtained in these patients, how many patients were discharged and how many died. The data was analyzed by Excel system.

Results: 266 patients were analyzed. The average age was 68 years, with a male sex predominance (59%). Most of patients (94%) suffered from cancer and it supposed the clinical situation which brought about the admission, most frequent tumours were gastrointestinal (35%), followed by lung (21%) and breast (8%). The main symptom of admission was pain, then dyspnea and delirium, up to 66% of patients presented asthenia and more than a single symptom was the cause of the 84% of admissions. The failure related to a vital organ, mainly respiratory and hepatic, was the main reason of symptoms. Respiratory infection and bowel obstruction are highlighted as well. An important percentage of patients (36%) are classified as cancer development. Nearly 80% of patients presented more than a cause which could justify their discomfort. Specific treatment was received in 61%, but 86% required a symptomatic one. 70% of patients died, 23% of them needed sedation. Informed consent was obtained in all of that it was possible, considering the cognitive situation of the patient. In those that the patient was not able to make the decision (67%), the family gave the consent.

Discussion: Clinical care at the end of life tries to improve quality of life of patients and their relatives, when to cure or to increase the survival cannot be the purpose. The relief of symptoms is one of the objectives of the global assistance given in palliative care, there the psychological, spiritual and social needs are also addressed. Nowadays we have at our disposal measures to relieve most of symptoms which cause discomfort at the end of life. First of all, the treatment has to be based on the clinical clues, that is to say, a specific but conservative therapy. When the progression is not satisfactory, symptomatic treatment and, in the end, palliative sedation may be the best options to control the refractory symptoms.

Conclusions: More than the half of admitted patients received a specific treatment with a little long-lasting relief. The most frequent symptoms were pain, dyspnea and delirium. Asthenia was associated in most patients. Despite therapies, a very high percentage of cases required a symptomatic manage to get relief. Almost a quarter of patients who died needed a palliative sedation in the last days. The explicit consent was obtained in all the patients whose cognitive level allowed it, and it was delegated in the rest.

G-110
INSPIRATORY CRACKLES IN COPD: IS IT THE LUNG OR THE HEART?

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Objectives: Inspiratory Crackles (IC) are intermittent short-lived sounds heard on chest auscultation, associated with pulmonary disorders and Congestive Heart Failure (CHF). Smoking is a risk factor for Chronic Obstructive Pulmonary Disease (COPD) and CHF, two common conditions that frequently coexist. IC may be found in both conditions; however, the clinical significance of crackling in lung auscultation of smokers or ex-smokers is unknown. We aim to determine whether IC are associated with the diagnosis of COPD.

Material and method: We performed an observational study in smokers or ex-smokers, older than 50 years and with more than 10 pack-years smoking history. All subjects had to be clinically stable for at least six weeks. The subjects were examined by a physician who had no clinical information of the patient. Subjects with respiratory disorders other than COPD were excluded. A full clinical and respiratory evaluation was done.

Results: We included 87 subjects, 62 had COPD (71%), and 25 had no COPD (29%) (controls). IC were more frequent in COPD (47%) than in controls (4%) (p-value < 0.001). Heart Disease (HD) was similar in COPD (56.5%) and controls (48%), (p-value 0.48). The presence of IC was not associated with HD (p-value 0.114). Clinical parameters associated with IC were the diagnosis of COPD (p-value < 0.001), age (p-value < 0.001) and renal function (creatinine clearance) (p-value 0.006). In step wise logistic regression analysis in the presence of IC as dependent variable, including age, gender, Renal Function, HD and COPD, only age [Odds Ratio (95% confidence intervals)]: [1.094 (1.021-1.173); p-value 0.011], and COPD [11.706 (1,412-97.065); p-value 0.023] entered in the model. Using ROC curve for the presence of IC, AUC for the diagnosis COPD was 0.714 (95%CI 0.606-0.822); p-value 0.002.

Discussion: Crackles were first described in 1818 by the French physician Laënnec, who called them "rales". Laënnec invented the stethoscope, and was the first physician to describe the presence of "rales" in the chest of patients with emphysema. In 1957 Robertson and Coope introduced the term "crackles", although both terms are still in use. Nath et al (1974) described the early characteristics of crackles in Chronic Airway Obstruction and found them to be highly specific. However, this clinical sign has received little attention in the medical literature in the evaluation of COPD patients. In the present study, we have blindly evaluated the presence of crackles in a high risk population for COPD and Heart Disease. We found a strong association between inspiratory crackles (IC) and the diagnosis of COPD, regardless of a diagnosis of heart disease. Our findings suggest that in clinically stable smokers or ex-smokers with IC on lung auscultation, COPD must be ruled out with a spirometry.

Conclusions: In our study population, inspiratory crackles were associated to aging and the diagnosis of COPD, but not to heart disease.

G-112
BLEEDING RISK ASSESSMENT IN ANTICOAGULATED PATIENTS TAKING LOW MOLECULAR WEIGHT HEPARINS VS ACENOCOUMAROL

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Objectives: There are several previous studies linking the use of anticoagulant therapy with the occurrence of bleeding in both soft tissue and in internal organs. We propose to verify this association in patients admitted to our service.

Material and method: We performed a retrospective observational study, selecting those patients admitted to internal medicine ward since January 2011 to January 2012, coded as patients who presented an adverse reaction to anticoagulant therapy (E934). We studied the CVRF present and bleeding risk factors, the indication for anticoagulation, adverse events and diagnosis at discharge. Bleeding complications were determined as primary endpoint. These complications were defined as soft tissue hematoma, other bleeding (hematuria, rectal bleeding, epistaxis...), and severe bleeding. We tried to relate them to the use of any anticoagulation therapy, assessing the presence of overdosage of acenocoumarol and, in this case case, the INR value presented by the patient.

Results: We analyzed 119 patients, 62 women (52%) and 57 males (48%) with a mean age of 80.9 to presenting T2D (35%), hypertension (75%) and heart disease (69%). Among the risk factors for bleeding, 6.7% had known liver disease, 32% chronic renal failure and 12.6% were receiving antiagregant therap. The main indication for anticoagulation was atrial fibrillation (75%) followed by VTE (17.6%) and valvular disease (7.6%). 16 patients (13.4%) received LMWH treatment, while 102 patients (85.7%) were taking acenocoumarol, of which 80% were overdosed with a mean INR of 6.3. 22 patients had a soft tissue hematoma (18.5%), while 29 (25%) had other types of bleeding but only 5% had severe bleeding. None of the previously described demographic factors were statistically significantly associated with bleeding events. 9 of the 16 patients treated with LMWH (56%) had a soft tissue hematoma. We observed an association between both with statistically significant χ^2 ($p < 0.0005$). Only 13 of the 102 patients treated with acenocoumarol (12.7%) showed this complication, without statistical significance. Nor is the association between INR and the appearance of a soft tissue hematoma. When comparing patients treated with LMWH or acenocoumarol, there was a statistically significant difference ($p < 0.0001$) with increased bleeding risk in patients treated with heparin. 7 of the 16 patients treated with LMWH (43.8%) had other types of hemorrhage, showing a weak association ($p < 0.65$) between them. Of the 102 patients treated with acenocoumarol, only 22 (21.6%) had this side effect, without a statically significant association. There was no difference between the risk of this type of bleeding when comparing patients treated with LMWH or Sintrom ($p < 0.1$). No association was found between adverse bleeding events and increased mortality.

Discussion: In this study an association between the use of LMWH and increased incidence of soft tissue hematoma was demonstrated, but that risk seems to be absent in patients anticoagulated with acenocoumarol. However, the main limitation of our study has been the selection of patients with adverse effects associated to anticoagulant therapy. We did not found an association between previously described risk factors for hemorraghe, such as advanced age and impaired renal function, and bleeding events. These results should be evaluated in a larger study, selecting a control group.

Conclusions: LMWH is associated with an increased incidence of soft tissue hematomas, and with a slight increase in incidence of other types of bleeding. Patients treated with LMWH have increased risk of soft tissue hematoma than those treated with acenocoumarol. There is no clear association between the value of INR in patients treated with acenocoumarol and the occurrence of bleeding.

G-113
INTERNAL MEDICINE CONSULTING: ANALYSIS ABOUT MEDICAL PATHOLOGY OF PATIENTS ADMITTED IN SURGICAL SERVICES

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Objectives: To analyse the prevalence of medical pathology in surgical Services following the questions and interconsulting directed to Internal Medicine physicians, to know the comorbidities of this kind of patients, and the complications they have during the admission.

Material and method: We report the 46 consultations directed to Internal Medicine in the first trimester of 2012, about patients admitted in all the Surgical Services as: General Surgery, Orthopedic Surgery, Urology, Oftalmology and Otorhinolaryngology. The analysed data were: origin of interconsulting, sex, age, reason for admission, comorbidities, pursuit's days and diagnosis.

Results: Our data shows that: medium age of patients 78 years, 17 females (37%), 29 males (63%). The requesting of the different Services were: 19 from General Surgery, 18 from Orthopedic Surgery, 7 from Urology and 2 from Otorhinolaryngology. The aim questions were: dysnea the most frequent, heart failure and fever.

Discussion: Nowadays the admitted patients also in Surgical Services are really old and with lots of comorbidities, and for us is more evident for our local area attention. Soria is a little Spanish town with majority population older than 65 years. These conditions are favorable to create consultations to Internal Medicine department looking for help in the global management.

Conclusions: We consider that it's very remarkeable the attention of patients admitted in Surgical Services by Internal Medicine physicians because we contemplate the global vision of these patients, and we try to diagnose all the symptoms and the occasional complications and also to treat them. We would like to notice the importance of a good relationship between Surgical Service and Internal Medicine jus to make the best management of patients.

G-114
UTILITY OF GOLD AND CAT SCALES IN THE COPD PATIENT CLINICAL PRACTICE

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Objectives: Patients with COPD are usually classified with the GOLD classification, which measure the airflow limitation severity. Spirometry is required to make a diagnosis of COPD; the presence of a postbronchodilator FEV1/FVC < 0.70 confirms the diagnosis of COPD. But the goals of COPD assessment are to determine the severity of the disease, its impact on patient´s health status and the risk of future events. That is not possible only with spirometry, and we need to assess other aspects such as symptoms, so we have created questionnaires as the COPD Assessment Test (CAT). We want to evaluate the applicability and importance in controlling the disease of these scales in COPD patients.

Material and method: We collected the patients hospitalized for COPD exacerbation for one month (April 2012) in our Department of Internal Medicine. We have collected epidemiological data (age, sex, influenza vaccination and active smoking), comorbidity, routine treatment, and previous hospitalization for COPD exacerbation in the last year. GOLD scale was calculated in patients with available spirometry, and all patients admitted were asked to fill in the questionnaire CAT. We analized results with SPSS 17.0 program.

Results: In this period 31 patients were admitted to our department with a diagnosis of exacerbation of COPD. In the epidemiological data highlighted a mean age of 77.45 years (median 77 years), with predominance of male sex (87.1%), 83.9% correctly performed seasonal flu vaccination and 22.6% continued smoking. Comorbidity in the patients was very high (83.9%), mainly the presence of hypertension and heart failure (80.6 and 74.2% respectively). 83.9% performed bronchodilator therapy, 60% received treatment with oral corticosteroids in the last 3 months and 51.6% had oxygen therapy. 48.4% required hospital admission in the last year for exacerbation of COPD. Only 48.4% (15 patients) had spirometry previously performed in our hospital, so GOLD level could be used. They were classified into GOLD 1: 20%, GOLD: 2: 53.3%, GOLD: 3 20% and GOLD 4: 6.7%. The CAT score has a median of 22 points, and classifies into groups according to the impact level that COPD has on their daily activity; only 6.5% has a low impact level (CAT score < 10), 25.8% has a medium impact level (10-20), 51.6% has a high impact level (21-30) and 16.1% has a very high impact level (> 30).

Discussion: The patients seen in Internal Medicine Services like ours have significant comorbidity, probably conditioning the scales that assess the life quality of patients affected with COPD and show a classification not closest to reality. Pulmonary function tests such as spirometry, are not regularly performed for patients diagnosed with COPD, especially when they have other comorbidities or are elderly patients, so the GOLD scale does not allow us to really know the involvement of many of our patients, being misclassified from the functional point of view. We found no relationship between the two scales, it seems reasonable to think that the management of this disease should be conducted in a combined assessment, which will assess the symptoms and spirometric classification.

Conclusions: Spirometry would be periodically needed to patients diagnosed with COPD to know their current respiratory functional status, being a common error in our attitude not to perform spirometry after diagnosis. A good tool to know the impact of COPD on the patient may be the CAT scale, being a reproducible questionnaire for patients admitted with COPD, but it must always be done trying to prevent mistakes in the collection.

G-115
HOW ARE WE TREATING INFECTIONS? A CASUISTIC OF A SURGICAL WARD

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Objectives: The occurrence of infections amongst patients in surgical wards increases patients morbidity, mortality, length of hospital stay and treatment cost. Therefore, knowledge about the frequency and distribution of infections is important to improve infection control measures as well as to develop effective preventive and curative strategies which, in turn, will help us in decreasing incidence, morbidity, mortality and associated treatment cost. Having this goal in mind and with the aim of improving infections treatments, we have characterized the antibiotics prescription pattern, concerning to costs, adequacy to antibiogram tests and principal medication errors, amongst patients admitted to a surgical ward.

Material and method: Retrospective analysis of the clinical processes of all patients admitted from January to March of 2011 in a surgical ward.

Results: 525 patients were admitted in the referred period; 40 patients had at least one positive culture during the admission. We divided the patients into two groups: the patients with no

positive culture (Group A, n = 485) and the patients with at least one positive culture (Group B, n = 40). In group A, 58% patients were males, mean age of 58 years (minimum age: 18; maximum: 93). The mean duration of admission was 7 days. 46% were admitted for less than 48 hours. The most frequent reason for admission was abdominal hernia (25%) and malignant tumors (15%). In group (B), 53% were males, medium age of 67 years (minimum age: 32; maximum age: 91). The mean duration of admission was 25.4 days. 25% had admissions longer than 1 month. The most frequent pathologies were malignant tumors (23%) and diabetic wounds (18%). On group B, 25% of the patients had a previous admission on the past three months; 73% had been submitted to a surgical intervention; 28% were submitted to prophylaxis therapy; and 38% had been temporary admitted on an intensive care unit. From a total of 66 positive cultures, the most common isolates were methicillin-resistant-Staphylococcus aureus (9patients), Acinetobacter baumannii (7 patients), Escherichia coli (7 patients) and Pseudomonas aeruginosa (6 patients). 13 patients (32.5%) had more than one microorganism isolated during the admission. 46% were found in the operatory wound, 24% in urine cultures and 14% in blood cultures (central venous catheter, lung secretions and CSF were less representative). On group A, the most common prescribed antibiotic were gentamicin and metronidazole (almost 4200 doses (d) representing altogether 3,200€, mostly for intra-operatory prophylaxis), followed by piperacillin/tazobactam (830d). Relating to economic burden, the most representatives antibiotics were tigecicline (3,300€ - 66d), meropenem (2,500€ - 250d) and colistine (15,00€ – 8 d). On group B the most prescribed antibiotics were the same: metronidazole (22 patients), gentamicin (19 patients) and piperacillin/tazobactam (18 patients). 45% of patients received 3 or more different courses of antibiotics. Of 40 infected patients, 11 were overmedicated, with a more expensive antibiotic (even after the antibiogram test); 8 received an inadequate antibiotic. Only 1 patient was treated with the more adequate antibiotic (concerning to adequacy to antibiogram test and the choice of the cheaper antibiotic). On the studied period, the total cost for the prescribed antibiotics was 17,600€. If we consider all patient of group B, the cost per day of admission was 838€; it could had been only 382€ per day, if we had use the cheaper of the most adequate antibiotic.

Discussion: The mean age of group A patients were 10 years lower. Mean duration of admission was almost four times higher in group B and malignant pathology was two times more frequent, as well as infected diabetic wound. We found 14 patients without clinical information on the charts (35% of group B). 97.5% of group B were not receiving the most adequate infection treatment. We could had spare almost 450€ per day of admission, considering the group B p altogether.

Conclusions: Antibiotic prescription according to antibiogram test not only avoid mistreatment but also lead to a more economically effective medical practice.

G-116
MULTIPLE SYMMETRICAL LIPOMATOSIS. ANALYSIS OF CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS IN THE HEALTH AREA OF VIGO

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Objectives: Multiple symmetric lipomatosis (MSL), also known as Madelung disease, Launois-Bensaude disease and diffuse symmetric lipomatosis, is a rare condition characterized by deposition of uncapsulated subcutaneous adipose tissue in different locations, mainly in middle aged men and related to alcohol intake. There are two types: type I (Madelung) characterized by circumscribed rounded clumps that protrude on the body surface, predominantly in the posterior cervical region, and type II, with more diffuse involvement of the abdomen and proximal regions of the extremities. Objective: to analyze the clinical and epidemiological characteristics of patients diagnosed with MSL in our health area.

Material and method: 21 cases of patients diagnosed with MSL disease were detected through the coding system of our hospital, mainly procedent from surgical services (plastic surgery and otolaryngology). Their medical records were retrospectively reviewed.

Results: 21 patients (18 men and 3 women) were selected. Mean age at diagnosis was 51.9 years. Mean body mass index was 26.75. 20 patients recognized at least moderate alcohol intake. Most frequent locations of subcutaneous lipomatous masses were occipital and neck (57.1%), and submental region (52.4%). Histology showed adipose tissue hyperplasia and hypertrophy, without atypia or malignant degeneration. 3 patients had compression symptoms: 2 sleep apnea hypopnea syndrome and one mechanical hip pain. Three patients had sensory-motor axonal polyneuropathy of lower limbs, one of them with also upper limb involvement. One patient had clinical autonomic neuropathy with postural hypotension and tachycardia. Laboratory findings more frequently altered were elevated mean corpuscular volume (42.8%), thrombocytopenia (23.8%), abnormal liver function tests (57.1%) and hypercholesterolemia (38%). 61.9% of the patients had chronic alcoholic liver disease. 90.5% of patients underwent dermolipectomy, that had to be done on several occasions in many patients for recurrence of lipomas. No other treatments were applied unless the recommendation of cessation of alcohol consumption that was not followed in either case.

Discussion: MSL primarily affects men between 40 and 60 years old. Etiology is unknown but has been associated with lipid metabolism disorders, alcohol intake and changes in mitochondrial DNA. There are also inherited forms. It is associated with axonal polyneuropathy in nearly 85% of cases and with autonomic neuropathy in certain patients. Active search for neurological data can prevent sudden death. However, in our series the incidence of neurologic involvement is much lower, most likely underestimated because the patients have been evaluated mainly in surgical services. Respiratory compression and aesthetic deformities are the main points for surgery, but it is crucial advice of quitting alcohol to prevent recurrences.

Conclusions: 1. In our series, as in literature, alcohol intake could act as a triggering factor in genetically predisposed individuals. 2. The management of these patients in Internal Medicine services could help in early detection and management of neuropathy as well as general measures such as inclusion in alcoholic detoxification programs.

G-117
REVIEW CLINICAL OF CASES OF FAHR'S DISEASE (FD) IN A HOSPITAL OF THE SSPA

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Objectives: To know the incident and clinical profile of FD in a hospital of SSPA.

Material and method: We chose patients diagnosed with Fahr's Disease Of the total of patients valued from Service of Internal Medicine, Neurology and Emergency department during the year 2011. The variables to study used were the following ones: age,

sex, comorbility, forms (trains) of clinical presentation and evolution. The information was analyzed on the basis of the characteristics of a descriptive market study.

Results: Total patients: 3. The first case is that of a 71-year-old woman with a history of high blood pressure who came to the emergency department due to left hemifacial paresthesias and some difficulty with speech which lasted for some hours compatible with a temporary ischemic accident. Case 2 concerns a 79-year-old woman with history of HBP, obesity, Diabetes Mellitus type II and depressive syndrome who comes to consultation at the Dept. of Internal Medicine after presenting symptoms of a syncopal episode. Case 3 is a young woman aged 38, with no personal history of interest, studied in Neurology for repeated headaches with characteristics compatible to migraine with visual aura. Complete analyses were carried out in all three cases (including calcium, total proteins, phosphate, paratohormone, thyroid hormones, PCR...), ECG, and Rx of thorax which were normal. The neuroimaging studies showed widespread bilateral and relatively symmetrical calcifications affecting the basal ganglions and both hemispheres of the cerebellum. In the case 3 the calcifications also included both pulvinar thalamic nuclei. These findings suggest the diagnosis of Fahr's disease.

Discussion: Fahr's disease is characterized by bilateral and symmetrical calcifications limited to central grey nuclei or which have extended to other cerebral areas (thalamuses and hemispheres of the cerebellum), associated with neurological disorders and with no anomalies whatsoever in the metabolism of calcium. It can begin during childhood or in adult life. The form of presentation is variable: manifestations may be extrapyramidal. In our study we obtain three patients with diagnosis of Fahr's Disease presented similar distribution for sex with middle ages of average of 62 years who came to the emergency department, to the Neurology and to consultation at the Dept. of Internal Medicine. The clinic that prevailed to the revenue was: 33% hemifacial parestesias, 33% syncopal episode and 33% headaches. Only 33% needed treatment for headaches with characteristics compatible visual to migraine with aura (topiramate). From the steals of its diagnostics, two of the patients remain asymptomatic and 1 marries died ace to result of to cerebro-vascular accident.

Conclusions: Fahr's disease is an infrequent, idiopathic, familial disorder which usually appears in the form of dementia, Parkinsonism, ataxia or neuropsychiatric alterations. None of three cases presented showed this symptomathology, the intracerebral calcifications appearing as incidental findings from neuroimaging. We must rule out secondary causes of treatable diffuse cerebral calcifications such as hyperparathyroidism and hypo and pseudohypoparathyroidism. It is necessary to carry out Ca2+/P+ metabolism and hormonal studies as well as a computerized tomography in order to confirm the diagnosis of Fahr's disease and rule out other neurodegenerative diseases. The diagnosis of suspicion is clinical and that of confirmation is realized by image. SPECT studies have revealed a marked decrease of the ganglier blood flow in these patients. There is no cure.

G-118
HIGH SENSITIVITY CARDIAC TROPONININ T IN THE EMERGENCY DEPARTMENT. PRELIMINARY STUDY

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Objectives: The development of highly sensitive cardiac troponin (hsTt) has increased the number of true and false positive results for patients suspected of AMI. To check the diagnoses behind hsTt elevated, requested from the Emergency Department. To know the results of hsTt and the true pathology when the physician suspects coronary disease and/or "typical" chest pain.

Material and method: In our study we analysed those patients admitted to the Emergency Ward in Gregorio Marañón hospital from the 1st to the 5th of November of 2011 who had a troponine test performed. We took these dates to take place our study after a randomized selection regarding the minimum period time required to achieve the "n" we prior calculated. For troponine values; we considered resulting test was significantly elevated when troponine was higher than 14 according to our laboratory range parameters. When several tests were performed for the same patient, we took the highest value for our study. Physician that ordered the troponine test were asked, at the time of request, how high was coronary risk factor and how typical was the chest pain in each particular case.

Results: 74.5% of patients were classified as "high coronary risk factors" (only 38.2% of them had elevated hsTt levels), and 68.2% were classified as "typical chest pain" (only 27.3% of them had elevated hsTt). Between the tested hsTt, 47.3% were > 14. 15.45% of patients with elevated hsTt were diagnosed with Heart Failure, 6.4% were diagnosed with arrhythmia, pneumonia 5.5%, 4.6% angina of any kind and the same percentage with kidney failure, a 3.6% appears NSTEACS, anemia and non consolidative respiratory infection. 100% of pneumonias, 81% of Heart Cardiac Failure, 71.4% of the angina pectoris (of any type), 50% of hypertensive crisis, 44.5% of non consolidative respiratory infection, 43.8% of arrhythmias raised hsTt levels. The two pulmonary embolism show levels greater than 14. 30% of musculoskeletal pain diagnoses and 11% of atypical chest pain raised hsTt. About 20% of diagnoses of NSTEACS displayed elevation of hsTt. 39.1% of patients were hospitalized for different reasons.

Discussion: It is interesting low percentage of patients with hsTt > 14 when the physician classified as "high coronary risk factor" and/or "typical chest pain". This troponin, more sensitive, achieves high levels in acute respiratory processes. Heart Failure also often reaches high hsTt values; as well as angina and arrhythmias.

Conclusions: It is very important a careful history and correctly classify the patient's symptoms. Non-AMI patients with acute cardiac injury can produce hsTt results that mimic AMI. Therefore serial hsTt testing must be used in conjunction with clinic presentation and other laboratory findings. Positive values without cardiac causes are increased using hsTt. The acute respiratory processes appear to increase the hsTt.

G-119
TIME IS MYOCARDIUM: A NEW REGIONAL PROTOCOL FOR PRIMARY PERCUTANEOUS CORONARY INTERVENTION IN STEMI GETS TO REDUCE TIME-TO-REPERFUSION

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Objectives: The primary percutaneous coronary intervention (PCI) is the treatment of choice in ST-segment elevation myocardial infarction (STEMI) provided an experienced team and minimal delay. Our main aim is to assess whether the implementation of a regional protocol is a useful strategy to reduce time-to-reperfusion.

Material and method: All patients (P) who underwent primary PCI in our hospital were over 5 years, according to the then current protocol, and were prospectively studied. Patients were divided into 3 groups. Group A: P attended to between 2006 and 2007 in the absence of strategies to reduce reperfusion times (RT), 79 P. Group B: P attended to between 2008 and 2010 according to a few local

strategies to reduce RT, 198 P. Group C: 133 P attended to in 2011 according to a regional reperfusion protocol that coordinates the care of these P between an outpatient emergency system and three hospitals with primary PCI capability. We compared the door-to-balloon times (DTB) between the three groups defined as the time that a patient is in-hospital until the culprit artery has normal flow.

Results: Between 2006 and 2011 a total of 410 P (76% Male) with a mean age of 64 ± 13 years old were treated with primary PCI. The most common location of the STEMI was the inferior wall (42.6%) and the anterior wall was affected in 37%. In-hospital mortality was 4% for all patients and 6% in 1 year follow-up. The median DTB time was significantly shorter in Group B (75 minutes; Interquartile range, 52´-105´) than in Group A (100 minutes; Interquartile range, 75´-120´; $p < 0.001$). Patients of Group C also had significantly shorter DTB time than the two anterior groups (Median 38 minutes; Interquartile range, 26´-71´; $p < 0.001$).

Conclusions: The implementation of a regional protocol for primary percutaneous coronary intervention in STEMI with collaboration between out-hospital emergency system and in-hospital cardiology team is a very useful strategy to reduce the time-to-reperfusion.

G-120
RAPID RESOLUTION AMBULATORY CLINIC. RESULTS FROM THE FIRST 200 PATIENTS

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Objectives: To describe the clinical features of patients visiting a rapid resolution clinic within a General Internal Medicine Service.

Material and method: Data from patients attending the clinic during the last 18 months were recorded. Epidemiological features were analysed. Numerical variables are expressed by means ± SD (range) and compared using Pearson's correlation coefficient. Categorical variables are expressed in absolute numbers (percentage) and compared by means of Chi-square test.

Results: A total of 200 cases were reviewed. Patients were 61 ± 68 (46.25-77) years old. 87 (43.5%) were women. Most of the patients were either illiterate (35; 17.5%) or had only primary studies (87; 47.5%,). Referral origins vary, being the Short Stay Unit (SSU, 77 patients, 38.5%) and a preferent Primary Care telematic consultation center (n = 101, 50.5%) the most preferent options. Referral causes were protean (Table 1). Among classical cardiovascular risk factors, obesity (n = 65; 32.5%), blood hypertension (n = 120; 60%) and dyslipidemia (n = 91; 45.5%) were the most common. 60 patients (30%) fulfilled multimorbidity criteria A total of 7 (3.5%) patients needed hospital admission, despite management in the clinic. A typical Internal Medicine admission was avoided in 122 (61%) cases. Only 6 patients (3%) died during the current follow-up. Poor cultural background was related with poor outcome (need for admission, death by any cause, Chi-square = 30.36; $p = 0.002$). Fulfilling multimorbidity criteria also was correlated with a poorer outcome (Chi-square = 23.42; $p < 0.001$). Cardiovascular risk assed by SCORE also correlated with decease or hospital admission (Chi-square = 212.29; $p < 0.001$).

Discussion: This cohort shows that typical causes of hospital admission might be managed in an ambulatory setting. However, lack of a more robust cohort might limit this interpretation, since it's not possible to foresee saturation of complementary tests, should this procedure be generalized.

Conclusions: An ambulatory setting and appropriate for managing complex clinical problems. However, patients with multi morbidity and/or at high cardiovascular risk should be closely considered in the event of obtaining poor outcomes.

G-121
DIAGNOSTIC PROCEDURES IN OUR AREA OF BRAIN MASS WITHOUT KNOWN PRIMARY NEOPLASM

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Objectives: To analyze the diagnostic procedure performed to patients with finding of space-occupying lesion (SOL) of the brain, without systemic symptoms that points to a primary tumor in another location, in our area.

Material and method: A retrospective study realized beginning with patients admitted from the emergency department of the Hospital Universitario Puerta del Mar (Cádiz) in the past 2 years, in Internal Medicine, Neurosurgery and Neurology departments, with discovery of brain SOL. In the database, 40 patients were collected, from which were excluded those with known primary neoplasm, assuming that the SOL corresponded with metastases thereof.

Results: From the 40 patients chosen for this study, 15 patients were excluded. The median age of presentation was 52, 68% (n = 17) were male. The average of days admitted was 18 days. Of those that were analized, 17 patients did not present any risk factors, the rest were smokers and/or drinkers. The principal complaint of admittance was focal neurological (40%) or more than one symptom (40%), other symptoms such as headache were seen in 16% of patients and seizures in 4%. In 96% and 88% of the patients the analysis and X-ray of the thorax were normal, respectively. Craneal TAC and brain RMN were pathological in 100% of the cases. 76% presented negative tumor markers. Thorax TAC was done on 52% of patients, of which 62.5% were normal. 44% of the patients had an abdominal TAC done, of which 91% were normal. Abdominal ultrasound was done on 36% of patients and was normal in all cases. Around 84% did not have any complementary test done, while the remaining 16% did (mammogram, bone scintigraphy, digestive study, fiberoptic scope). In 50% of cases the presumptive diagnosis was primary brain neoplasia and the other 50% was metastases with no history of known brain neoplasm. Of all of the patients, 56% had a cerebral biopsy done, with 56% resulting in a CNS primary tumor of different histological types, 35% metastases, and 7% of vascular origin. 100% of the biopsies did not have any complications resulting from the procedure. Only 4% of the patients needed anticonvulsive treatment and 64% received corticosteroids treatment. After diagnosis, 32% received radiotherapy and chemotherapy, the rest received other treatments (surgery, antiretrovirals, hormone therapy). 32% of the patients died, with an average of 77 days between admittance and death. Of the dead, 62.5% were patients with a diagnosis of brain metastases.

Table 1 (G-120)

	SSU	General Syndrome	Lymphadenopathy	Anemia	CV Risk Factors	Fever	Others
N (%)	23 (11.5)	31 (15.5)	7 (3.5)	18 (9)	10 (5)	9 (4.5)	76 (53)

Discussion: The presentation of neurological symptoms in patients with a brain lesion in the absence of a known primary neoplasm is not an uncommon occurrence in clinical practice. The initial evaluations of these patients principally includes diagnosis imaging followed by a brain biopsy. However, there is no methodical, well-defined study for the evaluation and management of these patients. Patients with a recently detected brain mass and no history of cancer are often submitted to extensive diagnostic tests in search of a systemic primary neoplasm before carrying out a brain biopsy.

Conclusions: In our area, after obtaining a high percentage of patients diagnosed with a primary CNS tumor with further studies being negative for a primary tumor in another location or for metastases, we conclude that if an analysis, including of a hepatic profile, and an X-ray of the thorax show no trace of a tumor, it may be valuable to do directly a RMN and brain biopsy to arrive at a diagnosis. Although a brain biopsy is an invasive procedure, patients had no complications related to it.

G-122
CHARACTERISTICS AND OUTCOME OF INTERNAL MEDICINE PATIENTS ADMITTED IN AN INTENSIVE CARE UNIT

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Objectives: Describe the characteristics and outcome of patients admitted to a Medical Intensive Care Unit from the Internal Medicine ward and compare them to the rest of patients admitted in the medical ICU.

Material and method: We evaluated 967 patients admitted into a Medical Intensive Care Unit (ICU) of a third level hospital, during a two year period (2006-2007). We selected 81 (8.4%) patients that were admitted coming from the Internal Medicine ward. Age, comorbidities and Modified Charlson Comorbidity Index, severity scores at the time of admission (Acute Physiology And Chronic Health Evaluation III (APACHE-III) and Sepsis-related Organ Failure Assessment (SOFA)), mechanical ventilation requirements (both invasive and noninvasive modes), vasoactive/inotropic drugs requirements, duration of the stay and mortality were registered. Finally we compared both populations (patients coming from the Internal Medicine ward and the rest of ICU admitted patients) to assess differences between them and prognostic factors predicting survival.

Results: From the 81 patients coming from the Internal Medicine ward 48 (59.3%) were men, the mean age was 61.4. The mean Modified Charlson Index was 2.69 and this group presented a mean of 0.481 comorbidities. The main diagnosis at admission was respiratory failure (16%), followed by community acquired pneumonia (11%) and nosocomial pneumonia (8.6%). At ICU admission patients severity and prognosis was evaluated with an APACHE-III index mean of 20 points (SD 6.1), and a SOFA index mean of 6.3 (SD 3.6). During admission non-invasive mechanical ventilation was required in 8.3% of patients, while orotracheal intubation and mechanical ventilation was performed in 50.6%. Other intensive cares such as vasoactive and inotropic drug support was needed in 50.6% of the cases being noradrenaline the most used drug. 13.6% of patients presented severe renal failure during ICU admission needing substitutive renal therapy with hemodiafiltration. Mean ICU stay was 7.4 days, and global survival during hospital admission was 63%. From the 37% of mortality 7.4% of patients died during ICU admission, and 29.6% during regular ward admission after leaving ICU. We finally compared the characteristics of patients admitted in the ICU coming from the Internal Medicine ward (81 patients, 8.4%) and those coming from other departments or the Emergency Room (886 patients, 91.6%). Both groups were statistically equal in characteristics. Statistically significant difference was found only in mortality rate, being global mortality (intra and extra ICU) of patients coming from Internal Medicine ward 37% versus the 20% from those coming from other departments ($p < 0.001$).

Discussion: Patients from Internal Medicine ward are thought to be old patients with much comorbidity, with a high mortality making decision of transfer to ICU a hard choice for clinicians. In this study we characterized all the patients coming from the Internal Medicine ward no matter their age, comorbidity or diagnosis at admission. The results show that this subgroup of patients does not differ in characteristics from the rest of patients admitted in the medical ICU, but they differ in outcome, being mortality of internal medicine patients much higher than mortality of the rest of patients. This fact is not explained by any of the characteristics evaluated in the present study, being necessary to perform further studies.

Conclusions: Patients admitted in the ICU coming from the Internal Medicine ward do not differ in characteristics from those coming from other departments, being mortality the only statistically significant difference, with a higher global mortality in internal medicine patients. With the present study we are not able to infer a cause to explain this difference, so further prospective studies need to be done.

Heart failure

IC-1
PROGNOSTIC INFORMATION OF RENAL FUNCTION MEASUREMENTS IN ACUTE HEART FAILURE

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Objectives: Renal function is a powerful prognostic marker in patients with, both acute and chronic, heart failure. We aimed to evaluate prognostic information yielded by different parameters used to estimate renal function in patients with acutely decompensated heart failure (ADHF), at the time of hospital admission.

Material and method: Five hundred and twenty six patients with ADHF and NTpro-BNP concentration above 900 pg/mL were included in the study. Forty-two patients (7.98%) died during the first 30 days after discharge, and 37 (7.03%) during the following 90 days. Admission blood urea, creatinine, MDRD and Cystatin C were compared between both groups.

Results: age, serum creatinine, MDRD, blood urea and Cystatin serum levels were significantly higher among patients deceased during the first month ($p < 0.05$) (table 1). There were not differences between groups by sex, type of heart failure or comorbidities (atrial fibrillation, diabetes mellitus, hypertension, chronic obstructive pulmonary disease or peripheral artery disease). Kaplan–Meier survival curves at first month showed significant differences according to quartiles of blood urea ($p < 0.05$). Patients with highest concentration of blood urea at admission had the highest one-month mortality. Quartiles of MDRD and cystatin showed no significant differences.

Table (IC-1)

	Age (years)	Creatinine (mg/dL)	MDRD (mL/min/1.73 m2)	Urea (mg/dL)	Cystatin (mg/dL)
Deceased before 30 days	80.3 ± 6.6	1.6 ± 0.6	47.2 ± 21	95.3 ± 42	2.1 ± 0.9
Deceased between 30-90 days	75.7 ± 9.6	1.3 ± 0.7	63.8 ± 33.6	63.4 ± 29.9	1.6 ± 0.7

Discussion: Among patients with ADHF, admission blood urea concentration seems a stronger predictor of short-term mortality with respect to other methods of estimating of renal function. Blood urea concentration is determined by glomerular filtration rate (GFR) plus its reabsorption in the collecting tube. Angiotensin and adrenergic stimulation in acute HF, cause renal vasoconstriction and decrease GFR and renal blood flow, followed by a decreased distal fluid delivery with slow tubular flow in the collecting duct, which enhances the flow-dependent urea reabsorption. It is plausible that blood urea may serve as an index of neurohumoral activation over and above any fall in GFR. This interpretation may explain, at least in part, the strongest predictive capacity showed by urea, in our study, over other estimates of renal function.

Conclusions: among the different estimations of renal function, in patients hospitalised for ADHF, admission blood urea is the strongest predictor of short-term mortality. A blood urea concentration above 0.80 mg/dL in patients admitted to hospital for ADHF should prompt a close follow-up after discharge.

IC-2
HOSPITAL-BASED HEART FAILURE CARE PROGRAM IN A COHORT OF ELDERLY SPANISH PATIENTS: A COMPARISON WITH PREVIOUS STANDARD CARE

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Objectives: The aim of this study is to compare clinical profile and changes in management of Heart Failure (HF) patients after starting a Hospital Based HF Care Program.

Material and method: All consecutive patients admitted into our Internal Medicine Department with HF and included into our Hospital HF Care Program from june 2011 to march 2012 were prospectively recruited. Demographic data, cardiovascular risk factors, clinical, biochemical and echocardiography findings, and treatments at discharge were registered in a specific database integrated in our electronic medical record system. Data were compared with a previous cohort of 74 patients admitted in 2007 into our department with a diagnosis of HF and managed with standard care after discharge. Our Hospital HF Care Program starts during index HF admission, and includes educational measures for patients and caregivers, scheduled specific hospital consults in follow up, and telephonic access to specialist after discharge, to optimize treatment and reduce readmission rates.

Results: 48 patients were included to the Hospital Based HF Care Program; 36 were women (75%). Patient's mean age was 78.3 (SD ± 13.7) years. 39% had a previous history of diabetes and hypertension. Left ventricular ejection fraction (LVEF) was registered in 40 patients (84%), being depressed in 8 (20%); Heart failure was attributed to valvular disease in 30 (62%), and hypertensive cardiomiopathy in 10 (20%). On ECG, 27 (56%) patients were in atrial fibrillation. The primary cause of decompensation was acute infection in 15 (31%), arrhythmia in 12 (25%) and dietary or therapeutic transgression in 5 (10%) At discharge, Loop diuretics were prescribed in 83% of cases, ACEIs or ARBs in 58%, beta blockers in 20%, aldosterone antagonists in 33%, thiazides in 8% and digoxin in 41% of patients. 27% of patients were discharged on home oxygen. Main differential characteristics of previous standard care vs Hospital Based HF Care program patients are listed in table 1.

Conclusions: Patients included in our Hospital Based Heart Failure Care Program were slightly younger than previous standard care cohort; they were also usually women with preserved left ventricular ejection fraction, in atrial fibrillation; increase in EF registration, valvular etiology, and arrhythmia as main cause of decompensation are the most reliable differences between the two cohorts. Among therapeutics, aldosterone antagonists and betablockers had an increase in use, but not reaching statistical significance, probably because of the scarce number of patients, his advanced age and comorbidities.

IC-3
ONE-YEAR AND LONG TERM MORTALITY OF PATIENTS WITH ACUTE HEART FAILURE (AHF) MANAGED IN AN EMERGENCY DEPARTMENT

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Objectives: To determine 1-year and 5-year mortality of patients admitted to an Emergency Department (ED) because of acute heart failure and potential clinical predictors of middle and long-term mortality among these patients.

Material and method: This is a prospective observational study conducted in the ED of a referral Hospital in Madrid, Spain, from Dec, 2002 to Feb, 2003. Patients over 14 years old with a final ED diagnosis of AHF were eligible for inclusion. Mortality was assessed

Table 1 (IC-2)

Patients included n (%)	Standard Care 74	Heart Failure Care Program 48	p
Sex, women	53(70%)	36(75%)	0.83
Age, mean (SD)	81.7(6.5)	78.3(13.7)	0.32
Registered EF	47(63%)	40(84%)	0.02
Valvular etiology	18(38%)	30(62%)	< 0.01
Cause of decompensation: arrhythmia	7(10%)	12(25%)	0.03
Aldosterone antagonists at discharge	14(16%)	16(33%)	0.08
Beta blockers at discharge	13(17)%	10(20%)	0.60

in Dec, 2010 by direct telephone interview and by reviewing the Mortality Registry of the Spanish National Institute of Human Statistics. We also evaluated potential variables that could help to predict 1-year mortality. Finally we combined those variables that best performed as individual predictors of mortality to create a multi-variable predictive model of first-year mortality. Results were considered statistically significant if p value of the regression coefficient was < 0.05. Both descriptive and analytical statistics were performed using SPSS 13.0.

Results: 144 patients were included, mean age 77.45 years and 64% of them were female. At 5 years, 72 (50%) of patients included were died. Of these, 25% (n = 36) died in the first year. Predictor factors at ED admission for 1-year mortality that showed the strongest predictive values were: advanced age, disability (OR = 2, both), systolic and/or diastolic hypotension (r = 0.21) and creatinine level over 1.5 mg/dL (r = 0.18) (p < 0.05 for all analyses). Conversely, the initiation of ACEI therapy at the ED decreased this risk (OR > 2). Hypertension, diabetes or COPD, as well as the presence of chest pain at admission, showed only a trend to be associated to 1-year mortality (p < 0.1; 90% confidence level). A logistic regression analysis was performed combining the most powerful variables, and a predictive model for mortality at the first year was generated. Probability values for an individual > 0.5 (probability of death in the first year exceeding 50%) would allow the ED physician to easily identify a high risk group among HF patients. x = (age*0.146)–(gender*1.341)+ (Cr *1.055)–(0.063*DBP)–(1.576*HT)+(1.163*chest pain)–8.104; x = log(p/(1-p)); p = (exp(x))/(1+exp(x)); gender = 0(women) 1(men);Cr = in mg/dl;HT (hypertension) = 0(yes) 1(no);chest pain = 0(yes) 1(no);p = probability of death in the first year.

Discussion: Acute heart failure (AHF) descompensation is the most common cause of hospital admission in patients over than 65 years and the third cause of cardiovascular mortality with a five years mortality around 50%. In our study we observed a 50% mortality rate within five years and 25% in the first year. Although several prognostic scores like the Seattle Heart Failure Model have been developed, limited information is available concerning long-term prognosis of patients with AHF managed in an ED. We have identified easily available clinical variables that are strong individual predictors of 1-year mortality (age, gender, diastolic blood pressure, creatinine level and the presence of chest pain). We also have developed a model combining those variables to assess the risk of 1-year mortality that could be helpful to drive management decisions and to determine patients' prognosis.

Conclusions: We observed no changes in acute heart failure mortality rate in patients attended due to acute heart failure in an Emergency Department even in spite of the performance of optimized AHF treatment schemes. We have identified easily available clinical variables that are strong individual predictors of 1-year mortality and we have developed a model combining those variables to assess the risk of 1-year mortality that could be helpful to drive management decisions and to determine patients' prognosis.

IC-4
OBESITY PARADOX IN HEART FAILURE ELDERLY PATIENTS; A RELATIVE FINDING

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Objectives: Obesity is a serious problem in western world. In USA adults, obesity reached 32%, increasing to 45% in blacks. Obesity is a pivotal feature of the metabolic syndrome as cause of diabetes, hiperlipemia and hypertension, all them cardiovascular risk factors and cause of premature death. However, in patients with certain diseases such as renal failure in dialysis, COPD, cancer, heart failure, coronary disease and in elderly people, overweight (body mass index (BMI) between 25 and 30 kg/m^2) and obesity (BMI > 30 kg/m^2) are associated with a better long term survival than normal weight (BMI between 20 and 25 kg/m^2). This finding sustained by empirical results on diseased and elderly people, is known as obesity paradox.

Material and method: We included, from January 2005 until July 2008, 244 patients hospitalized with heart failure (diagnosed according to Framingham criteria) at the Internal Medicine unit of a country hospital of Cantabria (Tres Mares Hospital at Reinosa); 115 were men and 129 women with an age range of 55 to 100 years (median age and quartiles of 85 and 79-89 years). Fourteen (5.7%) patients died during hospitalization. All patients were followed up by telephone with a median survival of 984 days. We compared survival between heart failure patients and whole population.

Results: Obese patients with a BMI over 30 kg/m^2 showed a better long term prognosis than those with a BMI 25-30 kg/m^2, than those with a BMI 20-25 kg/m^2 and than those with a BMI under 20 kg/m^2 (p < 0.001). We can observe a higher mortality in patients with heart failure than in general population. In this case the mortality is higher in all groups of heart failure patients, obese, overweighed and normal-low weight patients, but especially in those with low weight and old age.

Discussion: Our results confirm the obesity paradox hypothesis in a group of 244 elderly patients hospitalized by heart failure. As many studies have shown, some of them including thousands of patients, obese ones had a better survival, not only compared with those with a low BMI, but also with those with a normal BMI and with those with overweight. However, this better prognosis must be considered a relative finding, because it is so only when survival is compared between obese and non obese heart failure patients, but not if we compare obese heart failure patients with the whole population. In this case mortality is higher in all groups of heart failure patients, obese, overweighed and normal-low weight patients, but especially in those with low weight and old age.

Conclusions: Our results confirm the obesity paradox hypothesis in a group of 244 elderly patients hospitalized by heart failure, but this better prognosis must be considered a relative finding.

IC-6
CONTINUOUS INFUSION OF FUROSEMIDE IN THE TREATMENT OF HEART FAILURE AT HOME

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Objectives: Describe our experience in the treatment of patients with acute heart failure (AHF) using continuous infusion of furosemide administered by the Hospital at Home Unit.

Material and method: Retrospective study including all patients over 75 years old admitted to Hospital at Home (HaH) Unit in 2011 diagnosed with AHF who needed to be treated with intravenous continuous infusion of furosemide administered using an electronic infusion pump. Patients had not improved with intermittent doses.

Results: 55 patients were treated with intravenous furosemide. 11 patients (20%) required continuous infusion. Mean age was 88 years. 62.5% were male. 25% were diagnosed with dyastolic AHF and 75% with systolic AHF. All patients had NYHA class III. 87.5% were diagnosed with atrial fibrillation, 37.5% had chronic renal failure, 75% high blood pressure and 37.5% diabetes mellitus. The initial dose of furosemide was 80 mg in 87.5% of patients. The

maximum daily dose was140 mg. Mean duration of treatment was 6 days (3-12). Two patients developed hypokalemia, it was corrected with oral potassium. One patient experienced a transient increase in serum creatinine. All patients had a good outcome. None of the patients was transferred to hospital.

Discussion: Patients with acute heart failure treated in HaH with intravenous boluses of furosemide had to be transferred to hospital if clinical condition did not improve. The efficacy of continuous infusion allows treating these patients at home.

Conclusions: Treatment of patients with acute heart failure using continuous infusion of furosemide at home is safe and effective.

IC-7
RED BLOOD CELL DISTRIBUTION WIDTH, IN-HOSPITAL COMPLICATIONS AND PROGNOSIS IN A SPANISH COHORT OF ELDERLY PATIENTS WITH ACUTE DECOMPENSATED HEART FAILURE

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Objectives: A strong association has been recently identified between Red Blood Cell Distribution Width (RDW) and adverse outcomes in patients with heart failure (HF). The aim of this study was to analyze the influence of RDW on in-hospital complications and mortality after discharge in elderly patients with a HF diagnosis.

Material and method: 74 patients aged 70 years old and over, discharged alive with a diagnosis of acute decompensated heart failure from our Internal Medicine Department, were prospectively recruited between February and April 2007. Data collection was carried out during hospitalization and included sociodemographic characteristics, comorbidity (Charlson index), Barthel and Pffeifer scores, cardiovascular risk factors, clinical, hematological, biochemical and echocardiography findings, in-hospital complications and treatments at discharge. RDW was determined on admission and classified as high if it was over the normal upper limit of 15%. Mortality follow up was carried out at 12 and 24 months after discharge through telephonic interview and electronic medical record review.

Results: Mean age was 81.4 (SD 6.5) years; 70% were women. 80% had a previous history of hypertension, 42% of diabetes, 25% of ischemic heart disease (IHD), 30% of dyslipidemia and 20% of chronic kidney disease. Heart failure was attributed to hypertensive cardiomiopathy in 32%, valvular disease in 21% and IHD in 17% of cases. The primary cause of decompensation was acute infection in 43%, hypertensive crisis in 10%, arrhythmia in 10% and dietary or therapeutic transgression in 8% of patients. LVEF was preserved in 74% of patients. In-hospital complications developed in 48% of patients, most of them being respiratory failure (45%), renal failure (26%), delirium (7%) and hyperkalemia (5%) High RDW was found in 47/74 (63.5%) of our patients. It was statistically associated ($p < 0.05$) with male genre, low albumin, low total cholesterol, low relative lymphocyte count and dyslipidemia. No other cardiovascular risk factors, comorbidity, functional status, cognitive status, basal cardiomiopathy or decompensation cause were associated with high RDW. High RDW was statistically associated with in-hospital complications: 40.4% (19/47) patients with high RDW suffered from any complication vs only 7.4% (2/27) patients with normal RDW. Relative Risk (RR) 5.5 95%CI (1.38-21.6) ($p < 0.01$). Two-year crude mortality was 18.9% (14/74 patients). Mortality in patients with high RDW was 21.3% (10/47) vs 14.8% (4/27) in those with normal RDW. RR 1.4 (0.5-4.1)($p = 0.4$). In patients with normal RDW aged over 80 years, mortality was 5.9% (1/17) while high RDW mortality was 27.6% (8/29). Risk difference +21.7% 95%CI (2.0-41.4%) mortality in patients between 70-79 years with normal RDW was 30% (3/10), while high RDW mortality in the same age group was 11.1% (2/18). Risk difference for this strata -18.9% 95%CI (-50.8 to 13.0%). ($p = 0.04$).

Conclusions: In our HF patients, High RDW was related to another prognostic laboratory parameters, and to a higher risk of in-hospital complications. Two-year crude mortality was increased for patients with high RDW, but not reaching statistical significance. We detected an interaction between age and RDW with statistical significance: In the oldest patients, high RDW was significantly associated with increased mortality, but it showed a protective effect in patients between 70 and 79 years. Scarce number of patients can be responsible for this differential association of RDW with mortality influenced by age.

IC-8
ADVANCED HEART FAILURE TREATED WITH SUBCUTANEOUS FUROSEMIDE: DESCRIPTIVE ANALYSIS

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Objectives: Subcutaneous furosemide is an off-label palliative treatment feasible for patients with decompensated advanced heart failure who want to be attended in their homes, thus avoiding hospitalisation. To determine the clinical features of patients attended at home with subcutaneous furosemide because of decompensated heart failure.

Material and method: Cross-sectional study. Inclusion criteria: older than 18 years, heart failure, class III or IV NYHA, treated at home with subcutaneous furosemide (SCF) by a Southern Spanish university hospital at home unit. All episodes of decompensated heart failure (DHF) consecutively attended at home between January 2008 and January 2012 were included for analysis. Qualitative variables were described as number or percentages, quantitative variables were described as mean (SD; range) or median (IQR).

Results: 34 consecutive episodes in 17 patients suffering of decompensated advanced heart failure were included. 11 patients were female (64.7%) and their mean age was 82.94 (7.004). Mean number of hospitalisations in the previous year was 3.294 (2.974; range 0-10), and mean number of emergency departments consults in the previous year was 4.588 (5.466; range 0-23). The mean number of episodes treated with SCF per patient was 2 (1.969; range 1-7), and mean hospital admissions was 1.353 (3.04; range 0-9). Every patient was polypathological, having a mean number of clinical categories of 3.706 (0.772; range 2-5). The mean Barthel Index score was 37.353 (19.455; range 0-70). These patients received a mean number of drugs/patient of 11.563 (5.91; range 3-22). A 50% received ACEI, 25% RAA, 43.8% beta-blockers, 31.3% spironolactone, 18.8% SABA, 25% LABA, 18.8% SAMA, 25% LAMA, 33.8% anticoagulation, 20% aspirin and 10% clopidogrel. These patients received a mean total SCF dose of 932.941 (717.677) mg/episode, and mean daily dose of 161.025 (77.573; range 80-280) mg/day. 8 patients in 20 episodes (58.8%) received a higher than 120 mg/day dose and 7 patients (47.1%) higher than 160 mg/day dose. The mean length of stay per episode was 17.235 (18.863; range 1-69) days, mean number of hospital admissions after the episode was 1.3 (1.636; range 0-4), and mean number of emergency departments consults after was 1.4 (2.459; range 0-8). There were 5 adverse events leading to stop SCF: 3 hematomas, 1 severe local skin infection and one drip removal. At discharge, in 21 episodes patients were followed-up by Primary Care (61.8% of 34 episodes)

and in 2 they were admitted at a hospital ward. 14 died during the period of study (82.4%), accounting for a mean survival time of 191.3 (311.653; range 5.28-1161.49) days.

Discussion: Subcutaneous furosemide is an off-label palliative treatment feasible for patients with decompensated advanced heart failure who want to be attended in their homes, thus avoiding hospitalisation. Clinical essays are needed to establish efficacy and safety of subcutaneous furosemide and allow the subcutaneous route of administration approval.

Conclusions: In the last 4 years, the persons with decompensated advanced heart failure treated with subcutaneous furosemide in our area were mostly female older people who were admitted in multiple occasions to a hospital ward, with high degrees of disability and polymedicated polypathological patients. Subcutaneous furosemide may be a safe feasible alternative for advanced heart failure symptomatic treatment and may avoid numerous hospital admissions in this frail disabled population.

IC-9
ADVANCED HEART FAILURE TREATED WITH SUBCUTANEOUS FUROSEMIDE OR CONVENTIONAL TREATMENT: COMPARISON OF CLINICAL FEATURES BETWEEN BOTH GROUPS

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Objectives: To compare the clinical features of patients treated with subcutaneous furosemide (SCF) at home because of decompensated advanced heart failure (AHF) with those of patients treated with conventional intravenous route of administration (IVF).

Material and method: Retrospective cohort observational study. Older than 18 years patients with heart failure, treated at home with SCF by a hospital at home unit or on hospital ward with IVF in a southern Spanish university hospital were recruited. All episodes of decompensated AHF consecutively attended at home between January 2008 and January 2012 were recruited. Patients attended on wards were selected randomly to be included. Qualitative variables were compared through Chi-square and binary logistic regression analyses and quantitative variables through parametric (Student's t test) or non-parametric (Mann-Whitney's U for median comparison) analyses.

Results: 34 vs 63 consecutive episodes in 17 vs 27 patients suffering of decompensated AHF were compared (SCF/IVF groups). No sex differences were found (female patients 64.7% vs 58.7%; p = 0.362). Significant differences were found for mean age (SCF 82.94 ± 7.004 vs IVF 81.85 ± 7.156; p = 0.000), mean Barthel Index (SCF 31.912 ± 18.049 vs IVF 43.651 ± 32.518; p = 0.024), mean daily dose (SCF 170.807 ± 71.29 vs IVF 130.422 ± 78.031 mg/day; p = 0.012), median [IQR] number of hospital admissions in the last year (SCF 2 [2.75] vs IVF 2 [4]; p = 0.000), median hospital length of stay (SCF 12 [8] vs IVF 7 [7]; p = 0.001) and number of emergency department consults during the last year (SCF 1 [3.25] vs IVF 4 [4]; p = 0.017). However no differences were found for number of clinical diagnostic categories of polypathological patient (PP) (p = 0.099), NYHA class (p = 0.228), number of hospital admissions in the last year (p = 0.383), hospital readmissions and emergency department consults during the next year (p = 0.941 and p = 0.088 respectively), number of drugs/patient (p = 0.699) at inclusion or at discharge (p = 0.956), mean total dose (SCF 878.824 ± 593.846 vs IVF 891.175 ± 762.195; p = 0.281), or time to die after discharge (p = 0.508). Several qualitative variables differed significantly: % patients with neurologic disease with motor handicaps and severe disability (p = 0.035), advanced dementia (OR 6.154, 95%CI 1.511-25.066; p = 0.008),% symptomatic diabetic retinopathy or neuropathy (OR 0.345; 95%CI 0.117-1.02; p = 0.038),% anaemia (OR 18.881; 95%CI 3.932-90.674; p = 0.000), disabling osteoarthritis (OR 5.6; 95%CI 1.977-15.861; p = 0.001), oxygenotherapy (50% vs 81%; OR 4.25; 95%CI 1.693-10.67; p = 0.002) or anticoagulation (26.5% vs 71%; OR 6.79; 95%CI 2.656-17.360; p = 0.000). Only one patient was treated in a ward with SCF. No differences were found between ward and hospital at home for main symptoms, failure of treatment because agony (14.7% vs 6.3%; p = 0.3), death during stay (p = 0.231), evidence-based treatments (ACEI, RAA, beta-blockers, spironolactone), antiagreggation and other features. Furosemide doses were considerably higher at homes, 51.6% received > 160 mg/day at homes vs 48.4% on wards (OR 0.352; 95%CI 0.145-0.855; p = 0.018). However, time to improve symptoms was much lower on wards, as a 76% of episodes needed more than 8 days to improve at homes with SCF vs a 29.2% at wards with IVF (OR 0.130; 95%CI 0.43-0.394; p = 0.000). Survival time did not differ significantly between the two cohorts. Median survival among SCF treated patients (median [IQR]) was 91.309 [172.8] vs IVF treated patients 83.455 [276.873] (p = 0.937).

Conclusions: Similar clinical features were found between patients with advanced heart failure treated at home with subcutaneous furosemide or on ward with intravenous furosemide. Slight differences with lower age, higher Barthel Index score, higher total furosemide dose per episode, but interestingly no difference in survival time although it was a bit worse among admitted patients.

IC-10
FACTORS ASSOCIATED WITH MORTALITY IN PATIENTS WITH ADVANCED HEART FAILURE TREATED AT HOME WITH SUBCUTANEOUS FUROSEMIDE OR AT WARDS WITH INTRAVENOUS FUROSEMIDE

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Objectives: To determine which variables are associated with mortality among patients with advanced heart failure treated with parenteral furosemide at home (subcutaneous, SCF) versus on wards (intravenous, IVF).

Material and method: Observational cohort study. Inclusion criteria: older than 18 years, heart failure, class III or IV NYHA, treated at home with subcutaneous furosemide (SCF) by a hospital at home unit or at hospital ward with intravenous furosemide (IVF) in a Southern Spanish university hospital. All patients with decompensated heart failure (DHF) consecutively attended at home between January 2008 and January 2012 were recruited. Hospitalised patients were selected randomly to be included. Clinical data, including comorbidities, functional evaluation by means of the Barthel Index, drug treatments and furosemide doses were considered. Survival Cox regression univariate and multivariate analyses and Kaplan-Meier curves with log-rank test were performed. SPSS 20.0 was used.

Results: 34 consecutive episodes in 17 patients treated with SCF vs 63 random episodes in 27 patients suffering of decompensated advanced heart failure (SCF/IVF groups) were included for analyses. In univariate Cox regression analysis, being attended at home did not show any significant difference in mortality with healthcare at wards (HR 0.990; 95%CI 0.602-1.673; p = 1.003). Mantel-Cox's log rank test showed similar results (p = 0.861). In multivariate Cox regression analyses, Barthel index score showed a significant effect on survival (aHR 0.981; 95%CI 0.965-0.996; p = 0.015), as did cardioselective beta-blocker treatment (aHR 2.79; 95%CI 1.089-

7.147; p = 0.032), adjusted to ward/home treatment (aHR 0.905; 95%CI 0.391-2.094), chronic lung disease (aHR 0.279; 95%CI 0.391-2.094; p = 0.323), chronic kidney disease (aHR 0.629; 95%CI 0.357-1.107; p = 0.108), chronic anaemia (aHR 0.591; 95%CI 0.262-1.330; p = 0.151), disabling osteoarthritis (aHR 1.923; 95%CI 0.787-4.697; p = 0.151) and number of received drugs (aHR 0.982; 95%CI 0.908-1.062; p = 652). ACEI or RAA treatment, spironolactone, anticoagulation, antiaggregation, long or short acting inhaled beta-agonists and long or short acting inhaled muscarinic antagonists or mean dose of furosemide did not influence the model.

Discussion: The limitations of this study, mainly small sample size and being an observational study should be aware. These are very preliminary results, but offer additional information about off-label palliative treatment of symptoms for older patients with advanced heart failure who desire to be attended in their homes in comparison with conventional healthcare standards. 33 hospital admissions were avoided in very old frail disabled patients.

Conclusions: A lower disability measured by the Barthel Index and treatment with cardioselective beta-blockers associated to lower mortality rates among patients with advanced heart failure admitted to hospital wards or hospital at home units.

IC-11
DOSE-EFFECT RESPONSE OF FUROSEMIDE ADMINISTERED BY SUBCUTANEOUS OR INTRAVENOUS ROUTE

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Objectives: To determine the effects of parenteral furosemide dose amount on hospital length of stay and time to symptom improvement among patients with advanced heart failure treated on wards (intravenous route of administration, IVF) or in their homes (subcutaneous route of administration, SCF) by a hospital at home unit.

Material and method: Retrospective cohort observational study. All consecutive cases of advanced (class III or IV NYHA) heart failure treated with subcutaneous furosemide at home during a 4 year period were matched with randomly selected cases treated with intravenous furosemide at ward. Analysed variables were: initial dose, total dose, mean daily dose, time to symptom recovery and length of hospital stay. Correlations and univariate lineal regression analyses were performed to assess association between variables.

Results: 34/63 episodes were treated with SCF/IVF. The mean initial dose of furosemide was 175.294 (70.076) mg in SCF group vs 122.206 (99.085) mg in IVF group. The medians [IQR] of initial dose were 160 [130] and 80.0 [100] mg respectively (p value = 0.000). The mean total dose/episode was 878.824 (593.846) mg in SCF vs 891.175 (762.195) mg in IVF group. The median [IQR] total dose/episode were 720 [645] and 720 [880] mg respectively (p value = 0.666). The mean number of treatment days/episode was 5.441 (3.007) in SCF vs 7.079 (4.916) in IVF group. Mean time to symptom recovery was 17.24 (15.56) days in SCF vs 7.583 (4.462) days in IVF group. The medians [IQR] of time to symptom recovery were 13 [11.5] and 7 [6] days respectively. The medians of length of stay were 12.5 [8] and 7 [7] days respectively. There was a significant difference between medians of daily dose among the SCF/IVF groups 160/103.75 [151/102.095] (p = 0.004). Initial dose of SCF in patients treated at home inversely correlated with length of stay (Pearson coefficient = -0.426; p = 0.006) and these variables were lineally associated (t = -2.667; p = 0.012), as did also inversely with time to symptom recovery (Pearson coefficient = -0.424; p = 0.017), which associated lineally (t = -2.243; p = 0.035). However, total dose/episode did not correlate with length of stay among patients treated with SCF at home (Pearson coefficient = -0.086; p = 0.628). Among hospitalised patients treated with IVF, initial furosemide dose did neither correlate with hospital length of stay (Pearson coefficient = -0.159; p = 0.107) nor with time to symptom recovery (Pearson coefficient = -0.146; p = 0.162), but total dose/episode correlated with length of stay (Pearson coefficient = 0.636; p = 0.000), which associated lineally (t = 6.439; p = 0.000). Moreover, total dose/episode correlated with time to symptom recovery (Pearson coefficient = 0.501; p = 0.000), and they associated lineally (t = 3.930; p = 0.000). Mean daily dose had a similar effect as initial dose on length of stay and time to symptom recovery (SCF t = -2.653; p = 0.012; IVF p = 0.689).

Discussion: These intriguing results may have a simple explanation. As SCF at homes used to be initiated at high doses, and IVF at hospital wards are administered in an increasing way, total doses result finally in similar amounts of furosemide total dose per episode. At home, the highest dose, the shorter time to symptom remission and the shorter length of stay would result. Also, as SCF is usually administered by continuous infusion, it might result in better outcomes, as suggested by Smits and Dormand's essay (JACC. 1996;28:376-82).

Conclusions: These preliminary results show a lineally associated dose-response effect of subcutaneous furosemide in terms of shorter time needed to improve advanced heart failure patients' symptoms and thus in a shorter length of stay. Total dose per each episode did not significantly differ between the two modalities of treatment.

IC-12
HOW TO REDUCE READMISSION IN CONGESTIVE HEART FAILURE (CHF)? GROUP FOLLOW UP VS CONTROL – 2011

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Objectives: To compare Readmission rates of discharged CHF patients (Group Follow up) from the Hospital, followed monthly telephonically by Hospitalists for 6 months and another Group of patients (Group Control) not beeing followed by hospitalists. We expected to reduce readmissions because better pharmacological compliance and non-pharmacological measures and better quality of care provided after better co-management monthly.

Material and method: In 2011, we asked our Medical Record Department to provide us all the 519 CHF patients discharged from July till December 2010. Randomly, 259 of them were followed telephonically monthly during 6 months (Group Follow up), the other 260 patients were Group Control. Each patient was followed by the same Internist. In the Group follow up, 62 patients were excluded because (24 died prior to inclusion, 19 were not available in the provided phone, 16 refused, 3 were non CHF); thus, we surveyed 197 patients monthly. In the Group Control, 39 were excluded for similar reasons. 221 were followed at the end of the 6 month period; they were not followed monthly.

Results: The patients' characteristics are shown in another Poster and were similar in both Groups. Below we express the admissions the 6 months before the study and the following 6 months either with telephonically Follow up or not.

Discussion: After Hospital discharge of CHF patients, the transitional care interventions and continuity of care recommends periodic follow up either by primary physicians or/and co-managed by Hospitalist. The better quality provided and patient well being should follow less readmission for CHF reagudizations.

Conclusions: The monthly telephonic follow up after CHF discharge did not reduce readmissions (p = 0.06) the following 6 months compared with the patients not being followed. There is

Table (IC-12)

	Admission previous 6 months	Readmission next 6 months
Group Follow up (197 patients)	204 admissions	74 admissions. 18 deaths (64% reduction)
Group Control (221 patients)	267 admissions	100 admissions. 17 deaths. (63% reduction)

p = 0.06

always a reduction after discharge comparing with the 6 months before de study.

IC-13
THE WEEKEND EFFECT ON HEART FAILURE ADMISSIONS

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Objectives: The management of patients admitted on weekends may be compromised because the level of staffing in the hospital is often lower on these periods. This study was conducted to assess what independent influence, if any, weekend admission might have on in-hospital mortality in patients with heart failure (HF).

Material and method: The study included all patients admitted to an acute care hospital of the Public Health Service through an emergency department in Spain between 1st January 2006 and 31st December 2007 with heart failure as the primary reason for admission. We analyzed the clinical data of 257,729. Cases were selected if they were discharged with the diagnosis of heart failure (code DRG 127: Heart failure; DRG 87: Pulmonary edema & respiratory failure, or DRG 544: CHF & cardiac arrhythmia with major CC; DRG-AP.21 version). The relative weight of these DRG was 1.5409, 1.6033 and 3.5968 respectively. We also identify the primary diagnosis of HF using ICD-9-MC codes in the primary diagnosis field: 398.91, 404*, 402.11, 402.91, 428-428.9. The overall mortality according to whether a patient was admitted on a weekend or a weekday was taken into account.

Results: The mean age of the patients was 76.8 years (SD, 11.2); 52.2% of the patients were women. The mean stay was 8.9 days (SD, 7.6). A CCI ≥ 2 was present in 31.1% of the cases. Overall, 22.7% (58.378) of the patients were admitted on weekends, and 199,340 (77.3%) admitted on weekdays. A total of 27,217 (10.6%) patients died during hospital stay. Compared to those seen on weekdays, those seen on weekends had a higher case fatality (11.4% vs 10.3%; OR 1.12 95%CI 1.08-1.15). After adjusting for age, sex, hospital bed size, comorbid conditions, and CCI we found that the odds of death with admission during a weekend were 8.3% higher than during a weekday (adjusted odds ratio [OR] 1.08 95% confidence interval [CI] 1.05-1.11). Analyses of deaths within two days after admission, rather than total in-hospital deaths, generally showed larger relative differences in mortality between weekend and weekday admissions. There was a small increase in mortality among patients admitted do a weekend (3.6% vs 2.9%, OR 1.25 95%CI 1.19-1.32). After adjusted by potential confounder there was a 20% increase in early mortality among patients admitted on a weekend (OR 1.20 95%CI 1.14-1.27).

Discussion: The study demonstrated that HF admissions were more frequent on Monday and least on Sunday, and patient admitted to hospitals via the emergency wards on weekends had an increased risk of dying (8.3%) when compared with patients admitted on weekdays. This excess mortality was independent of age, gender and co-morbidity. An excess of 8.3% in weekend mortality means than 1283 (95%CI 773-1701) HF patients die annually in Spain due to weekend effect.

Conclusions: An increase of in-hospital death was found in patients admitted on weekends compared with weekday even when adjusted for potentially confounding characteristics. Further studies are needed to reveal the possible underlying causes. Quality improvement strategies can then be developed and implemented to standardize care across admission day.

IC-15
ODIMET, KEY TO A NUTRITIONAL STUDY IN HEART FAILURE? CASE-CONTROL SERIES

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Objectives: Malnutrition has a negative prognostic role in patients with acute heart failure (AHF). This phenomenon is being known as "paradoxical effect of obesity" or "the reverse epidemiology of conventional risk factors" in heart failure. ODIMET is a tool designed in web format that allows to calculate nutritional requirements and calories adjusted to every patient. The objective of this study is to evaluate whether this new tool is useful in daily hospital activity.

Material and method: Observational study, case-control series, where we analyzed 20 patients admitted for AHF in Lozano Blesa University Hospital, in Zaragoza, during the period from February to May of 2012, as well as 20 control patients admitted for other pathologies. Patients have been consulted to remember their diet for 24 hours before hospital admission, and analysing them with the program Organizer Metabolic Dietary ODIMET. Both were carried out nutritional test Mini Nutritional Assessment (MNA), which determine the patient's nutritional status. Ultimately, we have analyzed blood parameters, including protein markers: prealbumin and retinol binding protein (RBP). Patients with cognitive impairment were excluded. The statistical analysis has been made with JMP 8 program (ANOVA test).

Results: 47% of the total patients were female (N = 19) and 53% were male (N = 21). The mean age was 77 years, range from 52 to 90 years old. Patients with AHF have a total daily protein intake significantly lower (p = 0.03), with an average of 65 g in cases and 79 g in controls. The consumption of some essential amino acids such as arginine (p < 0.01), histidine (p = 0.0005), methionine (p = 0.009) and threonine (p = 0.0005) were significantly lower in patients with heart failure. No differences were observed in the rest of the essential amino acids or the total consumption daily kilocalories. Patients with AHF have significantly lower prealbumin value than controls (p = 0.028), not so the RBP (p = 0.118). 55% of the cases had a MNA score located in the range of risk of malnutrition, compared with 30% of the controls.

Discussion: Paradoxically, obesity, hypercholesterolemia and hypertension have been associated with less morbidity and mortality in patients with HF. According to recently published literature, patients with HF and obesity have a better long-term prognosis with a higher survival. In this study we found that patients hospitalized for heart failure have a poorer nutritional status than other patients, mainly based on a lower intake of essential amino acids, which determines a protein malnutrition in these patients and the lower values of prealbumin. The organizer dietary ODIMET, commonly used in pediatrics, has become a very useful tool for

assessing the nutritional status of patients admitted to a hospital. It presents a greater interest in those in which malnutrition worsens their survival, as is the case of patients with heart failure. Our approach is to apply the simple survey ODIMET introducing food and dose ingested over 24 hours by a patient, resulting in more than 60 items, which include the amount of amino acids, carbohydrates, fats, vitamins and minerals that consume our patients. With these results, it is easier to approach to their nutritional status, privileged information of their comorbidities and survival.

Conclusions: ODIMET is a new tool that can assess more accurately the nutrition status of patients with heart failure with a simple, easily applicable, reproducible, inexpensive and noninvasive test, thus providing us key information for treatment, evolution and prognosis of these patients.

IC-16
ADVANCED HEART FAILURE IN INTERNAL MEDICINE: THE ROLE OF ESC DEFINITION AND COMORBIDITIES

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Objectives: To evaluate clinical prognostic value of ESC Advanced Heart Failure Definiton (AHFD) in elderly patients with HF, not preselected by their ejection fraction and other predicting factors of mortality.

Material and method: 270 elderly patients with chronic HF were included in a multidisciplinary HF programme managed by nurses and internal medicine physicians. All patients were evaluated retrospectively if they fulfilled AHFD. We compared baseline characteristic between survivors and non survivors. We used t student test and chi-square ($p < 0.05$). A Kaplan Meier survival mortality curve was performed comparing advanced and non advanced HF patients (ESC 2007 definition).

Results: Mean age was 78 ± 9 years and 58% were women. 54% of them have an ejection fraction < 50%. 45 patients fulfilled ESC AHFD (16%). Clinical characteristics associated to mortality between survivors and non survivors during follow up were, respectively: OARS functional status (10.3 ± 4.3 vs 8.1 ± 1.2; $p = 0.029$), Charlson comorbidity index (2.8 ± 1.6 vs 4.0 ± 2.6; $p < 0.001$), haemoglobine (g/dl) (12.6 ± 1.9 vs 11.9 ± 1.9 $p = 0.02$) creatinine (mg/dl) (1.21 ± 0.51 vs 1.48 ± 0.56; $p = 0.02$) and advanced HF by the ESC 2007 definition (8% vs 54% $p < 0.001$). Advanced HF patients have the lowest time to survival during follow up ($p < 0.001$).

Discussion: ESC AHFD is useful predicting mortality in elderly patients with chronic HF not preselected by their ejection fraction. Other comorbidities (ex. functional status, anemia and renal dysfunction) should be considered in the prognosis of elderly patients with advanced HF.

IC-19
N-TERMINAL PRO BRAIN NATRIURETIC PEPTIDES AND HIGH-MOBILITY GROUP BOX-1 IN HEART FAILURE

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Objectives: High mobility group box-1 (HMGB-1) is a nuclear binding protein with a high affinity for the receptor for advanced glycation end products (RAGE). An HMGB1 -RAGE interaction has been implicated in cardiac dysfunction and the complications following ischaemia-reperfusion injuries. Our aim was to analyze the levels of HMGB-1 in patients with heart failure and their relationship with NT-proBNP.

Material and method: Sixty-four consecutive patients at the Heart Failure Unit of the Doctor Josep Trueta University Hospital of Girona from March 2011 to August 2011. Exclusion criteria included descompensation over the last month, neoplastic diseases and immune disorders. Age, sex, smoking, alcohol consumption, cardiovascular risk factors, and current medication were recorded. A transthoracic cardiac ultrasound was performed where no recent study had been undertaken. An LVEF > 45% was considered as preserved. Statistical analyses were performed with SPSS V.15.0 for Windows.

Results: Main baseline characteristics are presented in Table 1. HMGB1 was positively associated with basal glycaemia and triglyceride. HMGB1 negatively correlated with brain natriuretic peptides (Spearman's $r = -0.237$ and $p = 0.059$). HMGB1 did not correlate with aetiology of heart failure or NYHA functional class.

Discussion: This study finds an inverse correlation between HMGB-1 and natriuretic peptides. These results do not concord with results presented by other groups. A possible explanation of this discrepancy may be that HMGB-1 levels are conditioned by factors such as the aetiology of the heart failure, comorbidities and treatments.

Conclusions: The association of Nt-proBNP with HMGB1 in patients with heart failure is not clear, and the role of HMGB1 itself in patients with heart failure remains controversial. The present results lend support to HMGB1 being an inhibitor of brain natriuretic peptide RNA.

Table (IC-19). Some baseline clinical characteristics of patients studied

New York Heart Association classes III to IV	37.5%
Depressed left ventricular ejection fraction	57.8%
Estimated glomerular filtration rate < 60 ml/min	40.7%
HMGB1	2.26 ± 1.19
NT-proBNP (pg/nl)	1,808.19 ± 2,086.82
Basal glucose (mg/dL)	112.81 ± 28.84
Triglyceride	134 ± 55.89

IC-20
IMPACT OF MEDICAL TREATMENT OF HEART FAILURE ON RENAL FUNCTION

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Objectives: The purpose of this study was to analyze the impact of the drugs used to treat heart failure (HF) on renal function.

Material and method: A descriptive, observational and prospective study was performed including patients with primary or secondary diagnosis of HF, according to clinical and echocardiographic criteria, admitted to either medical or surgical hospital between 1999-2002, in the era of pre-beta-blockers. The sample size was calculated with EPIDAT 2.0. The clinical and pharmacotherapeutic histories were reviewed. The study variables were: demographics (age and sex), services involved, residence,

functional class (FC) NYHA (New York Heart Association), prescribed treatments (antiplatelet agents, oral anticoagulants, nitrates, beta-blockers, calcium channel blockers, digitalis, diuretics (not sparing potassium), spironolactone, angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs). Were determined the values of creatinine (pathologic > 1.5 mg/dL) and calculated glomerular filtration rate (GFR) according to the formulas for the Modification of Diet in Renal Disease (MDRD) (pathological < 60 mL/min/1.73 m^2). For the construction of the database and statistical analysis was performed using SPSS 15.0.

Results: A total of 384 patients we analyzed, 205 (53.4%) and the mean age was 74.84 years (age range 36 to 95 years). 75% of the patients belonged to the rural population. Most patients had been admitted to the cardiology (51.6%) and internal medicine (39.8%). Most of the patients were placed in the FC II of NYHA prior to hospitalization (39.8%). The laboratory tests showed creatinine rates average 1.34 (95%CI 1.24 to 1.43) and MDRD of 60.20 (95%CI 57.67 to 62.67%). Of the 384 patients evaluated, 26% had creatinine values > 1.5 mg/dL (higher creatinine levels were observed in patients admitted to internal medicine) and 53.9% (28.3% of women and 25.6% of men) showed values of MDRD < 60 mL/min/1.73 m^2. It was found that with increasing age decreases the values of MDRD ($p < 0.05$). The most frequently prescribed drugs were: diuretics not sparing K+ (84.4%), ACEIs (58.9%), antiplatelet agents (44%), nitrates (42.4%), digital (41.9%), anticoagulants oral (30.5%), spironolactone (23.4%), beta-blockers (16.4%), calcium channel blockers (12%) and ARBs (5.5%). Of all the drugs tested, higher creatinine levels (> 1.5 mg/dL) were found with ARBs (38.1%), nitrates (39.3%), beta-blockers and calcium channel blockers (27%), diuretics and antiplatelet agents (25%) and oral anticoagulants, spironolactone and ACEIs (22%). MDRD values < 60 mL/min/1.73 m^2 were higher with ARBs (61.9%), nitrates (59.3%), calcium channel blockers (59%), beta-blockers (51%), diuretics, and antiplatelet drugs (53%) and oral anticoagulants, spironolactone and ACEIs (50%). When comparing patients using ACEIs, ARBs, and nitrates compared to those not employed were found statistically significant differences ($p < 0.05$) in creatinine and MDRD (higher values of creatinine and lower values of MDRD with treatment).

Conclusions: The renal toxicity of some drugs used in the treatment of HF enhance renal impairment (ACEIs, ARBs...). Despite having a favorable prognosis, prevention must be the primary objective. It is advisable to start with low doses and monitoring of renal function at the beginning and during the first weeks of treatment, especially in elderly patients with comorbidities and polypharmacy. We should bear in mind that the sample was selected patients in the pre-beta-blockers. In conclusion, the elderly patients have a higher risk for kidney disease; the most widely used drugs in the treatment of heart failure were diuretics and ACEIs and some drugs used to treat HF affect specify renal function (ACEIs, ARBs and nitrates) compared with those not taking them.

IC-21
THERAPEUTIC COMPLIANCE IN CONGESTIVE HEART FAILURE (CHF): GROUP FOLLOW UP – 2011

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Objectives: To answer questions about prescribed therapy, to improve pharmacological compliance and to reinforce non-pharmacologic strategies (diet, exercise, weight control, physical therapy, vaccines); as well as to have a reference physician and his/her telephone number to resolve problems if there were present, and fixing a face to face appointment in the outpatient clinics if necessary.

Material and method: In 2011, we asked our Medical Record Department to provide us all the 519 CHF patients discharged from July till December 2010. After randomization, 259 of them were followed telephonically monthly during 6 months (Group Follow up), and the other 260 patients were Group Control. Each patient was followed by the same Internist. In the Group Follow up, 62 patients were excluded because (24 died prior to inclusion, 19 were not available in the provided phone, 16 refused, 3 were non CHF); thus, we surveyed 197 patients monthly. In the Group Control, 39 were excluded for similar reasons. 221 were followed at the end of the 6 month period; they were not followed monthly.

Results: Data from Group Follow up: the mean age was 80.9 y. (SD 12), being 90 of them men. The BMI was 26.8 (DS4). The 91% of patients had written therapy and 15% of them received long term Chronic Oxygen Therapy. Low salt diet was followed by 77%. The 56% of them walked a minimum of 30 minutes daily. All of them followed prescribed therapy (mostly ACE inhibitors or ARBs, beta-blockers, spironolactones and diuretics). Admission in the previous 6 months and Readmissions the following 6 months were accounted and are shown in another Poster. An enquiry about degree of satisfaction was made and showed: 1 non-satisfied, 40% satisfied, 40% very satisfied, 10% excellent idea, 9% no answer. Several patients would wish to continue more follow ups.

Discussion: Follow up of discharged CHF patients by Hospitalists is considered a good clinical practice to assure quality, improve patient management, avoid co-morbidities, answer medical questions and improve treatment compliance.

Conclusions: The direct and personalized monthly phone call up to 6 months of discharged patients with CHF gives a transitional care and comprehensive follow up and continuity of care with general satisfaction, resolving questions about therapy, having clinical outpatient visits, and avoiding readmissions, and reinforcing good general non-pharmacological measures and therapeutic compliance.

IC-22
RESEARCH OF LIPIDEMIC AND OTHER RISK FACTORS FOR CARDIOVASCULAR DISEASE IN MALES AGED 30 TO 50 YEARS OLD IN THE REGION OF CENTRAL AND WEST MACEDONIA, GREECE

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Objectives: To be researched the lipidemic profil and the other risk factors for cardiovascular disease (CVD) in the middle-aged male population, and to be assessed their role in 10- year risk for development of CVD.

Material and method: Material of the research was 112 male aged 30-50 years old, while the evaluation of the risk of development of CVD at the next decade, in all subjects with the relevant risk factors, was committed with the use of the risk lists "score European low risk ".

Results: 67% of the subjects declared their smoking habit. Obese and over weighted were 24%. The average value of BMI was 29.3 ± 3.6 Kg/m^2, while the systolic and the diastolic blood pressure had average values, respectively, 133 ± 10.1 mmHg and 81.5 ± 9.7 mmHg. Hyperlipidemia was established at 32% of the subjects. Increased Blood Pressure was established at 10%, while increased values of blood sugar were documented at 7% of the examined subjects. The average values of relevant biochemical parameters at the blood sample were: Total cholesterol 218 ± 38.5 mg/dl, HDL 46.5 ± 7.8 mg/dl, LDL 148.6 ± 37.8 mg/dl, triglycerides 133.8 ± 80.2 mg/dl, glucose 92.8 ± 10.6 mg/dl. Finally, the involvement of the

risk factors, separately, to the whole risk of the appearance of CVD was: smoking 49.5%, dyslipidemia 43.5% and increased blood pressure 4.7%.

Discussion: It is proved that the risk of CVD is apparently high at the middle aged males. This fact is concerning, taking into account, that the heart attacks at these ages are having high mortality rate because of the non- existing collateral blood circulation.

IC-23
NATRIURETIC PEPTIDES, OBESITY AND HYPERINSULINEMIA IN PATIENTS WITH HEART FAILURE

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Objectives: Natriuretic peptides (BNP and NT-proBNP) are serum biomarkers for heart failure. Obesity has been associated with reduced levels of natriuretic peptides Obesity is also frequently accompanied by insulin resistance. The objective of the present study was to examine the association between obesity, insulin levels and natriuretic peptides in patients with heart failure.

Material and method: From March to August 2011 we included sixty-four consecutive patients who were visited in the Heart Failure Unit of the Dr Josep Trueta University Hospital in Girona. Descompensated patients were excluded. Age, sex, smoking status, alcohol consumption, cardiovascular risk factors, current medication were recorded. Patients were divided by BMI into underweight and normal weight (BMI < 25) overweight (25 to 30) and obese (> 30). A transthoracic cardiac ultrasound was performed on all patients. Statistical analyses were performed with SPSS V.15.0 for Windows.

Results: There were no differences in sex, age, diabetes, chronic kidney disease, dyslipemia, and treatments received. Hypertension was more prevalent in the obese group. Although without reaching significance, high levels of NT-proBNP were found in overweight and obese patients. Both basal insulin and the HOMA-IR were observed to have a significant direct correlation with NT-proBNP plasma levels.

Discussion: This study demonstrates that serum NT-proBNP is lower in patients with high basal insulin and high HOMA-IR. It is difficult to distinguish the specific contributions of obesity and insulin resistance as both conditions often coexist. The low levels of natriuretic peptides associated with metabolic syndrome may increase susceptibility to left ventricular hypertrophy, and this may explain why heart failure with preserved ejection fraction is more frequent in the obese. Increased visceral adipose may reduce natriuretic peptide levels, which may in turn contribute to continued obesity and insulin resistance.

Conclusions: In addition to obesity, it may well be interesting to take metabolic traits such as insulin levels into account when interpreting natriuretic peptide levels in patients with heart failure.

IC-24
COMPARATIVE STUDY ABOUT ATRIAL FIBRILLATION MANAGEMENT IN PATIENTS ADMITTED TO INTERNAL MEDICINE AND CARDIOLOGY

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Objectives: The aim of this study is to compare the clinical characteristics and therapeutic management of patients with atrial fibrillation (AF) getting into the Internal Medicine and Cardiology services, determining the degree of thromboembolism prophylaxis, factors associated with their use and adaptation to clinical guidelines.

Material and method: Based on a previous study in which we review the discharge reports of 100 patients admitted with AF in the Internal Medicine department during the months of August and December 2010, we have compared these with the discharge reports of 100 patients admitted with the same pathology in the Cardiology department during the same period of time.

Results: Most relevant clinical characteristics of both groups are shown in Table 1. We also analyzed heart failure history, ischemic heart disease, thyroid dysfunction and renal failure and found no statistically significant differences. Respect to therapeutic management, cardiologists performed more electrical cardioversions (21 vs 1, $p < 0.001$). The most widely used antiarrhythmic in both services were beta-blockers (Internal Medicine 39%, Cardiology 44%). We use CHA2DS2-VASc scale to determine the anticoagulation need for thromboembolism prophylaxis, and we found that Internal Medicine appropriate prophylaxis was performed in 71% of cases, versus 82% in Cardiology (p 0.067). According to HAS-BLED scale to calculate bleeding risk, 64% of patients admitted to internal medicine were high risk, compared to 35% of cardiology patients ($p < 0.001$).

Discussion: According to clinical guidelines, every patient with CHA2DS2-VASc ≥ 2 should receive oral anticoagulation. In both study populations there is a percentage of patients who don't receive proper thromboembolism prophylaxis (Cardiology: 18% versus 29% of Internal Medicine), finding no significant relation with bleeding high risk, advancing age, score on CHA2DS2-VASc scale or previous thromboembolism history. There is statistically significant association, in both study groups, with AF type, being more anticoagulated patients with persistent/permanent AF that paroxysmal AF (Internal Medicine p 0.038, Cardiology p 0.013).

Conclusions: Despite the proven usefulness of anticoagulation to prevent embolism in patients with any kind AF, even bleeding high risk, there remains a group of patients not receiving adequate prophylaxis. Although patients admitted to Internal Medicine are older and have higher bleeding risk than those admitted to Cardiology, there seems no relationship between these variables and the correct anticoagulation. It has revealed the probable medical belief that paroxysmal AF carries less embolic risk than permanent AF.

Table 1 (IC-23)

	BMI < 25 (n = 21)	BMI from 25 to 30 (n = 25)	BMI > 30 (n = 30)	p
Hypertension	12 (54%)	15 (60%)	15 (84%)	0.029
Diabetes	1 (4.5%)	9 (36%)	4 (22%)	0.07
NT-proBNP	2,628 ± 2,498	1,499 ± 1,926	1,279 ± 1,512	0.083
HOMA	1.2 ± 0.72	2.8 ± 1.84	4.6 ± 5.9	0.005
Insulin	4.7 ± 2.6	9.6 ± 5.9	14.8 ± 16	0.007
Age	66 ± 2.5	69 ± 12	72 ± 10	0.456

Table 1 (IC-24). Clinical characteristics

	Internal Medicine	Cardiology	p-value
Mean age	78.87	72.40	< 0.001
Gender female	58%	44%	0.048
Diabetes	34%	24%	0.119
Hypertension	72%	65%	0.287
Valve disease	45%	51%	0.396
Thromboembolism	29%	18%	0.067
Vascular disease	33%	32%	0.880

IC-25
EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF PATIENTS HOSPITALIZED FOR HEART FAILURE IN INTERNAL MEDICINE AND CARDIOLOGY: ARE THERE DIFFERENCES?

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Objectives: Heart failure (HF) is the final syndrome of numerous cardiopathies and it is the first cause of admission in patients older than 65, which implies a high sanitary cost. In this study we try to analize the epidemiological and clinical differences between patients with HF admitted to an Internal Medicine Department (IMD) or a Cardiology Department (CD).

Material and method: Observational and restrospective study of patients admitted because of HF to Complejo Asistencial, Zamora (CAZA) from November 2010 to March 2011 in IMD and CD. We analyzed the next data: age, sex, length of stay, cause of decompensation and comorbidities: hypertension, diabetes, ischemic cardiopathy, atrial fibrillation and dyslipidemia.

Results: Data from 113 patients were obteined; 55 (27 males) of them admitted to an IMD and 58 (22 females) to a CD. 41 patients (74.5%) in IMD and 22 (37.9%) in CD were over 80 years ($p < 0.005$). See Table 1 and Table 2.

Discussion: The pathologies most frequently associated with HF in patients of both Department were hypertension and atrial fibrillation. Differences between both Department were found in the age, hypertension and ischemic cardiopathy. In IMD the length of stay was higher and the cause of decompensation was more often due to an infection.

Conclusions: 1. Patients admitted in Internal Medicine Department were older and they had higher length of stay and similar comorbidity. 2. Statistically significant differences were found in mean age, length of stay, cause of decompensation and comorbidities as hypertension and ischemic cardiopathy.

IC-26
HEART FAILURE IN INTERNAL MEDICINE AND CARDIOLOGY: DIAGNOSIS AND TREATMENT DIFFERENCES

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Objectives: Heart failure (HF) is the most rapidly growing cardiac pathology in industrialized countries, and already the primary cause of hospital admissions of elderly people. There have not been many studies in Spain of the influence of the admission department on diagnostic and therapeutic management. The objective was to analyze whether diagnosis and treatment management of patients admitted with heart failure depending on the admission ward (Internal Medicine versus Cardiology).

Material and method: Observational and retrospective study of patients admitted because of heart failure to Internal Medicine Department (IMD) and Cardiology Department (CD) in Complejo Asistencial, Zamora (CAZA). from November 2010 to March 2011. We analyzed the next data: determination of N-terminal pro-brain natriuretic peptide (NT-proBNP), echocardiogram, treatment (diuretics, angiotensin-converting enzyme (ACE) inhibitors,

Table 1 (IC-25)

	Internal medicine	Cardiology	p
HTA	35 (63.6%)	50 (86.2%)	0.005
DM	18 (32.7%)	17 (29.3%)	0.568
Isquemic cardiopathy	10 (18.2%)	21 (36.2%)	0.000
Atrial fibrillation	33 (60%)	29 (50%)	0.505
Dyslipidemia	14 (25.5%)	22 (38%)	0.155
COPD	17 (30.9%)	11 (19%)	0.142

Table 2 (IC-25)

	Internal medicine	Cardiology	p
Mean age (years)	82.05	76.9	0.003
Sex	27 M (49.1%)	36 M (62.1%)	0.165
Lenght of stay (days)	9.6	7.8	0.024
Decompensated cardiac causes	4 (7.3%)	25 (43.1%)	0.000
Decompensated infectious causes	27 (49.1%)	10 (17.2%)	0.000

Table 1 (IC-26). Results

	Internal medicine	Cardiology	p
Echocardiogram	20 (42.6%)	47 (81%)	0.000
ProBNP	12 (21.8%)	37 (63.8%)	0.000
IECA/ARB	36 (69.3%)	42 (75%)	0.131
Beta-blockers	23 (50%)	35 (51%)	0.246
Digoxin	16 (32%)	22 (38.6%)	0.477
Diuretics	45 (90%)	48(84.2%)	0.376
Statins	10 (21.7%)	22 (38.6%)	0.006

angiotensin II receptor antagonists, and beta-blockers, digoxin and statins) and inhospital mortality.

Results: Data from 113 patients were obtained: 55 admitted to IMD and 58 to CD. The inhospital mortality was 1.7% in Cardiology (one patient) and 7.3% (four patients) in Internal Medicine (p = 0.152). Table 1.

Discussion: The diagnostic procedure most commonly employed was echocardiography with significant differences between both Departments. The determination of NTproBNP was significant too. The use of ACE inhibitors, beta blockers, diuretics and digoxin was similar in both Departments. Statins were most commonly prescribed in Cardiology (significant difference). There was also no significant differences in hospital mortality.

Conclusions: 1. Less than half the patients admitted to the Internal Medicine Department have an echocardiogram 2. The NT proBNP is poorly applied in Internal Medicine Department 3. There aren´t significant differences in the treatment management and in hospital mortality in both Department.

IC-28
PROGNOSTIC VALUE OF WORSENING RENAL FUNCTION IN OUTPATIENTS WITH CHRONIC HEART FAILURE

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Objectives: Renal impairment has long been recognized as a predictor of worse outcomes in acute heart failure patients. More recently, attention has shifted to worsening renal function (WRF). Despite the growing publication record in this area, data from chronic heart failure (CHF) outpatients are scarce. The aim of this study was to assess the prognostic implications of WRF in ambulatory CHF patients.

Material and method: This study is based on a retrospective cohort of patients with CHF and systolic dysfunction, consecutively referred after Jan 2000. Patients under renal replacement therapy were excluded. Serum creatinine and urea at baseline and 6 months later were considered. Patients who did not have lab tests at 6 months (plus or minus 2) were excluded. The final sample included 277 patients. WRF was defined as a change in serum urea or creatinine categories from below to above 60 mg/dl or 1.5 mg/dl, respectively. An absolute 6-month increase in serum urea or creatinine of 20 mg/dl or 0.3 mg/dl, respectively, was also considered. We used the Kaplan-Meier method to estimate survival free of hospitalization for heart failure after the 6-month exposure period and censored at 5 years. Cox regression was used to estimate hazard ratios (HR) and 95% confidence intervals (95%CI) adjusting for age, and 6-month NYHA class, loop diuretic dose and ACEIs dose.

Results: A third of patients had urea > 60 mg/dl and 14% had creatinine > 1.5 mg/dl from baseline. An increase in urea from below to above 60 mg/dl occurred in 17% and 19% had an increase of at least 20 mg/dl. An increase of serum creatinine from below to above 1.5 mg/dl and an increase of at least 0.3 mg/dl affected 8% and 16% of patients, respectively. Of the 277 patients, 66% were alive and free from hospitalization for heart failure at the median follow-up time of 2 years. In comparison with patients with preserved renal function at 6 months, an increase in serum urea from below to above 60 mg/dl or in serum creatinine from below to above 1.5 mg/dl were each associated with a more than double risk of death/hospitalization (adjusted HR: 2.3, 95%CI 1.3-4.1; 2.8, 95%CI 1.5-5.2, respectively). The HR for urea > 60 mg/dl or creatinine > 1.5 mg/dl sustainedly from baseline were 1.6 (95%CI 1.0-2.7) and 1.1 (95%CI 0.6-2.2). An increase of serum urea of at least 20 mg/dl and of creatinine of at least 0.3 mg/dl doubled the risk (HR: 2.0, 95%CI 1.2-3.4; 2.2, 95%CI 1.3-3.7, respectively).

Discussion: Although the relationship between WRF and survival in CHF has already been reported in several multi-centre studies of CHF, our study reinforces this association in ambulatory patients, a population less studied. The definition of WRF we used, based either on urea or creatinine, is arbitrary but follows previous studies, which contributes to comparability and supports its predictive value. Data were analysed only at two defined points during follow-up, and factors that could affect the renal function in the intervening periods such as hospitalizations, medications, dehydration, or exposure to intravenous contrast were not taken into account. Finally, patients who had incomplete data sets at the baseline or follow-up were not included in the analysis, potentially introducing selection bias. The retrospective design is an advantage avoiding changes in practice due to study participation.

Conclusions: In ambulatory CHF patients, WRF was associated with a clinically relevant worse outcome, independently of important confounders, and added prognostic value to renal dysfunction per se.

IC-29
TELEMONITORING IN PATIENTS WITH ADVANCED HEART FAILURE: HEALTH@HOME EXTENSION STUDY PRELIMINARY DATA

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Objectives: To determine clinical features, effectiveness on clinical and healthcare outcomes, quality of life, and satisfaction with the telemedicine platform Health@Home (H@H) in patients with advanced heart failure.

Material and method: Inclusion criteria: older than 18 years-old, informed consent, heart failure of any origin, NYHA class III-IV, being admitted to an internal medicine ward, potential ability to handle a telemedicine platform, absence of terminal cancer or agony. After a training period in the ward, patients were randomly

assigned to telemedicine and hospital at home follow-up or conventional healthcare. Patients were followed up during 4 weeks. Functional evaluation was performed by means of Barthel index for basic activities of daily living and NYHA class. Quality of life was measured through Minnesota Living with Heart Failure (MLHF) and EuroQoL-5D (EQoL-5D) questionnaires at the inclusion time and at the end of follow-up period. Number of hospital admissions and emergency department consults were taken into account in a 6-month period previous to inclusion and in the first month of follow-up. Qualitative data were expressed as numbers/percentages, quantitative data as means (SD) or medians [IQR]. Qualitative variables were compared by means of chi-square and quantitative variables through parametric (Student's t test) or non-parametric analyses (Mann-Whitney's U test for median comparison) when appropriate after Kolmogorov-Smirnov test. SPSS v20.0 was used. A P value of 0.05 was considered for statistical significance.

Results: 19 patients were recruited. 11 patients were assigned to telemedicine intervention (H@H) and 8 to conventional healthcare (control group). 2 H@H patients were lost during follow-up as they showed being not able to handle the devices when applied in their homes. Mean age was 75.5 (10.65) years in control group vs 79.90 (10.53) in H@H group (p = 0.385), mean NT-proBNP was 2696.5 (84.58) vs 6428.4 (5303.33) (p = 0.195), mean initial MLHF was 96.5 (4.11) vs 97.36 (2.73) (p = 0.615), end of study MLHF was 79.71 (28.18) vs 63 (34.74) (p =), ejection fraction percentage was 60.86 (11.84) vs 55.18 (12.54) (p = 0.350), end diastolic left ventricle diameter was 40.31 (5.18) vs 45.45 (7.43) (p = 0.104), the mean number of emergency department consults in the last 6 months was 2.5 (2.62) vs 3 (1.55) (p = 0.640), initial EQoL-5D was 21.25 (9.5) vs 32.27 (12.32) (p = 0.042), end of study EQoL-5D was 53 (23.88) vs 52.86 (30.39) (p = 0.993) for control and H@H groups respectively. No differences were found between groups neither for number of hospital admissions in the last 6 months (median controls 1 [0] vs H@H 1 [1]; p = 0.395), number of hospital admissions during follow-up (0 [0.75] vs 0 [0]; p = 0.6) and number of emergency department consults during follow-up (0 [0] both groups; p = 0.840) nor quality of life measures (initial EQoL-5D p = 0.051; end EQoL-5D p = 1.0; end Minnesota p = 0.318). Patients satisfaction with the H@H platform was good (median score 9 [1.75]), being a 37.5% a score of 10/10, 37.5% 9/10, 12.5% 8/10 and 12.5% 7/10. All patients who ended the study considered easy or very easy to handle the system, with the exception of the 2 patients who were lost because they did not use H@H at home at all. A total amount of 106 alarms were received, of which 25 (23.6%) helped to change treatments and avoided 5 hospital admissions and 22 emergency department consults. The mean number of alarms per patient was 9.64 (9.26), being relevant as decision making tool 2.27 (2). A mean of 0.45 (0.688; range 0-2) hospital admissions and 2 (1.73, range 0-5) emergency consults per patient could be avoided by the system. One patient in the control group died during follow-up.

Conclusions: The H@H system may afford relevant day-to-day clinical information, is well accepted by the patients and their carers and may help avoid hospital admissions and emergency department consults in patients with advanced heart failure.

IC-31
CONGESTIVE HEART FAILURE IN INTERNAL MEDICINE REQUIRING URGENT ATTENTION CARDIOLOGICAL

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Objectives: This is a study that analyzes the profile of patients with congestive heart failure requiring urgent attention and even pass Cardiology Service during your stay in Internal Medicine. We analyze morbidity and mortality, cardiovascular risk factors and associated techniques that require such patients from the Cardiology Department.

Material and method: This is a descriptive, retrospective, observational and not controlled study. The sample consisted of those patients who were initially admited in the internal medicine department with a diagnosis of congestive heart failure are discharged from the cardiology Welfare Complex in Leon in 2010.

Results: We analyzed a total of 31 patients of whom 20 were men (64.5%) with a mean age of 75.10 years. As a personal history of cardiac disease highlights before admission in 74.2% and lung pathology in 48.4%, mainly COPD. Toxic habits (9.7% current smokers and 12.9% occasional drinkers). HTA 71.%, DM 32.3%, 35.5% with DL numbers mean LDL 97 (max. 242, min. 37.6). CKD was diagnosed in 29% of patients. However, no evidence of severe hyperkalemia in any case, being the average number of registered potassium 4.42 (max. 5.55, min. 3.2). The average hospital stay for these patients was 13.26 days. Echocardiography was performed in 77.4% of patients, pathological in all cases. The electrocardiogram and chest radiograph in history consisted of all patients, the normal electrocardiogram in 32.3% (10 patients). The chest radiograph was normal in 16.1% of patients and showed signs of congestive heart failure in 71%, cardiomegaly in 6.5% of cases and pleural effusion in 6.5%.

Discussion: The treatment of heart failure includes, according to recent clinical guidelines, available pharmacologic and nonpharmacologic measures. Among the non-drug measures we have cardiac resynchronization as a rare therapy in elderly patients (only one case in our study, a 77 year old patient with dilated cardiomyopathy with severely depressed ejection fraction, functional class NYHA IV.

Conclusions: We realized that the profile of patient admitted to the Internal Medicine Department have an average of old age, with morbidity related to established cardiovascular risk factors and polypharmacy. Exceptionally they required technical approach by the Department of Cardiology and a multidisciplinary heart failure unit, in order to improve our health care assistance and to reduce readmission rates.

IC-36
RELIABILITY OF POINT-OF-CARE POCKET-SIZE ECHOCARDIOGRAPHY PERFORMED BY AN INTERNIST IN A MEDICAL DEPARTMENT

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Objectives: To study the usefulness and reliability of point-of-care pocket-size echocardiography at the bedside in the evaluation of cardiac structures of patients admitted to a medical department.

Material and method: Patients admitted to our medical department with standard indications for echocardiography underwent an echocardiography evaluation, performed with a pocket-size ultrasound device, with B-mode and colour flow imaging, by an internist with a previous specific training of 25 hours. Patients were then referred to subsequent high-end echocardiography, performed by an expert cardiologist at the Eco-laboratory. Left ventricular dysfunction, pericardial effusion, valvulopathy and right atrial and ventricular enlargement were assessed in both cases an compared in order to establish the accuracy of the test to detect cardiac structural anomalies.

Results: Nineteen patients were evaluated between January and April 2012, 42% men, median age 72 years. The principal diagnosis was heart failure. Left ventricular dysfunction was present in five

and all patients were well classified. Pericardial effusion was present in one patient and all patients were well classified too. There were four patients with right atrial and ventricular enlargement, but only two were correctly classified, with positive and negative predictive value of 67% and 88% respectively. There were nine patients with significant valvulopathy, eight correctly classified, with positive and negative predictive value of 89% and 90% respectively (e.g. Mitral regurgitation). Global accuracy of the test for detecting any structural anomaly is shown in Table. Global positive predictive value was 89% (95%CI: 0.74-1.03) and negative predictive value was 95% (95%CI: 0.89-1.01).

Discussion: Left ventricular dysfunction, pericardial effusion, valvulopathy and right atrial and ventricular dilatation are important parameters in assessment of cardiac function. Point-of-care pocket-size echocardiography has been used for screening, and can be performed in a few minutes by a trained internist as a complement to physical examination. Data of this study show, in line with other publications, that pocket-size ultrasound performed by internists has good correlation with high-end echocardiography, performed by an expert cardiologist, in the four above mentioned parameters, obtained in a semiquantitative scale. The best accuracy was obtained in the assessment of left ventricular function and pericardial effusion. This may be of high importance in patients with heart failure and in the emergency department.

Conclusions: Point-of-care pocket-size echocardiography examination can be used by internists for the screening of cardiac structures and function in patients admitted to medical department.

Table 1 (IC-36)

	Reference positive	Reference negative
Pocket-size positive	16	2
Pocket-size negative	3	55

IC-39
ANALYSIS OF A SERIES OF PATIENTS ADMITTED TO INTERNAL MEDICINE (IM) WITH HEART FAILURE (HF) AND DEPRESSED LEFT VENTRICULUM FUNCTION (LVEF)

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Objectives: The aim of this study was to conduct a descriptive analysis of clinical features, treatment and evolution of patients with heart failure (HF) and depressed left ventriculum function (LVEF) admitted to our hospital in 2010.

Material and method: 31 patients admitted with diagnosis of HF and LVEF < 45% were studied. We evaluated age, sex, comorbidities (hypertension, diabetes (DM), dyslipidemia, smoking, renal failure with Cr > 1.4 mg/dL, and chronic obstructive pulmonary disease –COPD-), etiology, systolic function, New York Heart Association (NYHA) functional class, adequacy of treatment, ECG at admission and evolution.

Results: N = 31 patients. Mean age 81 ± 7 years. Sex: M 71%, F 29%. Mean admission time was 9 ± 7 days. The number of readmissions per patient in 2010 was 2.3 +/-2.5. Prior history: hypertension 71%, atrial fibrillation (AF) 48%, dyslipidemia 45%, ischemic heart disease 42%, renal failure 39%, DM 32%, smoking 26%, COPD 19%. Etiology of HF, 45% ischemic, 23% hypertension, 19% valvular diseases, 10% cardiomyopathy; 3% idiopathic. NYHA Functional class: 3% I, 37% II, 50% III and 10% IV. ECG on admission: 30% sinus rhythm, 7% pacemaker, 63% atrial fibrillation (AF). Pharmacological treatment at admission and at discharge is described in Table 1. Evolution: 77.5% discharge home, 6.5% center for chronic diseases, death 16%. Mortality at the end of 2010 was 25.8%.

Discussion: HF can be classified as systolic HF, with depressed LVEF, or diastolic HF, with preserved LVEF (LVEF > 45-50%). Both types show different characteristics. HF with depressed systolic function has a worse prognosis, with increased mortality and readmissions. Various pharmacological treatments can alter the course, but are often underutilized.

Conclusions: Compared to previous studies (OPTIMIZE, CORONA, EMPHASIS, SHIFT….) our population was older. Incidence of HF with depressed LVEF was higher in men and patients with history of hypertension and ischemic heart disease. Frequency of AF in our patients was higher compared to previous studies. Most subjects elonged to NYHA functional classes II or III, similar to other studies. Mortality was high. The proportion of patients with optimal pharmacological treatment is low.

Table 1. (IC-39)

Treatments	Admissions	Discharges
Spironolactone	12.9%	12.9%
Eplerenone	3.2%	3.2%
ACEI	41.9%	38.7%
ARBs	19.4%	16.1%
Beta-blockers	38.7%	22.6%
Ivabradine	3.2%	3.2%
Digital	29%	29%

IC-40
CLINICAL CHARACTERISTICS AND OUTCOMES OF THE OLDEST OLD HEART FAILURE PATIENTS

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Objectives: In elderly patients Heart failure is one of the first causes of hospitalizations. Data about the characteristics of the oldest older patients are scarce. We try to evaluate clinical characteristics, and 1-year outcomes, defined as mortality and new hospitalizations, in patients older than 80 years with hospitalized heart failure in internal medicine and cardiology departments of our institution.

Material and method: Retrospective analysis of patients admitted to a Cardiology and Internal medicine departments of a University Teaching Hospital, during the first quarter of 2010. Sociodemographic data, Comorbidities (following PROFUND comorbidity Index), Cognitive status, Clinical echocardiographic and biochemical characteristics, treatments before and after admissions, and outcome (mortality and rehospitalizations one year after hospitalization) were reviewed from the electronic clinical records.

Results: Data from 157 subjects were collected. A 62.4% were women, with a mean age of 86.8 ± 4.63 years (range 80-104 y). Only 12.4% were living in nursing assisted homes, 19.7% had a mild dependency and 37.6% were non dependent. Comorbidities were present as follows: 6.6% were smokers, 84.1%, 31.2% hypertensive, 45.1% diabetics, 47% dyslipidemics, 47%had atrial fibrillation, 41.1% chronic kidney disease, 12.1% atherosclerotic or cardioembolic cerebrovascular disease, 27.4% had COPD, 10.2 had peripheral arterial disease, 53.2% previous Heart failure, and 25%

ischemic cardiomyopathy. 47.5% were pluripathological patients (Profund comorbidity index > 5). 34.4% Presented as "de novo" Heart Failure and 45.2% as a reagudization of a chronic heart failure, 8.3% were hypertensive heart failure, 6.4% presented as pulmonary edema, and 1.3% as cardiogenic shock. 31.8% had no echocardiography, 55.1% had systolic dysfunction and 44.9% had preserved ejection fraction. Only 35.6% received betablockers, 41.5% ACEI or ARB, and only 12.7% Aldosterone antagonists. At one year of follow up 31.65% died in the first year and 46% required new hospitalization, a total of 70.8% of patients presented a bad outcome defined as rehospitalization or death at one year of follow up.

Conclusions: In our study, oldest old heart failure patients are highly comorbid, and present a worse outcome. Unless this worser outcome, those patients were less studied and treated, that younger patients. An intervention to improve management of those patients is needed. New studies should clarify prognostics factors relevant for these patients outcome.

IC-41
NUTRITIONAL ASSESSMENT IN PATIENTS HOSPITALIZED FOR HEART FAILURE

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Objectives: To determine the nutritional status and dietary habits in patients hospitalized for heart failure.

Material and method: This is an observational study. The inclusion criteria were consecutively accepted in 30 patients older than 70 years with a diagnosis of heart failure (HF) admitted in the Internal Medicine unit from Reina Sofia University Hospital and gave their consent to participate in the study. Variables of the study: demographic data, anthropometric measurements (height, weight, perimeter: waist, hip and wrist; folds: biceps, triceps and subscapular). The body mass index (BMI), was calculated using the following formula = weight (kg)/height (m^2). It was classified the degree of obesity, following the criteria of the WHO. We applied a food frequency questionnaire for obtain information about the preferences and eating habits of the sick, deficit and excess in the consumption of certain nutrients and the number of calories they consume daily. In all the participants, analytical determinations were carried out are: triglycerides (TG), total cholesterol (TC), high-density lipoproteins (HDL-c), low density lipoprotein cholesterol (LDL-c), albumin, glucose and leukocytes. It was classified the cardiovascular risk by the waist-hip index [very high: 3, high: 2, low: 1]. We established the constitution with the relationship body size-wrist [large: 3, medium: 2, small: 1]. Finally, with the Foulkner equation, we established the fat levels in the patients [low: 1, high: 2]. A descriptive analysis of the sample was made with the SPSS 20.0 program.

Results: Mean age of 83 years, 63% women. The average BMI was 27 kg/m^2. The average values of the folds biceps, triceps and subscapular were 13.5 mm, 13 mm and 16.6 mm, respectively. The average values of the abdominal perimeter were 103 cm, above normal values (88 cm in women and 102 cm in men). In the analytical measurements the average values were: CT 164 mg/dL, HDL-c 35 mg/dL, LDL-c 103 mg/dL, TG 128 mg/dL, uric acid 8 mg/dL, glucose level 137 mg/dL, albumin 4 g/dL, leukocytes 10.34 × 10^3/µL. The average calorie intake was 2,374 kcal/day. In relation to the consumption of fat the average values obtained were: total fat 105 g/day (40 per cent of the total caloric intake), saturated fat of 24 g/day (9 per cent of the total), monounsaturated fats 56 g/day (20 per cent of the total). The consumption of carbohydrates supposed 39% of the daily intake. Proteins were 21% of the total. The average consumption of fiber was 16 g/day. The cardiovascular risk by the waist-hip index was: very high: 48%, high: 41%; low: 10%. The body constitution by the size-wrist relationship was: large 38%, median: 41%, small: 21%. Finally, based on Foulkner equation, fat levels were: low: 61%, high: 39%.

Discussion: The anthropometric data translate into an excess of body fat with a BMI above the reference values and an increase in caloric intake that exceeds the values means recommended (1,500 calories for women and 1,700 calories for men). We also see an imbalance in the consumption of the immediate principles with an excessive consumption of fat. Carbohydrate consumption was lower than the recommended. All of these data have implications for an excess of body fat in 61% of our patients as well as a high cardiovascular risk (4%) and very high (4%) in patients.

Conclusions: Patients admitted to hospital for heart failure have obesity, excessive caloric intake mainly at the expense of fat and a high cardiovascular risk.

IC-42
CLINICAL IMPLICATIONS OF DIFFERENT BIOMARKERS IN ELDERLY PATIENTS WITH HEART FAILURE

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Objectives: To determine the importance of neuroendocrine and inflammatory biomarkers in elderly patients with HF.

Material and method: In this retrospective and observational study performed in patients > 70 years old with HF, TNF-alpha, IL1-beta, IL6, IL18, IL10, Fas (Apo1), BNP and C-reactive protein values were calculated. The relationship between them and the clinical evolution of this population was also determined.

Results: A total of 124 patients (mean age 83 ± 5 years; 32.2% men) were included in the study. With regard to the type of HF, 27% of patients had systolic HF, 54% diastolic HF and 19% valvular disease. Mean follow-up was 2.4 years. Overall, 92% of patients had hypertension, 37% diabetes, 60% atrial fibrillation, and 17% ischemic heart disease. During this period, 20.1% of patients were attended in emergency department for HF, and 40.3% hospitalized for HF. Moreover, 15.3% of patients died during the follow-up. With regard to biomarkers, those patients who were hospitalized for HF showed higher values of IL-6 (9.8 ± 13.1 vs 4.65 ± 5.8; p = 0.003). However patients who died showed higher values of IL-18 (437.1 ± 137.4 vs 299.7 ± 167.2; p = 0.01), C-reactive protein (12.6 ± 19.4 vs 6.1 ± 9.4; p = 0.03), BNP (704.2 ± 428.6 vs 418.5 ± 410.6; p = 0.008) and cystatin C (1.76 ± 0.6 vs 1.45 ± 0.5; p = 0.04), with a trend to lower values of TNF-alpha (1.4 ± 2.5 vs 2.81 ± 4.6; p = 0.07).

Discussion: Neuroendocrine and inflammatory systems are activated in heart failure (HF) patients. Although in the last years there is a growing interest for inflammatory mediators in chronic HF, these have been mainly studied in patients < 70 years old with left ventricular systolic dysfunction. However, data about the importance of these biomarkers in elderly patients with HF are scarce. The main results of this study showed that in elderly patients with HF, the determination of some of these biomarkers may predict which patients will be more likely to die or be hospitalized for HF.

Conclusions: In elderly patients with HF, the determination of biomarkers may be helpful to establish those patients at higher risk of death or hospitalization for HF.

IC-43
TREATMENT WITH AMBRISENTAN IN A COHORT OF PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION

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Objectives: We report our experience in the treatment with ambrisentan in patients with pulmonary hypertension (PH) in a specialized Unit in a third level Spanish Hospital.

Material and method: A retrospective case note review was carried out of all patients diagnosed with PH according to the Dana Point Classification (DPC) and treated with ambrisentan from 2010 to 2012. We analysed the type of PH, functional class at diagnosis as well as the outcomes during follow up.

Results: Thirty patients received ambrisentan (25 women, 83.4%). Median of age at diagnosis was 55.5 years-old (IQR 33.5-67). Diagnosis was chronic thromboembolic pulmonary hypertension in 1 patient and pulmonary arterial hypertension (PAH) in the other 29: 8 (27.6%) idiopathic PAH, 14 (48.3%) connective tissue disease associated PAH (11 scleroderma and 3 systemic lupus erythematosus), 4 (13.8%) congenital heart disease associated PAH, 2 (6.9%) HIV associated PAH and 2 others. 2 patients (6.67%) were in functional class (FC) I, 15 (50%) in FC II, 7 (23.3%) in FC III and 6 (20%) in FC IV at diagnosis. Twenty patients (66.6%) could walk > 325 metres in the 6-minutes-walking test (6-MWT). Diagnosis was confirmed by right heart catheterization in all cases [median (IQR): PCP 12 mmHg (9.25-13), mPAP 50 mmHg (41-56), cardiac output 4 l/m (3.3-5.9), PVR 8.86 Woods U (6-14.3)] and only 2 had a positive vasodilator test. Mean time from diagnoses of PAH to adding ambrisentan was 5 years. Initial treatment was bosentan in 17 cases (53.6%), sildenafil in 5 (16.6%), subcutaneous treprostinil in 5 (16.6%), intravenous epoprostenol in 2 (6.6%) and ambrisentan in 1 (3.3%). Nineteen patients (63.3%) required combination therapy and 11 (36.7%) remained on monotherapy. Initial daily dose of ambrisentan was 5 mg in 86.7% and 10 mg in 13.3%; 5 patients first treated with 5 mg needed to increase the dose to 10 mg after a median of 8 months. The most frequent side effects observed were mild hypertransaminasemia (2 patients), minor bleeding (2), nasal congestion (2) and flushing (1). At the end of follow-up, 23 patients (76.7%) were alive: 20 patients (83.3%) improved or remained stable, 17 (70.8%) were in FC I or II and 14 (58.3%) could walk > 325 metres in the 6-MWT. Seven patients (23.4%) died: 5 due to progression of PAH, 1 for sepsis and 1 for lung cancer.

Discussion: Ambrisentan is a safe and effective treatment for PAH.

Conclusions: PAH is a severe disease with high mortality. Its prognostic has considerably been improved in the last years because of the development of specifics drugs like the endotelin receptors antagonists. In the recent literature, ambrisentan has demonstrated a significant improvement of the functional class and effort capacity, increasing the time until clinical worsening and the survival up to 3 years. Therefore, our data are in agreement to all these findings.

IC-46
PROSPECTIVE STUDY OF HEART FAILURE HOSPITALIZATIONS: CLINICAL AND ANALYTICAL PROFILE AND FACTORS ASSOCIATED WITH LENGTH OF STAY AND HOSPITAL READMISSION

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Objectives: Determine the clinical profile of heart failure (HF) patients admitted to Internal Medicine (MI) department. To identify prognostic factors associated with readmission for HF.

Material and method: Prospective study of patients admitted to the Internal Medicine Department from February 1st to March 31st 2012, diagnosed with heart failure. We analyzed the following variables: sex, age, principal and associated diagnosis, functional status, physical examination and laboratory tests that included blood tests, chest radiograph, electrocardiogram and echocardiogram, stay and readmissions. The coded variables were analyzed with SPSS 12.0.

Results: Of the 107 admissions with suspected HF, it was confirmed in 81 cases (75.7%) 51.9% were female and mean age 83.01 ± 8.42 years, being significantly higher in women (84.71 years) than men (81.18 years). The average hospital stay was 9.62 ± 7.78 days. The main echocardiography diagnosis were in 27.9% left ventricular dysfunction, diastolic heart failure 14.8%, 13.6% hypertrophic cardiomyopathy, pulmonary hypertension 11.1% and 4.9% severe valvular disease. The most common precipitating factors were infection (44.4%) and decompensated arrhythmia (16%). Functional status (NYHA class) on admission was grade IV (60.5%), grade III (30.9%) and grade II (6.2%). The mean Charlson index admission was 7.28 ± 2.86. 34.5% of patients had 2 or more points of social fragility (own scale: 0-4 points). 46.9% of patients had anemia with Hb < 12 mg/dl and 12.3% Hb < 10 mg/dl. 81.5% of patients have an elevated pro-BNP (> 2000). Most patients improved in the first 48 hours of admission: 73.6% of patients had SO_2 > 90%, 70.5% disappearance of edema and 78.2% disappearance of dyspnea. At discharge, only 8.8% of patients were in grade III-IV of NYHA. More than half of patients (55.6%) had other income in the last 12 months and 16% were early readmissions (last 15 days). When we considered associated variables to hospital admission, we objectify the Charlson index, the scale of social fragility and anemia were associated with higher rates of readmission for HF, such associations being more relevant than those found for ejection fraction (EF) and proBNP.

Discussion: In this series emphasize the high average age (75% were over 79 years) and comorbidity of our patients (almost 75% had scores greater than 5), quite above other series and especially for patients admitted to Cardiology Services. Moreover, despite its "impaired" functional class at admission, therapeutic response was generally favorable and relatively quickly. The high rate of hospital admissions of our patients, however, reveals a high risk of decompensation and poor outpatient control of the disease.

Conclusions: The identification in our setting of anemia, high Charlson index and social fragility as the main factors associated with readmission, to select a subgroup of patients at high risk of decompensation in a proactive monitoring ambulatory likely improve control disease and decrease hospitalization.

IC-47
PREDICTORS OF VENTRICULAR FUNCTION RECOVERY IN PATIENTS WITH HEART FAILURE

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Objectives: Among heart failure (HF) patients with left ventricular (LV) systolic dysfunction, a variable proportion recovers to a normal ejection fraction. Characteristics associated with that recovery are poorly known. We intended to determine the prevalence and the predictors of recovery of LV systolic function in HF patients.

Material and method: We conducted a retrospective cohort study including HF patients with LV systolic dysfunction, admitted to an outpatient HF clinic between 2000 and 2011, who had at least two echocardiograms during follow-up. Clinical, laboratory and echocardiographic data were collected from medical records. Continuous variables were presented as median (interquartile range) and compared using the Mann-Whitney test. Categorical variables were presented as proportions and compared using qui-square test. Logistic regression was used to identify predictors of LV function recovery. The associations were quantified using multivariable-adjusted odds ratios (OR) and 95% confidence interval (CI).

Results: From a total of 295 patients, 201 (68%) were men. The median age was 64 years (31-92). Ischaemic etiology was present in 128 patients (43.4%) and 183 patients (62%) presented a severe systolic dysfunction. Seventy-six patients (25.8%) recovered LV function during follow-up. On univariate analysis, only a younger age (HR: 0.97 [0.95-0.99], p = 0.003), female gender (HR: 0.50 [0.29-0.86], p = 0.013), non-ischemic etiology (HR: 0.47 [0.27-0.82], p = 0.008) and an history of hypertension (HR: 2.18[1.23-3.89], p = 0.008) were associated with that recovery. On multivariate analysis, a younger age (HR: 0.96[0.94- 0.98], p = 0.001), female gender (HR: 0.46[0.26-0.83], p = 0.01) and history of hypertension (HR: 3.25[1.69-6.25], p < 0.001) maintained that association.

Conclusions: In conclusion, only few clinical and demographic variables were associated with LV function recovery. Despite the clinical belief that in non-ischaemic HF the left ventricular function tends to recover more often, in our series that was offset when adjusted for sex and age. Having a higher blood pressure before the development of HF seems to correlate independently with left systolic function recovery.

IC-48
PREDICTORS OF READMISSION FOR HEART FAILURE PATIENTS

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Objectives: The objective of this study was to know the clinical characteristics of admitted patients with heart failure (HF) and to determinate predictors of readmission in our department over the past 5 years.

Material and method: Retrospective analysis of 681 HF patients admitted between January 2007 and December 2011. Patients were divided into two groups: Readmission group (RG) and group of non-readmission (NRG). Within RG was divided in: readmission within 1 month, between 1 and 6 months, between 6 and 12 months and more than 12 months. We analyzed demographic data, clinic, echocardiography and laboratory variables. We performed a bivariate statistical analysis, comparing the qualitative variables with Chi-squared test and quantitative variables with Student's t-test.

Results: 265 patients (38.9%) were included in the RG, of which 15.4% were within the first month, 23.4% between 1 and 6 months, 23.4% between 6 and 12 months, and 37.8% more than 12 months. They had an average of 3 admissions (2-12). The average hospital stay of RG was higher in two days respect to another group (10 vs 8, p < 0.01). The RG was older (73.2 vs 71.8 years old, p = 0.002) and had fewer foreigners (8.7 vs 17.5%, p = 0.001). However, there were no gender differences with a male/female percentage 60/40. In the RG were more frequent high blood pressure (HBP) (86.8 vs 74.8%, p < 0.0001), diabetes mellitus (DM) (54 vs 38.2%, p < 0.0001), ischemic cardiomyopathy (ICM) (49 vs 46%, p < 0.05), atrial fibrillation (AF) (45.7 vs 36.3%, p < 0.05), chronic obstructive pulmonary disease (COPD) (26.4 vs 19.2%, p = 0.01), anemia (47.9 vs 33.7%, p < 0.001) and chronic kidney failure (CKF) (36.2 vs 21.4%, p < 0.0001). Readmitted patients had higher hospital mortality (11.3 vs 3.1%, p < 0.0001) and worse functional class, 61.1% with NYHA 3 or more compared to 36.8% of NRG.

Discussion: Heart failure is the leading cause of hospitalization and readmission in many hospitals world-wide. It is associated with an important morbid-mortality. Variables like HBP, DM, ICM, AF, COPD, anemia and CKF are readmission's determinants. These factors have been described in previous studies along with systolic dysfunction, although in our study is not a readmission variable, also showing that ventricular ejection fraction does not interfere much in the heart failure prognosis.

Conclusions: Several clinical factors determine the morbi-mortality and prognosis including an older age, associated comorbidity and functional class. All these factors are detectable at the time of hospital admission.

IC-49
BOSENTAN IN THE TREATMENT OF A COHORT OF PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION

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Objectives: Evaluate the response to bosentan in an specialized unit in pulmonary hypertension (PH) of a third level hospital.

Material and method: We analyzed data collected from a protocol in patients diagnosed with PAH according to the Dana Point's Classification, using for it clinical, laboratory and haemodynamic information.

Results: Sixty-eight patients were treated with bosentan (80.9% women, mean age at diagnosis 51.7 years-old). Diagnosis was chronic thromboembolic PH in 4 patients (5.9%), veno-occlusive pulmonary disease in 1 (1.5%), neurofibromatosis associated PH in 1 (1.5%) and arterial pulmonary hypertension (HAP) in 62 (92.6%): 20 idiopathic (32.2%), 33 connective tissue disease associated PAH (53.2%), 7 congenital heart disease associated cardiopathy (11.3%) HIV associated PAH (3.2%). Mean evolution time before starting bosentan was 0.86 ± 1.46 years. At baseline, functional class (FC) was I 11.1%, II 44.4%, III 26.7% and IV 17.8%, mean value of systolic pulmonary arterial pressure (PAP) estimated by echocardiogram was 70 mmHg and mean distance covered in the 6 minutes walking test (6MWT) was 387.9 meters. Diagnosis was confirmed by right heart catheterism in all cases, with the following mean values: median PAP 48.6 ± 15.1 mmHg, PCP 11.7 ± 4 mmHg, PVR 9.5 ± 6.6 Woods U, CI 2.7 ± 1 l/minute/m2, RAP 11.5 ± 12 mmHg. Bosentan

was the initial treatment in 40 patients in monotherapy (58.8%) and associated in 2 (2.9%), 23 patients (11.8%) required combination therapy. Bosentan was replaced with other endothelin receptor antagonist (ERA) in 7 patients (16.7%). At the end of follow-up 35 patients (51.5%) were alive: 19 patients (54.3%) improved or remained stable, FC was I 2 (2.9%), the IInd 25 (36.8%), the IIIrd 22 (32.4%) and the IVth 18 (26.5%) and mean distance covered in 6MWT was 408 meters. Thirty three patients (48.5%) died during follow-up: progression of PAH (16, 48.5%), infection (4, 12.1%), sudden death (3, 9.1%), toxic multifactorial hepatitis (1, 3%) and unknown (9, 27.3%). Mean survival 9.00 (5.31-12.69) years (Kaplan-Meier method was performed to estimate survival).

Discussion: PAH is a serious disease whose prognosis has improved dramatically in recent years by the development of new drugs. ERA are a mainstay of treatment. In studies, bosentan resulted in a significant improvement in FC, exercise capacity, time to clinical deterioration and survival, and was the first drug that was shown to increase survival in FC II. Analysis of our data reinforces the evidence.

Conclusions: Bosentan is a safe and effective treatment for PAH.

IC-50
USEFULNESS OF POCKET-SIZE BED-SIDE ULTRASOUND FOR DIURETIC MANAGEMENT OF ELDERLY PATIENTS WITH ACUTE HEART FAILURE

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Objectives: To evaluate the clinical usefulness of assessing the congestive state by a pocket-size point-of-care ultrasonography in the treatment with diuretics of elderly patients admitted for acute heart failure to a medical department.

Material and method: Twenty-one consecutive older than 80 patients admitted with acute heart failure underwent a cardiopulmonary limited ultrasound examination using a pocket-size echography device, by interpretation of subcostal IVC diameter (< 12 mm, 13-17 mm or > 17 mm), and collapse (none, < 50% or > 50%) and protocolized multiple intercostal views in each patient in order to detect the comet-tail artifact, which is indicative of interstitial pulmonary edema. Each patient was then classified as having or not interstitial edema (IE = yes/no), and having high, normal of low central venous pressure (CVp = H/N/L) and a theoretical algorithm pointed diuretics management (increase, decrease, maintain). A different physician classified the same patient also in these categories attending to usual clinical practice (pulmonary auscultation and assessment of elevated jugular venous pressure and hepatojugular reflux) and collected the real diuretics management. This evaluation was made at the internal medicine ward, after 12-24 hours of on treatment initiated in the emergency room. We analysed how many patients changed their classification, and therefore their treatment, because of ultrasound examination.

Results: We studied 21 patients, 13 women and 8 men, median age 86. The etiology of heart failure was ischemic in 6, valvular in 4, dilated myocardiopathy in 2 and hypertensive in 9. Ejection fraction was preserved in 12 cases. Data obtained with ultrasonography changed classification in 9 cases. Two of them had a different diagnosis: one neumonia and one pulmonary fibrosis. In 5 cases that were classified clinically as having interstitial edema and right congestion, ultrasound reclassified patients in no-edema and deplective state, which should drive to low or remove diuretics. In the 2 other cases, clinical examination classified the patients as no interstitial edema and no right congestion, and ultrasound revealed tail-comet artifact in all points examinated, which should drive to increase dose of diuretics.

Discussion: The lack of specificity of many of the signs of heart failure, especially in elderly individuals makes difficult to interpret signs of decompensated heart failure in the acute setting in these patients, and many of them are given exceeding dose of diuretics, which can drive to a hypoperfusion state and dehydration leading to hypotension and renal dysfunction. The presence of the comet-tail artifact detected by bed-side performed echography can be a more objective sign of left congestion, and the measure of inferior vena cava diameter and collapse can assess the state of right congestion and deplective state. This test changed classification in many patients in our study. Pocket-size ultrasonography, performed by an internist, may be a complement to physical examination, improving the evaluation and management of patients with acute heart failure, providing a better adjusted dose of diuretics.

Conclusions: Performation of a pocket-size point-of-care ultrasonography improves evaluation and treatment of congestive state in elderly patients admitted for acute heart failure.

IC-51
CARDIORENAL SYNDROME IN PATIENTS WITH ACUTE DECOMPENSATED HEART FAILURE-CLINICAL AND PATHOPHYSIOLOGICAL CHARACTERISTICS

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Objectives: CRS type 1 occurs when acute decompensated heart failure results in activation of hemodynamic and neurohormonal factors leading to an acute drop in glomerular filtration rate and the development of acute kidney injury. Our objectives are to examine the impact of this problem and to describe clinical and pathophysiological profile of these patients.

Material and method: We included in our study 24 consecutive, unselected patients admitted in our cardiology clinic in one year, in whom diagnosis of cardiorenal syndrome was established after admission.

Results: Patients clinical characteristics: Age: 58-81 years. Gender: Males/females: 17/7 (70.84% vs 29.16%). Smoking: 10 (41.66%). Males/females: 7/3. Obesity: 8 (33.33%). Males/females: 5/3. Dislipidaemia: 14 (58.33%). Males/females: 9/5. Comorbidities: Diabetes Mellitus: 11 (45.83%), Metabolic syndrome: 6 (25%), Hypertension: 18 (75%), Anemia: 15 (62.5%). Previous use of drugs: Antiinflammatory agents: 5 (20.83%), Diuretics: loop diuretics: 20 (83.33%), thiazides: 5 (20.83%), ACEI/ARB: 22(91.66%), Aldosteron receptor antagonists: 19 (79.16%), Betablockers: 20(83.33%). History of heart failure or impaired left ventricular ejection fraction: 24 (100%). Prior myocardial infarction: 10 (41.66%). NYHA functional class: Class III: 11 (45.83%). Class IV: 13 (54.16%). Severe atherosclerotic vascular disease: 9 (37.5%). Low systolic blood pressure at admission: 7 (29.16%). Low serum sodium: 10 (41.66%). Elevated cardiac troponines: 8 (33.33%). Elevated CPK-MB: 4 (16.66%). Elevated hs CRP: 15 (62.5%). Chronic kidney disease: 14 (58.33%). Creatinine > 2 mg/dl: 5 (20.83%). Creatinine > 3 mg/dl: 3 (12.5%). Intrahospital mortality: 4 (16.66%). Readmission in first month: 5 (20.83%).

Conclusions: CRS identifies patients at the limits of hemodynamic compensation and most susceptible to increased morbidity and mortality. Risk factors for renal dysfunction in heart failure are hypertension, diabetes, severe vascular disease, elderly age and past history of heart failure, renal disease or both.

IC-52
COMORBIDITIES IN PATIENTS WITH UNDERLYING HEART DISEASE IN A SPECIALTY HOSPITAL OF THE SSPA

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Objectives: Nowadays, is usual that patients with ischemic heart disease associate comorbidities independently of traditional cardiovascular risk factors. Our study seeks to know what are the most frequent comorbidities present in patients with acute coronary events in our center.

Material and method: Descriptive study including patients admitted for decompensated heart pathology in our center during 2011 in Cardiology Service. Study variables: Age, sex, toxic habits, comorbidity, between another factors.

Results: Total patients enrolled, 392. Average age: 65.039 ± 1.2035. Male: 57.653%. Toxic habits: tobacco (22.959%) or alcohol (8.163%). Associated disorders: Diabetes mellitus (42.09%), COPD (8.418%) or chronic renal failure (6.378%).

Discussion: Most patients with underlying heart disease in our center are men aged over 65 with significant consumption of tobacco showing high comorbidity, depending mainly from diabetes and COPD.

Conclusions: It is important to carry out a comprehensive approach to these patients pathologies. The assistance to underlying pluripathological patients it's nowadays, even more frequent, where the work of the Internal Medicine Physicians who performs a comprehensive patient assessment is essential for proper care.

IC-53
CLINICAL PROFILE OF RENAL FUNCTION IN PATIENTS WITH HEART DISEASE INFLUENCE OF IONIC CHANGES IN THE OUTCOME AND AVERAGE HOSPITAL STAY IN A SPECIALTY HOSPITAL OF SAS

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Objectives: Determine the influence of renal profile of patients with heart disease in the outcome and average hospital stay in our center.

Material and method: We included patients admitted with heart disease in the Universitary Hospital Puerto Real (Cádiz) in 2011. Variables studied: creatinine serum levels, urea, sodium (Na), potassium (K), renal function by Cockcroft-Gault, average hospital stay. The results were analyzed based on the characteristics of a descriptive study.

Results: Been seen that 30.07% of the patients (392 patients) in the present study, presents serum creatinine levels greater than 1.3 mg/dl or creatinine clearance less than 50, and 47.02% presents BUN levels above 40 mg/100 ml mean + 5.15 - 0.66 versus 5.076 ± 0.3878, but if we consider patients with serum levels greater than 2.5 mg/dl, we observe an average of 5.23 ± 1.02. Hyponatremia (values below 135 mg/dl) the 14.32% of patients, although no alterations in the average days of stay (4.73 ± 0.84). Presented hypokalaemia (values above 5 mg/dl) in 11.084% and hyperkalemia in 9.157% with a corresponding mean of 4.96 ± 4.837 + 0.92 and -1.2 respectively, presenting no changes in the average stay established.

Discussion: In patient with heart diseases, increasingly, there is often a pathology associated where you have to take account of renal function and Na and K alterations. In our study, 30% had renal function alterations, but the presence of hyponatremia and hypokalemia was not associated with increased length of hospital stay.

Conclusions: We perform a comprehensive assessment of patient with heart disease, paying attention to the pathology associated. The presence of altered renal function is common in patients with heart disease and was not associated with increased length of stay. The work of the Internal Medicine physician in this clinical setting is critical for proper patient care.

IC-54
INDICATIONS FOR ANTICOAGULATION IN PATIENTS WITH ATRIAL FIBRILLATION AND HEART FAILURE. ARE WE GOING IN THE RIGHT DIRECTION?

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Objectives: This study analyzes the implementation of clinical practice guidelines in our environment, in order to know the adherence to anticoagulation (ACO) indications in hospitalized patients with heart failure (HF) and atrial fibrillation (AF).

Material and method: We reviewed discharge reports of 212 hospitalized patients with HF and AF, during the period between May 2011 and April 2012. We collected demographic data, medical history, comorbidity factors and history of AF specifying treatment with antiplatelet and/or anticoagulation before admission and at discharge. We calculated the CHADS2 and CHADS2vasc, as thrombotic risk score, and scale HASBLED about the risk of bleeding. We collected patients with ACO and patients who did not have anticoagulant therapy, being indicated, and the characteristics of them. To evaluate the relationship between categorical variables it was used chi-square test and to evaluate continuous variables relationship, student t-test or Mann-Whitney U-test.

Results: Out of 212 patients studied, hospitalized with HF and AF, 43% (91) were male and 57% (121) female, mean age 82 years (SD: 9 range 48-100). Comorbilities associated were Hypertension 87.3% (185), type 2 diabetes 49.5% (105), ischemic heart disease 30.2% (64) and stroke 20% (43). The average score of the Barthel index was 70 points (SD: 36 range 0-100). Almost all patients 62.7% (133), had heart failure with preserved ejection fraction. CHADS2 mean score was 3.8 points (SD 1.4, range 1-6), CHADS2vasc 4.5 points (SD: 2.2, range 1-9) and HASBLED score was 3.5 (SD 1.7, range 1-9). In our series more than 90% had indication to anticoagulation, according to the guidelines. Before hospital admission, 42% (89) were taking anticoagulation drugs, 19.1% (17) of them had double treatment with antiplatelet and anticoagulation drugs. After admission, 43% (91) kept treatment with ACO, 23% (21) with double therapy. Otherside, 36.3% (66) of all patients were receiving antiplatelet therapy, a trend which continued to rise, given that 39.7% (81) of them followed this treatment. Before admission 12.6% (23) of patients and after discharge 18% (37) did not receive any antithrombotic treatment. Only in 19.8% (24) it was specified the reason to not use anticoagulation therapy in patients who did not take it. There were no significant differences in the scales CHADS2, CHADS2vasc and HASBLED between patients with and without ACO. However, patients who did not have anticoagulation treatment were, significantly, older than who did (mean age 83 vs 79 years, p = 0.007), and they had poorer functional status, measurement by Barthel index (63.9 vs 79.2, p = 0.02). Any patient with Barthel index 0 did not receive treatment with ACO.

Discussion: It is well known the strong impact on the scientific medical community that the complying new guidelines of ACO in AF have. This is accentuated, if it is possible, by the appearance, and

even marketing, of new oral anticoagulants drugs. These reasons are made us review physician adherence guidelines regarding anticoagulation use in the patient type hospitalized in internal medicine. These results showed poor adherence to the guidelines; the trend of anticoagulation in our area is low, being indicated in almost all patients, but less than half did receive ACO. Elderly, pluripathology and poor functional status could explain these results.

Conclusions: In patients with heart failure and atrial fibrillation: old age, comorbidities and low functional status, call for a thorough and conscientious management of anticoagulation indications. In fact, these factors determine the physicians therapeutic decision, despite CHADS2, CHADS2vasc, and HASBLED scores. In conclusion, in our environment we did not prescribe anticoagulation according to guidelines. Less than 50% of patients which it is indicated, did not receive anticoagulant therapy.

IC-55
DECOMPENSATED HEART FAILURE REGARDING BLOOD PRESSURE IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To describe basal and semiological characteristics, therapeutic strategies and clinical outcomes recopilated in a small sample of older inpatients diagnosed of heart failure and admitted to the department of Internal Medicine of Ramon and Cajal Hospital at Madrid.

Material and method: We selected thirty two patients managed as decompensated heart failure (HF), during 1st semester of 2010, excluding those with severe valve disease and whose clinical course did not agree with heart failure. We collected their basal characteristics, blood tests and treatment, focusing on treatment in the first 12 hours according to systolic blood pressure (SBP) and outcomes related to them. We sorted patients by blood pressure in 4 groups: low pressure (SBp < 85), normal systolic pressure (SBP between 86 and 105 or SBP between 106 and 139) and higher blood pressure (SBP > 140). We measured percentage of deaths, hospitalization-time and time from first attendance to death (if happened) in days. When collected the whole database, we calculated rates and means using SPSS 15.0.

Results: Thirty two patients were selected, 65.6% women, averaged 82 years old. Most of them (93.8%) had hypertension, chronic renal insufficiency 56.3% (mean creatinine 1.72) and atrial fibrillation 62.5%. Signs and symptoms were orthopnea (71.9%), jugular ingurgitation (31.3%), edemas (68.8%) and lung crepitation (78.1%). Mean SBP at attendance was 133.2 mmHg (± 30.5). Among therapeutic strategies in the first 12 hours, 3 patients were managed with only fluids (9.4%), 2 were treated with volume expansion plus furosemide (6.3%), 65.6% with furosemide and 15.6% with furosemide plus vasoactive drugs (Dopamine). After the first 6 to 8 hours after the treatment started, blood pressure (BP) did not change too much, being SBP 129 (± 28.3). Serum creatinine after 12-24 hours of treatment was 1.77 (closed to the first determination). We also found an average of 11.57 (± 10) days of hospitalization. We recorded 5 deaths (15.6% from total), all of them had chronic renal failure. Initial levels of serum creatinine of deceased were 2.36 mg/dl and 1.6 mg/dl among survivors. Four of 5 deceased had HF with preserved ejection fraction. All death patients had systolic BP between 86 and 139 (80% between 86 and 105) while among those who lived, 3.7% had SBP 86-105 and 48.1% had SBP 106-139. All deaths had impaired renal function 12 to 24 hours after admittance, while survivors had only 27.3%. Intravenous dose of furosemide at the first 6 hours was, on average, 40 mg (maximum 80 mg). Other treatments used: intravenous digoxin 18.8%, non-invasive mechanical ventilation 3.1% and intravenous nitrites 9.4%. Mean of hospitalization time was shorter in those with SBP > 140 (8 days), and it increased progressively: SBP 106-139 (10.5 days); SBP 86-105 (16 days) and 22 days in those with lower SBP at the time of attendance. From those patients with SBP 86-105, 75% had renal impairment while this impairment was present only 42.9% among the group with SBP 106-139.

Discussion: Recommendations about management of HF do not include clear statements for older patients with decompensated HF and normal BP (SBP 85-139) whose management is more difficult than those presented in guidelines. In that context, we focused on those therapeutic strategies used in clinical practice during the first hours of treatment, when doubts about the final diagnosis of the patient are present, describing outcomes of these patients, both deaths and impairment of renal function. Our results show that BP may be determinant in the clinical course of our patients.

Conclusions: Management of older normotensive (SBP > 85 mmHg) patients with decompensated HF, impaired renal function and normal BP is difficult, and current guidelines do not give specific recommendations.

IC-56
PHARMACOLOGICAL TREATMENT AS PREDICTOR OF OUTCOME IN THE OLDEST OLD HEART FAILURE PATIENTS

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Objectives: In elderly patients Heart failure is one of the first causes of hospitalizations. Data about the characteristics of the oldest older patients are scarce. We try to evaluate clinical characteristics, and define the predictors of 1-year outcomes, defined as mortality and new hospitalizations, in patients older than 80 years with hospitalized heart failure in internal medicine and cardiology departments of our institution.

Material and method: Retrospective analysis of patients admitted to a Cardiology and Internal medicine departments of a University Teaching Hospital, during the first quarter of 2010. Sociodemographic data, Comorbidities (following PROFUND comorbidity Index), Cognitive status, Clinical echocardiographic and biochemical characteristics, treatments before and after admissions, and outcome (mortality and rehospitalizations one year after hospitalization) were reviewed from the electronic clinical records.

Results: Data from 157 subjects were collected. A 62.4% were women, with a mean age of 86.8 ± 4.63 years (range 80-104 y). Only 12.4% were living in nursing assisted homes, 19.7% had a mild dependency and 37.6% were non dependent. Comorbidities were present as follows: 6.6% were smokers, 84.1%, 31.2% hypertensive, 45.1% diabetics, 47% dyslipidemics, 47% had atrial fibrillation, 41.1% chronic kidney disease, 12.1% atherosclerotic or cardioembolic cerebrovascular disease, 27.4% had COPD, 10.2 had peripheral arterial disease, 53.2% previous Heart failure, and 25% ischemic cardiomyopathy. 47.5% were pluripathological patients (Profund comorbidity index > 5). 34.4%.At one year of follow up 31.65% died in the first year and 46% required new hospitalization, a total of 70.8% of patients presented a bad outcome defined as the combination. Only 35.6% received beta blockers, 41.5% ACEI or ARB, and only 12.7% Aldosterone antagonists. Only aldosterone antagonists showed a significant difference as for mortality, with a 23.3% of mortality in those untreated vs a 0% in those treated (p 0.039).

Conclusions: Oldest old heart failure patients are highly comorbid, and with a worse outcome. Those patients were less studied and treated, for different reasons as frailty and adverse effects, in our study treatment with aldosterone antagonists was related to a reduction in mortality. These findings deserve new studies.

IC-57
PREDICTORS OF OUTCOME IN THE OLDEST OLD HEART FAILURE PATIENTS: BIOLOLOGICAL DATA

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Objectives: In elderly patients Heart failure is one of the first causes of hospitalizations. Data about the characteristics of the oldest older patients are scarce. We try to evaluate clinical characteristics, and define the predictors of 1-year outcomes, defined as mortality and new hospitalizations, in patients older than 80 years with hospitalized heart failure in internal medicine and cardiology departments of our institution.

Material and method: Retrospective analysis of patients admitted to a Cardiology and Internal medicine departments of a University Teaching Hospital, during the first quarter of 2010. Sociodemographic data, Comorbidities (following PROFUND comorbidity Index), Cognitive status, Clinical echocardiographic and biochemical characteristics, treatments before and after admissions, and outcome (mortality and rehospitalizations one year after hospitalization) were reviewed from the electronic clinical records.

Results: Data from 157 subjects were collected. A 62.4% were women, with a mean age of 86.8 ± 4.63 years (range 80-104 y). Only 12.4% were living in nursing assisted homes, 19.7% had a mild dependency and 37.6% were non dependent. Comorbidities were present as follows: 6.6% were smokers, 84.1%, 31.2% hypertensive, 45.1% diabetics, 47% dyslipidemics, 47% had atrial fibrillation, 41.1% chronic kidney disease, 12.1% atherosclerotic or cardioembolic cerebrovascular disease, 27.4% had COPD, 10.2 had peripheral arterial disease, 53.2% previous Heart failure, and 25% ischemic cardiomyopathy. 47.5% were pluripathological patients (Profund comorbidity index > 5). 34.4%. At one year of follow up 31.65% died in the first year and 46% required new hospitalization, a total of 70.8% of patients presented a bad outcome defined as the combination. Regarding to systolic dysfunction, CKD, and biological data only BNP (p 0.038), higher Potassium levels (p 0.005) and higher creatinine ($p < 0.005$) levels were associated with higher rates of readmission or death.

Conclusions: Oldest old heart failure patients are highly comorbid, and with a worse outcome. In our study BNP levels were related to a worse prognosis as in younger population, but only creatinine and potassium levels showed a significant association to a worse outcome. This finding deserves new studies.

IC-58
DIFFERENTIAL CHARACTERISTICS BETWEEN OLDEST OLD HEART FAILURE PATIENTS WITH SYSTOLIC VERSUS DIASTOLIC DYSFUNCTION

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Objectives: In elderly patients Heart failure is one of the first causes of hospitalizations. Data about the characteristics of the oldest older patients are scarce. We try to evaluate clinical characteristics, and define the predictors of 1-year outcomes, defined as mortality and new hospitalizations, in patients older than 80 years with hospitalized heart failure in internal medicine and cardiology departments of our institution, asnd differences between those with systolic and those with dyastolic dysfunction,.

Material and method: Retrospective analysis of patients admitted to a Cardiology and Internal medicine departments of a University Teaching Hospital, during the first quarter of 2010. Sociodemographic data, Comorbidities (following PROFUND comorbidity Index), Cognitive status, Clinical echocardiographic and biochemical characteristics, treatments before and after admissions, and outcome (mortality and rehospitalizations one year after hospitalization) were reviewed from the electronic clinical records.

Results: Data from 157 subjects were collected (62.4% women) with a mean age of 86.8 ± 4.63 years (80-104 y). 12.4% were living in assisted homes. 37.6% were non dependent, and 19.7% had a mild dependency. Comorbidities were present as follows: 6.6% smokers, 84.1% hypertensive, 31.2% diabetics, 45.1% dyslipidemia, 47% atrial fibrillation, 41.1% chronic kidney disease, 12.1% cerebrovascular disease, 27.4% COPD, 53.2% previous Heart failure, and 25% ischemic cardiomyopathy. 47.5% had a Profund comorbidity index > 5. 31.8% had no echocardiography, 55.1% had systolic dysfunction and 44.9% had preserved ejection fraction. Patients with preserved ejection fraction were more likely to be women (75% vs 46% in systolic dysfunction p 0.003), to have lower serum creatinine (1.3 vs 1.6 mg/dL in systolic dysfunction; $p = 0.02$), and they were less likely to receive aldosterone antagonists (7% vs 19%; $p = 0.05$). There was a non-statistically significant trend towards more rehospitalizations in the systolic dysfunction group (68% vs 51%) and higher mortality in the diastolic dysfunction group (30% vs 21%).

Conclusions: In our study, oldest old heart failure patients are highly comorbid, and present a worse outcome. Patients with diastolic dysfunction were more often women and they had lower serum creatinine. Their prognosis, however, was as bad as that of patients with systolic dysfunction.

IC-59
ECHOCARDIOGRAPHY IN HEART FAILURE: ARE WE DOING WELL?

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Objectives: To identify patients diagnosed with heart failure in our department of Internal Medicine in Salamanca (and of those who were recently diagnosed) To observe how many of them had an echocardiogram during hospital stay.

Material and method: This is a retrospective review of patients with heart failure who has been admitted to our department (Internal Medicine in Universitary Hospital of Salamanca) for two years. All patients who discharge summary was the diagnosis of heart failure from January, 1st 2009 to December, 31th 2010 were eligible for inclusion in the study. Data obtained include if the diagnosis of heart failure was prior or new, if they had previous echocardiogram and which had been made during hospital stay.

Results: Table 1.

Discussion: All major heart failure guidelines recommend echocardiography as an essential first line investigation in the evaluation of suspected heart failure. Retrospective studies

Table 1 (IC-59). Results

	Total	Heart Failure	Heart Failure (new diagnosis)	Prior echocardiogram	Echocardiogram during hospital stay
2009	1051	108 (10.27%)	38 (35.18%)	35 (32.41%)	6 (5.55%)
2010	1273	137 (10.76%)	43 (31.39%)	50 (36.49%)	7 (5.11%)

suggest that patients with a clinical diagnosis of heart failure who have had an echocardiogram have a better outcome than those who have not, presumably due to more appropriate evidence based management. Echocardiography is uniquely suited to characterize anatomical and functional abnormalities in patients at risk of developing heart failure, suspected of having heart failure, and with symptomatic heart failure. Furthermore, echocardiography can provide prognostic information and assist in the management of patients with acute, chronic and end-stage of heart failure. Echocardiogram let us know the presence or absence of left ventricular systolic dysfunction, the presence and severity of valvular dysfunction and key haemodynamic features such as diastolic filling patterns and pulmonary artery pressure. In our series, we see that less than a half of the cases had echocardiograms done and most of them were present prior to admission. So, treatment is not guided as either the systolic or diastolic dysfunction and our patients are discharged from hospital without knowing whether there is structural heart disease.

Conclusions: 1. The number of echocardiograms performed in MI is too low. 2. We have to do an echocardiogram, during hospital stay, in all cases of suspected heart failure to confirm the clinical diagnosis, identify the etiology and guide further investigation and therapy.

IC-62
DESCRIPTIVE STUDY OF PHARMACOLOGICAL MANAGEMENT OF ATRIAL FIBRILLATION (AF) AND HEART FAILURE (HF) IN PATIENTS ADMITTED TO AN INTERNAL MEDICINE DEPARTMENT (IMD)

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Objectives: Describe the type of drugs used for heart rate control, the use of platelet antiaggregants and anticoagulants in HF patients admitted to an IMD.

Material and method: We reviewed the discharge summaries of patients admitted to the Heart Failure Unit in an Internal Medicine Department between the period of October 1, 2010 till March 31, 2011.

Results: We reviewed 214 discharge summaries, of those 119 patients presented AF (55% of patients) and the mean age was 81.3 years. Heart rate control was achieved using digoxin (54.62%), beta-blockers (45.38%), and non dihydropyridine calcium channel antagonists (16.81%). With respect to antithrombotic management, 47.06% used antiplatelet therapy, 65.54% anticoagulants, 17.24% used both, whilst 8.4% were not treated.

Discussion: AF is the most common cardiac arrhythmia in clinical practice. In our study, more than 50% of patients had AF, the high prevalence is due to the elderly age of patients admitted for HF. Heart rate control is one of the objectives to minimize symptoms and associated morbidity. We found digoxin to be the most commonly used drug, this may be explained by the relative contraindication of beta-blockers and calcium antagonists in heart failure patients. With respect to antithrombotic management despite being recommended in nearly all patients, only 65% were observed to be treated, probably due to factors such as elderly age, high degree of dependence, and the lack of studies in patients over 80 years.

Conclusions: 1. Age and heart failure are risk factors for atrial fibrillation. 2. Digoxin was the most commonly used drug for rate control.3. Only 65% of patients used anticoagulants.

IC-63
DIFFERENCES AMONG PATIENTS WITH ATRIAL FIBRILLATION (AF) ADMITTED FOR HEART FAILURE WITH OR WITHOUT ACCOMPANYING THYROID DISORDERS

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Objectives: To assess whether there are differences in patients with AF admitted with HF who had thyroid disorders or not.

Material and method: We reviewed the discharge summaries of patients admitted to a Heart Failure Unit in an Internal Medicine Department between the period of October 2010 till March 2011. We included patients who had AF, whom were then divided into two groups, those who had thyroid disorders and those that did not.

Results: We reviewed 214 discharge summaries, of those patients 119 were found to be in AF and the mean age was 81.3 years. There were 21 patients with thyroid disorders, of which 14 were women (67%), 18 hypertensive (85.7%), 5 diabetic (23.8%) and 7 had ischemic heart disease (33.3%). The other 98 patients without thyroid disorders, 45 were women (46%), 82 hypertensive (83.7%), 37 diabetic (37.8%) and 41 had ischemic heart disease (41%). We found no significant difference with respect to sex ($p = 0.08$), age ($p = 0.201$), diabetes mellitus ($p = 0.225$), hypertension ($p = 0.817$), and ischemic heart disease ($p = 0.471$).

Discussion: In our study most were elderly patients, with an average age over 80 years. Thyroid disorders are present in a high percentage of patients almost 20%. However we found no statistically significant differences with respect to demographic and clinical characteristics of patients. It seems appropriate to assess thyroid disorders in patients with AF and in particular patients admitted with HF.

Conclusions: 1. There is a high prevalence of AF in patients with HF. 2. There are no epidemiological differences between patients with or without thyroid disorders. 3. Due to the elderly age of patients, there were concomitant diseases also associated with age such as hypertension, DM or ischemic heart disease.

Table 1 (IC-64)

	Age/ women %	FC III-IV	PAPm	CI	PVR (WU)	PRAm	Sat O2 Ao/ Sat O2 AP	Survival 1, 3, 5 years
Eisenmenger (n = 228)	30 ± 18/68%	50%	70 ± 16	3.7 ± 1.3	14.5 ± 7.4	7.3 ± 4.6	86% ± 7 73% ± 7	92/86/83%
PH after defect closure (n = 69)	33 ± 14/70%	48%	59 ± 18§	2.9 ± 1.0*	11.7 ± 3.7*	10.8 ± 6.9*	94% ± 4 67% ± 12*	95/80/72%

IC-64
PULMONARY HYPERTENSION ASSOCIATED TO CONGENITAL HEART DISEASE WITH LEFT-TO-RIGHT SHUNT. IS IT ALWAYS BETTER THE DEFECT CLOSURE? PULMONARY HYPERTENSION REGISTRY (REHAP) DATA

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Objectives: Pulmonary arterial hypertension associated with congenital cardiopathy (PAH-CC) develops in a subgroup of patients (pts) with left-to-right shunt after a period of time that depends on the defect characteristics (size and localization). There are few clinical and prognostics data of the subgroup of pts in which PAH is diagnosed after the surgical or percutaneous defect closure. The Spanish registry of pulmonary hypertension (REHAP) was started in 2007 and take in all the PAH forms, including pts with (PAH-CC). Objective: to analyze the clinical and prognostics characteristics of patients with PAH-CC after the defect closure, without residual shunt, and compare them with the larger and better known group of patients with Eisenmenger syndrome.

Material and method: REHAP registry is based on voluntary reporting of adult (> 14y) pts. diagnosed of PAH from Jan/98 to Apr/12, which include PAH-CHD. Cardiac catheterism is mandatory to include pts except in the Eisenmenger Physiology. 38 centers reported cases but the 4 larger reference centers of PAH and CC included 75% of the pts that were stratified in two groups of the new classification: 1) Eisenmenger; 2) PAH after the defect closure, without residual shunt. Pts were censored to death/transplantation. Comparative analysis of demographic, clinical, hemodynamic and survival data between groups and Kaplan-Meier curves were done.

Results: 298 pts were included (18% the total REHAP cohort). Differences among the 2 groups are depicted in table 1.

Conclusions: 1) REHAP is the first HAP-CC registry in our country and is one of the largest in Europe. 2) The pts with corrected defect have less PAPm, but worse right ventricular function: less cardiac index and O2 saturation in pulmonary artery and higher medial right atrial pressure. 3) Survival is significantly better in Esienmenger group. 4) Very strict criteria should be established to decide defect closure in pts with left-to-right shunt because an incorrect decision can induce an extreme bad prognosis (p: 0.015).*

IC-66
ADDING DRONEDARONE + DABIGATRAN + DEFIBRILLATION, SAFELY AND EFFECTIVELY CARDIOVERTS ATRIAL FIBRILLATION AND MAINTAINS SINUS RHYTHM. DDD PROCEDURE

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Objectives: Dronedarone is the only anti arrhythmic decreasing deaths in Atrial Fibrillation (AF). Dabigatran is superior to warfarin in reducing strokes in AF. Leaving aside the outcomes of death and stroke, it is not known if the combined use of Dronedarone + Dabigatran + Defibrillation is safe and effective in promoting electrical cardioversion of AF and improving symptoms associated with AF.

Material and method: Retrospective analysis of prospectively collected data from a cohort of 33 consecutive patients with persistent AF. Patients were pretreated with Dronedarone + Dabigatran and electrically cardioverted. Primary outcome: change in the severity of symptoms attributable to AF as determined by the Canadian Cardiovascular Society Severity of AF Scale (CCS-SAF) and exercise capacity. Symptoms, 6 min walk test and LVEF were measured before and 6 months after cardioversion.

Results: The majority of patients (median age of 70) had comorbidities including hypertension, diabetes, and COPD. Cardioversion was not preferentially offered to younger patients with fewer comorbidities. Although we included elderly patients with multiple comorbidities requiring treatment with oral anticoagulants, antiarrhythmics, and other cardiovascular drugs, no major adverse effects, such as major bleeding, or proarrhythmia occurred. Minor bleeds, however, occurred in 2% of patients. Adequate rate control pending electrical cardioversion was achieved in the majority of patients. 14% of patients cardioverted to sinus rhythm (SR) while on treatment with dronedarone, without electrical cardioversion. Electrical cardioversion while on treatment with dronedarone had a 95% efficacy rate. Average follow-up was 6 months, with 80% of patients maintaining SR. Duration of persistent AF was associated with an increased risk of recurrent AF. We observed a significant improvement in symptom scores (particularly dyspnea and fatigue) in all patients that were previously severely symptomatic. Some patients who had "asymptomatic" AF felt much better after successful cardioversion. After restoration of SR, there was a significant improvement in the distance walked in 6 min. There was also an increase in LV Ejection Fraction in those patients with previous systolic dysfunction.

Discussion: This is the first clinical report of the combined effect of Dronedarone + Dabigatran + Defibrillation for conversion of AF demonstrating a significant symptom improvement without relevant adverse effects.

Conclusions: This investigation produced three novel findings concerning the combined use of Dronedarone, Dabigatran and Defibrillation: First, it is a logistically simple, safe and effective procedure to cardiovert persistent AF and maintain SR. Second, starting dronedarone while anticoagulation is achieved was useful for rate control previous to electrical cardioversion. Third, there was a clear clinical improvement in AF related symptoms more evident in dyspnea and fatigue amelioration, but also in palpitations perception. There was an increase in the distance

walked in a 6-minute walk test in more symptomatic patients. Given that better anticoagulants and antiarrthythmic drugs have became recently available we advocate to preserve sinus rhythm as a preference, and try cardioversion at least once when AF is first diagnosed.

IC-67
PREDICTORS OF HOSPITALIZATION DECISION AND MANAGEMENT OF ACUTE HEART FAILURE

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Objectives: To determine the prevalence of Acute Heart Failure (AHF) in the Emergency Department (ED) and investigate the presence of predictors of mortality, readmission and re-visits in these patients.

Material and method: Epidemiological observational retrospective by reviewing case histories. We selected all patients attending in the first quarter of 2011 with a diagnosis of AHF. Variables: Framingham criteria; destination (hospilatization or discharged home); systolic, diastolic and mean blood pressure; value of NT-proBNP in the emergency admission; value of troponin in emergency admission; sodium ion value of emergency admission; hospital stay; hospital mortality; readmission in patients discharged home from the ED (admission for the same reason within the following 72 hours); readmission in patients hospitalized (readmissions for the same reason during the first 30 days after discharge); visits to emergency services in all patients within 90 days after initial assistance.

Results: ED of University General Hospital Reina Sofía (Murcia) receives about 280 emergencies per day. The first quarter of 2011, we assisted 25,131 emergencies, 251 of which (1%) were diagnosed with acute heart failure. In our series, 205 (82.7%) patients fulfilled Framingham diagnostic criteria for the diagnosis of AHF (two major or one major and two minors). So, 38 (15.3%) patients who were diagnosed as AHF, failed to meet the Framingham criteria for diagnosis. There are 8 missing cases in which we could not perform the review. 61 (24.5%) patients were discharged home after an initial emergency healthcare (outpatient), 11 (4.43%) were transferred to Media Care Hospital, and 168 (67.74%) were hospitalized. Hospitalized patients stayed in hospital an average of 11.08 days, with a mortality of 7.9%. Of the patients hospitalized, 18 (10.11%) were readmitted for AHF within 30 days after discharge. Three of patients who were not hospitalized (4.92%) consulted again by AHF within the first 72 hours after discharge. Of all patients, both hospitalized and discharged home, 62 (25.94%) were attended again due to AHF within 90 days after discharge. Prognostic factors associated with mortality were hyponatremia (Na < 135 mEq/l) (OR 5, 53, 95%CI: 2.04-15, p = 0.001), diastolic blood pressure less than 68 (p = 0.045) and mean blood pressure less than 88 (p = 0.044). No statistically significant difference was observed for the variables studied in the number of readmissions, and readmissions reconsultations.

Conclusions: The prevalence of AHF in our study is low. we think that it could increase whether we select patients also include AHF as secondary diagnosis. One in four patients treated in ED will be discharged home, and less than 5% of them return to consult for the same reason within 72 hours. Hospitalized patients (70%, similar to other series) remain in the hospital an average of 11 days, with a mortality around 10% and a readmission rate of 10%. Of the total patients, 25% consulted again by AHF within the first 3 months.

IC-68
MONOCYTOSIS AND DESCOMPENSATED CHRONIC ISCHEMIC HEART FAILURE

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Objectives: Inflammation is strongly associated with cardiovascular disorders. Peripheral monocytosis is related to acute heart failure (HF) and left ventricular dysfunction after myocardial infarction. The objectives of this study were to establish the possible association between peripheral blood monocytosis and chronic HF due to ischemic etiology. Secondary objective was to evaluate possible differences between hospitalizations for ischemic and non ischemic heart failure.

Material and method: A transversal retrospective study attending to medical records of all patients (407) admitted in our centre for HF between December 2007 and October 2008 was retrospectively reviewed. Once exclusion criteria, patients with age < 18 or > 80 years, hematologic disorders, active or chronic infection or known terminal disease were excluded. Finally 89 patients were analized. Those who required more than one hospitalization only the first one was evaluated. Clinical information, blood tests, ejection fraction and requirement of new hospitalization, death for cardiovascular cause or death for any cause in the following 4 years) were recorded. Etiology and comparison between those with ischemic heart failure (IHF) and non ischemic (NIHF) cause was performed. Data were analysed using SPSS 20.0 for MAC.

Results: Patients hospitalized for HF were predominantly men (57.3%); 76.4% had hypertension (HT), 46.1% diabetes mellitus (DM), 16.9% smoke, 40.9% had anemia, 6.7% liver insufficiency and 22.7 renal insufficiency. On physical examination they presented 89 ± 29 beats/min, 140/76 ± 28/16 mmHg, 23 ± 5 resp/min and 91 ± 6% Hb oxygen saturation. According to the etiology 43% was ischemic, 39.5% valvular, 54.7% arrythmogenic, and 50.6% hypertrophic/hypertensive. Comparative results of IHF and NIHF showed difference between sex (males 55.1% vs 44.9 p < 0.05). Prevalence of HT was higher in IHF (86.5% vs 67.3% p 0.041), but not differences were found in DM (54.1% vs 40.8%), smoke (24.3% vs 12.2%) anemia (38.9%vs 42.9%), liver insufficiency (5.4% vs 6.1%), renal insufficiency (27% vs 20.4%), or exploration data (88 ± 22 vs 88 ± 29 beats/min, 24 ± 5 vs 23 ± 5, 141/76 ± 28/16 vs 140/74 ± 28/15 mmHg or 92 ± 5 vs 91 ± 7) p NS respectively for all of them. On laboratory test, both acid uric and GOT were significant higher in IHF (8.08 ± 1.98 vs 6.93 ± 2.46 mg/dl and 52.88 ± 57.79 vs 27.72 ± 24.71 U/I, p = 0.038 and p = 0.012 respectively). The rest of laboratory test (hemoglobin, lymphocytes, total cholesterol, triglycerides, albumin, bilirrubin, urea, creatinine, GPT and LDH showed no significant differences). Neither comparison of peripheral monocyte account between IHF with NIHF nor comparison between IHF plus any other etiology with NIHF showed differences (761 ± 295 vs 785 ± 289 cell/mm^3 and 729.40 ± 304.37 vs 785.63 ± 289.33 cell/mm^3 P NS in both cases). IHF showed too significant lower ejection fraction (59 ± 14% vs 49 ± 14%, p = 0.012), and was correlated with higher death for cardiovascular causes (24.3% vs 8.2% p = 0.038) with no differences in death for any cause (21.6% vs 22.4% p NS). They were no difference in readmission related to HF between IHF and NIHF (21.6% vs 12.2% p NS).

Conclusions: Patients hospitalized for ischemic heart failure has lower ejection fraction than to hose with non ischemic heart failure. Ischemic heart failure is correlated with higher incidence cardiovascular death. Peripheral monocytosis is not related to chronic heart failure due to ischemic etiology in our series.

IC-69
CHARACTERIZATION OF PATIENTS PRONE TO READMISSION TO HOSPITAL DUE TO HEART FAILURE

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Objectives: Heart Failure (HF) represents almost 25% of all cause of mortality and hospitalizations in Spain. Decompensated patients who require admision to Internal Medicine Services are frequently related to any infectious disease. The objective of our series was to characterize patients ingressed in our hospital with HF diagnosis in order to assess possible differences between patients hospitalized at least one time previously (H) and those with no history of previous hospitalization (NH). The finally was to identify patients prone to hospital readmission and think about possible prevention measures.

Material and method: Descriptive transversal study of patients admitted in our hospital with HF between December 2007 and October 2008 were retrospectively reviewed. Medical records of 407 patients were evaluated. Exclusion criteria were age younger than 18 and older than 80 years, active infection or known terminal disease. Finally 89 patients were analized. Demographic (age, gender), clinical (risk factors, physical examination, laboratory test, ejection fraction), and death due to cardiovascular o due to any cause in the following 4 years were collected. Data were compared between HF previously hospitalized at least one time and no previous HF hospitalization using SPSS 20.0 for MAC.

Results: Patients admitted for HF were predominantly men 57.3%; 76.4% had hypertension (HT), 46.1% diabetes mellitus (DM), 16.9% smoke, 40.9% had anemia, 6.7% liver insufficiency and 22.7 renal insufficiency. On exploration heart rate was 89 ± 29 beats/min, 140/76 ± 28/16 mmHg, 23 ± 5 resp/min and 91 ± 6% Hb oxygen saturation. According to the etiology, 54.7% was arrythmogenic, 50.6% hypertrophic/hypertensive, 43% ischemic and 39.5% valvular. Comparing results between H and NH there were no differences between gender (males 58.5% vs 56.2%), HT (82.9% vs 70.8%), (DM 53.7% vs 39.6%) smoke (9.8% vs 22.9%) anemia (45% vs 37.5%), renal insufficiency (30% vs 16.7%) p NS in all of them. Liver disease was more frequent in patients previously hospitalized (12.2 vs 2.1) p = 0.058. Attending to the etiology there were no difference valvular (41% vs 38.3%), arrythmogenic (53, 8% vs 55.3%, hypertrophic/hypertensive (48.7%vs 52.2%), diastolic dysfunction (10.3% vs 10.9%). Anyway ischemic HF showed a tendency to be significant higher in those HF with previous hospitalizations (53.8% vs 34%) p = 0.06. There were no difference in examination: 94.6 ± 33.51 vs 83.51 ± 22.73 beats/min, 23.63 ± 4.52 vs 23.23 ± 5.22, 145/78 ± 33/16 vs 135/74 ± 21/16 mmHg, and 92.8 ± 4.6 vs 90.8 ± 7.2% on pulsioximetry, pNS in al of them). On laboratory test only urea was higher in previously hospitalized (72.74 ± 51.89 vs 50.70 ± 26.60 mg/dl p = 0.014). No differences were shown respect to the rest of biochemical parameters evaluated (GOT, GPT, total bilirrubin, LDH, creatinin, cholesterol, tryglicerids, albumin and acid uric, p NS). On hemogram, hemoglobin, lymphocytes, and monocytes levels were significant lower in patients previously hospitalized for HF (11.61 ± 2.04 vs 12.51 ± 2, 12, 1353 ± 690.27 vs 1730.11 ± 740.65 and 684.87 ± 299.02 vs 830.38 ± 272.95 p = 0.045, p = 0.016 and p = 0.019 respectively). No differences on ejection fraction (53.72 ± 16.92% vs 54.82 ± 13.73%) were observed. Cardiovascular mortality was higher in those HF with previous hospitalizations (27.5% vs 6.2% p = 0.007), but not mortallity for any cause (30% vs 16.7%) p NS.

Conclusions: According to our series, no data on clinical information or physical examination can differentiate patients with HF who required previously hospitalization. Some haemathologic manifestations (lower hemoglobin, monocytes and lymphocytes) could mark patients who required hospitalizations before. Those patients present, as expected higher cardiovascular mortality.

IC-70
HEART FAILURE WITH PRESERVED EJECTION FRACTION, ARE THERE DIFFERENCES IN TERMS OF SERVICE INCOME?

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Objectives: To analyze the differences among patients admitted for the first time Heart Failure with Preserved Ejection Fraction in terms of their stay in Internal Medicine and Cardiology.

Material and method: The study includes patients in first admission with heart failure (HF) with left ventricle fraction of ejection (LVEF) > 50% in the period from 1st January, 1997 till the 31st of December 31, 2001. We analyze two groups, depending on the income in Internal Medicine (IM) or Cardiology (C), with special attention to demographic variables, comorbidity, therapeutic and, finally, prognostic. The maximum follow-up time was 14 years.

Results: A total of 231 patients join the hospital, but only 130 do so in the cardiology department (56.3%). This average of age was higher in patients admitted to Internal Medicine (71.9 vs 67, p <0.001). In both groups, the amount of women that join were similar, 58%. Among the comorbidities, hypertension was more prevalent in those admitted to IM (72.3% vs 57.7%, p = 0.02), as well as COPD (16.8% vs 6.2%, p = 0.01) and kidney failure (56.4% vs 40.8%, p = 0.02). There were no differences among groups in the prevalence of diabetes, dyslipidemia, ischemic heart disease, cerebrovascular disease, atrial fibrillation and stroke. Decompensation with respiratory infection was more frequent in IM (28.7% vs 10.8%, p < 0.001), while in Cardiology, it was ischemic heart disease (8.5% vs 2%, p = 0.04) and rapid atrial fibrillation (29.2% vs 13.9%, p = 0,007). In treatment, there were no differences in the use of diuretics, antiplatelet therapy, ACE inhibitors, ARBs, digoxin, calcium channel blockers and statins among groups. It was a larger proportion of patients receiving beta-blockers in Cardiology (54.6% vs 17.8%, p < 0.001). During the follow-up (average 81.3 months (95% CI 74.8-87.8)) patients admitted in IM readmitted 2.7 times, compared to 2.08 in Cardiology, no significant differences. At the end of follow-up, mortality was higher in IM (82.2% vs 56.2%, p < 0.001). Table 1 shows the variables included in the multivariate analysis adjusted by age and gender for the total sample.

Conclusions: Patients hospitalized for HF with preserved LVEF in IM are older, with higher prevalence of hypertension and renal failure compared to those who enter Cardiology. Revenue in Cardiology in a greater proportion of decompensation caused by atrial fibrillation and ischemic heart disease. On the other hand, Respiratory infection is the main factor in IM. The main difference in treatment is the increased use of beta-blockers in Cardiology. The long-term mortality is lower in patients with first admission in Cardiology.

Table 1 (IC-70). Variables associated with mortality in multivariate analysis

	Odds Ratio	95%CI	p
Age	1.01	1.00-1.03	0.03
Cardiology Admission	0.66	0.46-0.93	0.01
Diabetes	1.52	1.09-2.12	0.01
Kidney Failure	1.57	1.10-2.24	0.01
Treatment with beta-blockers	0.57	0.39-0.82	0.003
Treatment with statins	0.49	0.31-0.78	0.003

IC-73
MULTIDISCIPLINARY APPROACH OF THE CARDIORENAL SYNDROME

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Objectives: The term cardiorenal syndrome (CRS) has been applied to these interactions, but the definition and classification have not been clear. To include the vast array of interrelated derangements, and to stress the bidirectional nature of heart-kidney interactions, we present a new classification of the CRS with 5 subtypes that reflect the pathophysiology, the time-frame, and the nature of concomitant cardiac and renal dysfunction. Our purpose was to study the existence of CRS in a cohort of patients admitted for heart failure in a general hospital.

Material and method: Retrospective study in 50 patients with heart failure. The sample calculation was performed on a universe of 983 discharged patients from the Internal Medicine department of Torrecárdenas hospital from January 2011 until April 2011. We analyzed clinical and epidemiological variables (eg age, sex, cardiovascular risk factors and toxic habits). The data were analyzed by using SPSS 18.0 statistical package.

Results: The following variables were studied: age 64 ± 5 years, sex 32 males/28 females (66%). We study the comorbidity: 48% of patients with diabetes mellitus, 59% arterial hypertension, 45% dyslipidemia and 37% were smokers. 42% of patients had Cardiorenal syndrome type 1 (acute CRS is characterized by a rapid worsening of cardiac function, leading to acute kidney injury). Of these patients, 15% required renal replacement therapy. 68% of patients had Cardiorenal syndrome type 2 (Type 2 CRS is characterized by chronic abnormalities in cardiac function causing progressive cronic kidney disease). Analyzing therapeutic antihypertension families: 80% ACE inhibitors, 73% angiotensin 2 receptor antagonists and 69% diuretics. 9% had heart failure refractory to treatment with CKD (stage 3) to require weekly ultrafiltration techniques with good results.

Conclusions: A reduced glomerular filtration rate (GFR) is generally associated with a worse prognosis in patients with heart failure (HF), whether present at baseline or developing during therapy for HF. In our study we found high prevalence of CRS in patients hospitalized for heart failure. The management should be based on the individualization of treatment and the multidisciplinary approach.

IC-74
PROGNOSTIC FACTORS AND VERY LONG-TERM SURVIVAL AFTER INITIAL DIAGNOSIS OF HEART FAILURE

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Objectives: To assess very long-term mortality and prognostic factors in patients with heart failure with preserved ejection fraction (ICFEP) against heart failure with systolic dysfunction (ICDS).

Material and method: Retrospective cohort study of patients with first admission for heart failure during the period between 01.01.1997 and 31.12.2001, classified according to ejection fraction (LVEF) increased (ICFEP) or lower (ICDS) of 50%, followed until December 31, 2011.

Results: On a total of 400 incident cases of heart failure, 231 patients (57.7%) had ICFEP. They were older (69.1 vs 66.3 years, $p < 0.001$), predominantly female (58.5% vs 30.8%, $p < 0.001$), history of hypertension (64.1% vs46.7%, $p < 0.001$) and atrial fibrillation (22.9% vs 14.8%, $p = 0.03$) for the group with ICDS. Mean follow-up was 76.8 months (95%CI 71.9 to 81.7), with a maximum of 168 months. At 14 years, mortality was greater in the ICDS (78.1% vs 67.5%, $p = 0.02$). After performing a multivariate analysis the variables associated with mortality in ICFEP included age, diabetes mellitus and chronic renal failure. Treatment with statins and β-blockers was associated with better prognosis. Among patients with ICDS predictors of mortality were age and presence of diabetes mellitus, while treatment with beta-blockers improved survival.

Conclusions: A high proportion of patients with heart failure have ICFEP. Mortality in these patients over the long term is very high, although somewhat lower in the ICFEP regarding the ICDS. Age, diabetes mellitus and chronic renal failure is associated with poor prognosis in patients with LVEF > 50%, while the use of statins improves it. In systolic dysfunction are age and the presence of diabetes-related variables over the very long term prognosis. B-blockers improved survival in both groups.

IC-75
CARDIOVASCULAR RISK FACTORS IN PATIENTS ADMITTED FOR HEART FAILURE

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Objectives: To analyze the differences between the inpatients with congestive heart failure (CHF) in our hospital and their cardiovascular risk factors (CVRF).

Material and method: Retrospective descriptive study that included patients admitted to our hospital for exacerbation of heart failure from January to February 2010. Different factors were included as personal history and echocardiogram results (when it was performed during admission or within the last six months). Analysis with PASW statistic 18 (SPSS inc.).

Results: 49 patients were included in the study. The specialty in charge was Internal Medicine in 40 patients (80%), Cardiology in 3 patients (6%), Neumology in 6 patients (12%) and Intensive Care Unit (ICU) in 1 patient (2%). The mean age was 80.6 years and the median stay was 12.5 days. Regarding to the personal history, the most frequent CVRF was the arterial hypertension in 32 patients (64%) followed by diabetes mellitus type 2 in 21 patients (42%), dyslipidemia in 14 patients (28%), smokers in 4 patients (8%) and ex-smokers in 4 patients (8%). Besides, there were chronic renal disease in 20 cases (41.5%) and chronic obstructive pulmonary disease in 15 (31%). The most usual treatment were the angiotensin-converting enzyme inhibitors (ACEI) in 69% of the patients, followed by digoxin in 42.9%, beta-blockers in 24.4%, spironolactone in 21.4%, amiodarone in 7.1%, ACEI + angiotensin II receptor blockers in 4.9%, digoxin + beta-blockers in 4.8% and eplerenone in 2.4%. Echocardiography was performed in 67.3% of patients with preserved left ventricular ejection fraction (LVEF) in 22 inpatients (66.7%) and decreased LVEF in 11 cases. When we divided the patients into two groups in accordance with the LVEF, the presence of CVRF and the treatment are similar between both groups with no statistically significant difference. However, the inpatients with decreased LVEF had a longer staying with statistically significant difference ($p = 0.01$).

Discussion: It is remarkable the small percentage of former smokers and current smokers, a percentage that may be influenced by the number of old women. Hypertension appears to be the most common risk factor.

Conclusions: In our study we found no differences between the patients with preserved and decreased LVEF except for the stay at the hospital.

Table 1 (IC-76). Baseline characteristics

Hypertension	92% (n = 46)	Coronary heart disease	18% (n = 9)
Chronic kidney disease	44% (n = 22)	Creatinine	1.20 ± 0.38
Diabetes	52% (n = 26)	Renal clearance (MDRD)	54.11 ± 20.56
Atrial fibrillation	60% (n = 30)	Potassium	3.96 ± 0.35

IC-76
SAFETY AND TOLERABILITY OF SPIRONOLACTONE IN ELDERLY PATIENTS WITH HEART FAILURE AND PRESERVED EJECTION FRACTION

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Objectives: To evaluate the safety and tolerability of spironolactone in patients with heart failure and preserved ejection fraction.

Material and method: We included 50 consecutive patients evaluated in our clinic who met criteria for heart failure with preserved ejection fraction (HFPEF) (using a diagnostic protocol based on clinical and echocardiographic parameters and brain natriuretic peptide) and who were being treated with spironolactone before December 2009. Patients with severe or moderate to severe valvular disease were excluded. We analyze the number of hospital admissions, the emergency room visits, the number of deaths and the need to discontinue the drug or reducing the dose until December 2011. We classify the causes of suspension into 4 groups: 1) Kidney failure, 2) Hyperkalemia, 3) Gynecomastia/Breast Pain, 4) Other/Unknown; and the causes of dose reduction in 3 groups: 1) Kidney failure, 2) Hyperkalemia, 3) Other. Emergency room visits and hospital admissions were divided into those that occurred due to renal failure and/or hyperkalemia, heart failure and other causes. We used the chi square test for comparing proportions. Continuous variables are expressed as mean ± standard deviation and qualitative variables as percentage.

Results: The mean age of patients was 81.4 years. 66% of patients were women. The rest of the baseline characteristics are shown in Table 1. 30% were on ACEI, 34% on ARBs, and 98% on loop diuretics treatment. The mean duration of treatment with spironolactone was 25.40 ± 16.70 months. 42% (n = 21) of patients required discontinuation of treatment with spironolactone, 11 of them because of worsening renal function, 4 by hyperkalemia and 6 by unknown cause. However, in half of the patients requiring discontinuation, the drug could be introduced again (n = 10). Moreover, 14% (n = 7) of cases required a dose reduction, without having to stop the treatment, due to high levels of potassium or due to renal impairment. The need to discontinue the drug was significantly higher among patients with chronic kidney disease (p = 0.03). There were 80 hospital admissions, 39 due to heart failure, 4 secondary to hyperkalemia and 37 due to other causes. There were 152 emergency room visits, 40 caused by heart failure, 4 due to hyperkalemia/renal impairment and 108 related to other causes. During the monitoring period, 17 patients died (34%). No death was attributed to hyperkalemia.

Discussion: The benefits of aldosterone antagonists in patients with systolic dysfunction have been widely observed. However, it could also be useful as diuretic drug in patients with HFPEF. This study, based on a cohort of elderly patients with very close monitoring, suggests that the use of spironolactone in elderly is safe even in those who have some degree of renal impairment and in those who are treated with ACE inhibitors or ARBs.

Conclusions: The use of spironolactone in elderly people with HFPEF-in a closely monitored settings- is safe and well tolerated.

IC-78
IMPROVED SURVIVAL OF PATIENTS WITH HEART FAILURE TREATED WITH BETA BLOCKERS, WHEN THE BENEFIT BEGINS?

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Objectives: To assess the prognostic benefit of beta-blockers in heart failure (HF) after the initial diagnosis, analyzing their benefit on prognosis and the time in which it appears.

Material and method: Retrospective cohort study of patients with first admission for heart failure during the period between 01.01.1997 and 31.12.2001, followed until December 31, 2011. Analysis of epidemiological variables, comorbidity, treatment and prognosis. Subsequently, Kaplan-Meier analysis of the impact on survival of beta-blockers during follow-up period.

Results: A total of 400 incident cases of heart failure were included, with a mean age of 67.9 years (95%CI 66.8 to 69.1), female gender in 46.8%. Highlighted in the personal history: hypertension in 56.8%, diabetes mellitus in 40.5%, dyslipidemia in 17.8%, ischemic heart disease in 23.3% and renal failure in 46.3%. 43.5% of patients had atrial fibrillation. The ejection fraction (LVEF) was 52% (95%CI 50-54), with 42.3% of patients with left ventricular systolic dysfunction. Regarding treatment, antiplatelets in 59.5%, loop diuretics in 95.8%, potassium-sparing, 45.3% in 86% ACE inhibitors, ARBs in 22.5%, calcium-antagonist in 33.3%, 49.3% beta blockers, digital accounted for 48.3% and finally 22.5% statins. After performing a multivariate analysis adjusted for age and gender, variables related with mortality were age, diabetes mellitus, lower creatinine clearance and a lower LVEF. However, the use of b-blockers improved the prognosis of patients, OR 0.71 (95%CI 0.54-0.91). The Kaplan-Meier analysis showed a decrease in mortality in patients treated with beta-blockers from the first year of treatment (log rank test: 0.013), maintaining this protective effect for a maximum follow-up period of 14 years and average of 76.8 months (95%CI 71.9 to 81.7).

Conclusions: In patients with heart failure at initial diagnosis the use of beta blockers provides survival benefit early, from 12 months of treatment. This survival benefit is maintained during evolution of heart failure.

IC-80
ATRIAL FIBRILLATION IN PRESERVED EJECTION FRACTION HEART FAILURE PATIENTS, A FREQUENT ASSOCIATION, WITH A WORSE PROGNOSIS?

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Objectives: To analise the heart failure long-term prognosis con with preserved ejection fraction (ICFEP) depending on the presence of atrial fibrillation (AF).

Material and method: Retrospective cohort study of patients with first admission for heart failure with LVEF higher or same as 50%, between January 1st 1997 and December 31st 2001. Demographic variants, comorbidity, treatment and long-term prognosis with a maximum period of 14 months follow-up are analised.

Results: During the time of the study, 231 patients were checked in, out of which a 51.9% showed atrial fibrillation (permanent in 94.2% of the cases). Within the overall group of heart failure with LVEF preserved patients, the amount of preserved atrial fibrillation was higher than diabetes mellitus (41.6%), ischemic heart disease (17.7%), renal failure (47.6%). In the analysis per group (AF vs sinus rhythm), there were no differences regarding age (68.6 vs 69.7, p = 0.49) or gender (60% vs 56.8% feminine, p = 0.68). The dyslipidemia was less frequent in the AF group (11.7% vs 28.8%, p = 0.02), as in the case of the ischemic heart disease (10.8% vs 25.2%, p = 0.006). There are no records of differences among groups in the hypertension, diabetes, renal failure and COPD prognostic. The valvular dysfunction was more frequent in AF patients (43.3% vs 31.5%, p = 0.07). Chart 1 shows the main differences in the treatment administered. Finally, there were no differences in the long-term prognosis among the group (a maximum of 14 months follow-up, average 76.8 months, 95%CI: 71.94-81.77), with a mortality rate of 63.3% in the AF group, compared to the 72.1% in sinus rhythm, p = 0.16.

Conclusions: Heart failure with LVEF preserved and atrial fibrillation patients show a similar clinical profile to those in sinus rhythm. Atrial fibrillation does not affect the long-term prognostic of these patients.

Table 1 (IC-80). Difference among groups in the treatment

	Atrial fibrillation Group	Sinus rhythm Group	p
Loop diuretics	97.5%	91.9%	0.07
ACE inhibitors	82.5%	79.3%	0.61
Beta-blockers	33.1%	44.1%	0.10
Digital	78.3%	18%	0.001
Anticoagulants (acenocumarol)	77.5%	23.5%	0.001
Antiplatelets	41.7%	70.3%	0.001
Calcium-antagonist	36.7%	49.5%	0.06

Inflammation and autoimmune diseases

IF-1
DESCRIPTIVE ANALYSIS OF A COHORT OF 140 PATIENTS WITH CHRONIC FATIGUE/CF IN THE HOSPITABLE SPECIALIZED UNIT OF THE CAMP OF TARRAGONA - HSUCFCT

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Objectives: The HSUCFCT is an initiative based on the creation and promotion of unit of managing interdiscipline of patients with Chronic Fatigue. We describe our experience from June 2010 untill May 2012.

Material and method: A descriptive observational study including patients who have been attended for asthenia in the HSUCFCT. We were collected epidemiological and clinical characteristics as well as accompanying disorders and associated comorbidity phenomena (ADACP). It has been realized the statistical descriptive and comparative analysis by means of the chi-squared test with the program SPSSPC v 11.5 for Windows.

Results: Of the total of 140 patients: 83.5% were women (117/23) and the mean age of onset of symptoms was 42.5 years (min 9/max 76). 54.3% (76 p) are patients with a specialized job. 38.5% (54 p) were on sick leave at the time of the visit, 32.8% (46 p) were still working and 28.5% (40 p) with disability status. As a possible precipitating factor 27.8% include stressful life event, 14.2% infectious cause, 8.5% toxic exposure and 7.2% physical trauma. 42.8% (60 p) do not remember any factor. The onset was insidious in 73.6% (103 p) and suddenly in 26.4% (37 p). The evolution course has been continuous in 74.3% (104 p) and in outbreaks in 25.7% (36 p). 100% of the patients complain of musculoskeletal symptoms, recurrent headache in 82.8%, sleep disruption in 80.7%, cognitive symptoms in 80% and autonomic symptoms in 53.6%. As ADACP: 82% of patients have Sicca syndrome, fibromyalgia in 55%, dyslipidaemia in 39.3%, rhinosinusitis in 37.2%, dysthymia in 22.2%, irritable colon in 19.3%, multiple chemical sensitivity in 18.5%, autoimmune tiroiditis in 15.7%, lactose intolerance in 13.6%, urinary incontinence in 11.4%, sleep snoring in 8.6%, myofascial syndrome in 6.4%, nickel allergy in 6.4%, restless legs syndrome in 5.7%, coeliac disease in 3.6%, bladder hyperactive in 2.8%, interstitial cystitis in 2.2%, plantar fasciitis in 2.2% and Raynaud's phenomenon in 2.2%. 81 patients (57.8%) were diagnosed as having chronic fatigue syndrome-myalgic encephalomyelitis CFS-ME (6 patients with a family history) according to the Fukuda´s criteria 1994. However 37 patients (26.4%) were diagnosed of Secundary Chronic Fatigue while 11 patients (7.8%) were received the diagnosis of idiopatic chronic fatigue. 11 other patients (7.8%) were considered as having fibromyalgia without a clear component of CF. Respect to patients diagnosed of secundary chronic fatigue: 24.3% (9 p) are associated to incomplete Sjögren syndrome according to the American European Consensus 2002, 18.9% (7 p) to psychiatric disorder, 13.5% (5 p) to statin-induced myopathy, 13.5% (5 p) to rheumatic polymyalgia, 8.1% (3 p) to liver cirrhosis, 8.1% (3 p) to pituitary microadenoma, 5.4% (2 p) to sleep apnea syndrome, 5.4% (2 p) to ischemic cardiopathy and 2.7% (1 p) to Guillain-Barré syndrome. 59 patients (42.1%) were evaluated for cognitive behavioral therapy and exercise program regulated. 77 patients (55%) were received antidepressants, 38 p (27.1%) NSAIDS, 18 p (12.8%) Prednisone, 12 p (8.5%) antioxidants, 6 p (4.2%) Hydroxychloroquine, 1 p anti-TNF and other 1 p intravenous immunoglobulins.

Discussion: CFS-ME affects mainly young women and determines functional limitation. It is difficult to reach an accurate diagnosis. Some patients diagnosed with CFS-ME have symptoms commonly observed in primary Sjögren's syndrome, leading to speculation that the two disorders share common pathophysiological features.

Conclusions: The HSUCFCT is a model of management centered on the integral valuation of all the pathological processes and diagnostic/therapeutic procedures.

IF-2
EXPERIENCE IN CRYOGLOBULINEMIA AT FUENLABRADA UNIVERSITY HOSPITAL

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Objectives: Cryoglobulinemia is a rare disease, with an estimated prevalence of 1 per 100,000. More than 90% of the cases have a

known predisposing condition. However, there is still areas of uncertainity about how to treat this disease (duration and combination of immunosupresors, biologic therapies…). Our objective is to analyze all cases of cryoglobulinemia diagnosed in the Internal Medicine Service of Fuenlabrada University Hospital (FUH), describing predisposing conditions, clinical course, complications and treatments received.

Material and method: Retrospective descriptive study of cryoglobulinemia cases diagnosed in the Internal Medicine Service of FUH, since its opening in 2004.

Results: During this period we detected 5 cases of cryoglobulinemia: two type I and three type II. Most were healthy woman (4/5) of mean age at diagnosis (range 51-63 years), without known viral infection or cancer (there was only one case of breast cancer treated years earlier with no evidence of disease). The most common finding was palpable purpura in lower extremities (4/5). Two cases had also sensory-motor polyneuropathy. None of the patients had renal failure, although we detected one case of hematuria: renal biopsy was impossible due to coagulopathy. There were no cases of alveolar hemorrhage or CNS involvement. We detected one case of HCV infection (genotype 1) and other of HBV. It was common to find low C4 (4/5) with standard C3. The autoimmunity study performed in all patients revealed three cases of positive ANA (high title but intermittent in time) without diagnosis criteria for SLE, one of them also had antiRo and anticardiolipins antibodies but not diagnosis criteria for Sjögren or antiphospholipid syndrome. The skin biopsy performed in four patients showed leukocitoclastic vasculitis in all of them. Only one patient had endoneural vasculitis. Four patients were treated: one of them only with oral steroids for a month, the remaining with bolus of methylprednisolone followed by oral steroids (between 1-1.5mg/kg/d) for a variable time (between 5 and 16 months). The most refractory was infected with HCV: she also received 14 sessions of plasmapheresis, and because of persistence of outbreaks and poor tolerance to the treatment it was necessary to use azathioprine and methotrexate. She received no antiviral treatment due to comorbidity, high viral load, liver fibrosis and type of cryoglobulinemia (I) not typically associated with HCV infection (accessed with the Digestive Service). However, the patient infected with HBV received antiviral treatment with a significant clinical improvement. Clinical remission and negative cryoglobulins were reached in all cases. The mean follow-up time was 11.6 months. There were no deaths in our series.

Conclusions: Despite being a rare disease we found many cases of cryoglobulinemia in FUH. Most occur in middle-aged women and palpable purpura is the most common finding. Only two cases in our study had a predisposing condition (HCV and HBV infection). It is usual to find low C4 with normal C3. There is limited evidence about the treatment of cryoglobulinemia; in many cases the strategies are based on personal experience and expert opinions. There is also no data on maintenance of immunosupressive agents. The only case of viral infection that was treated in our series had a favorable outcome. Rituximab was not used in any case.

IF-4
ANTICOAGULATION TREATMENT WITHDRAWAL IN PATIENTS WITH PRIMARY APS WHEN APL BECAME NEGATIVE

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Objectives: Recommended treatment for patients with primary antiphospholipid syndrome (APS) after a thrombotic event is long-term anticoagulation. Few patients with APS and previously positive antiphospholipid antibodies (aPL) may become negative over time. It is still not exactly known how to treat these patients whose aPL become negative. We described a group of APS patients with negative aPL during follow-up after anticoagulation therapy was discontinued.

Material and method: Eleven patients with primary APS and previously positive aPL that became negative during follow-up were included. Anticoagulation or antiaggregation therapy was discontinued when APA became persistent negative during follow-up.

Results: Ten (90%) patients were female. All patients except one (IgG anticardiolipin antibodies [aCL] below 40 GPL) fulfilled classification criteria for APS. Seven (64%) patients had deep venous thrombosis and 4 (40%) had recurrent miscarriage. Lupus anticoagulant (LAC) was the aPL most frequent (82%). Two patients had both LAC and IgG aCL. As a whole group, no new thrombotic episode was observed after a median follow-up period of 20 months. In those patients with previous thrombosis no new thrombotic episode was observed after a median follow-up period of 18 months.

Conclusions: Anticoagulation could be discontinued in those patients with primary APS and persistent negative APA. However, more extensive studies are required to confirm these results.

IF-6
RISK FACTOR IN COLON CROHN'S DISEASE SURGERY: SMOKING HABIT

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Objectives: To analyze the tobacco influence in bowel surgery rate of CD patients. A secondary objective was to investigate whether smoking will affect surgery rates, depending on the location.

Material and method: Medical records of CD patients diagnosed at a single center in Madrid, Spain, between 2005 and 2009, were retrospectively reviewed. The primary outcome was the occurrence of non-perianal CD-related surgery, defined as the need for bowel resection or drainage of non-perianal abscesses. Smokers were compared with nonsmokers at the time of diagnosis. Smokers included smokers at the time of diagnosis or less than 5 years without smoking at the time of diagnosis. Multivariate analysis (Cox proportional hazard model) includedage at diagnosis, sex, location, behavior, perianal disease and treatment prior to surgery (immunosuppressive, anti-TNF) as covariates.

Results: We included 400 patients (49% women) with mean follow-up of 12.0 ± 8.7 years, and average age at diagnosis of 31.9 ± 14.6 years. 40% of patients were smokers at diagnosis, and 29% had perianal involvement. Behavior: inflammatory (62%), stricturing (17%) and penetrating (21%). Location: ileum (37%), colon (17%), ileocolonic (30%) and upper gastrointestinal tract (18%). Thirty seven percent of patients required surgery, with median time from diagnosis to surgery of 1 year [range 0-29]. 41% had immunosuppressive and/or biological therapy, before surgery or until the end of follow-up. Tobacco was not associated with an increased need for surgery in the overall population or in the subgroup of terminal ileum CD. However, in the group with isolated involvement of the colon, smoking was associated with the need for surgery [HR 20.3 (95%CI 2.2 to 183.8) p = 0.007].

Conclusions: The consumption of tobacco at the time of diagnosis seems to be associated with an increased likelihood of needing surgery in colonic CD. Consumption of tobacco was not associated with higher surgery rates in CD when other intestinal locations are affected.

IF-7
AUTOIMMUNE INFLAMMATORY MYOPATHIES: A DESCRIPTIVE STUDY OF CASES IN A TERTIARY HOSPITAL

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Objectives: To compare the epidemiological, clinical, prognostic, diagnostic and therapeutic management of patients diagnosed with autoimmune inflammatory myopathy in our hospital with that described in the literature.

Material and method: A cross-sectional study recruiting all patients who had been diagnosed with autoimmune inflammatory myopathy, polymyositis (PM) and dermatomyositis (DM) and coded as ICD-9 in hospital discharge reports, covering the period from January 1st 1995 to May 31st, 2011 was carried out. Epidemiological, clinical, major additional diagnostic tests, initial treatment and the evolution of the disease to date were gathered. These data were compared with that available in the literature.

Results: In total, 30 patients were included; 17 were classified as DM and 13 PM. There was a male predominance and a mean age of 56 years, with a range from 16 to 92 years. The mean age at diagnosis of DM was 48 years, while in PM was 66 years. 17 cases were classified as idiopathic, 5 associated with autoimmune disease and 10 associated with malignancy, being the most frequent lung and colon adenocarcinoma, with 4 and 3 cases respectively. There were 2 cases associated both with autoimmune disease and neoplasia. The mean age of patients with associated neoplasia was 63.1 years. In 3 patients the disease was disseminated at diagnosis. The initial symptom was muscle weakness in most patients (18) and appeared over time in 29 of them, accompanied by myalgia in 17 cases. Cutaneous manifestations appeared in all cases of DM, being the initial symptom in 13 patients. 13 patients presented constitutional syndrome and 6 patients had interstitial lung disease. The creatine phosphokinase (CPK) was elevated in 26 patients, being higher in patients with cancer (6889 IU/L versus 3485 IU/L). 19 of 27 patients had positive ANA and 7 of the 19 specific antibodies of inflammatory myopathies. All patients were treated with glucocorticoids, for periods from 8 months to 12 years. The initial response was good in 20 patients, poor in 7 patients and non-assessable in the remaining 3 patients. Immunosuppressive treatment was required in 21 patients, azathioprine and methotrexate being the most used. Specific treatment of neoplasia, when associated with the disease did not improve the outcome in any of the patients. In these patients, the clinical outcome of the myopathy was similar to that without neoplasia because the response to the treatment was similar in both groups.

Discussion: The difference in age at diagnosis, which is clearly higher in PM than in DM, probably as a result of the peak incidence of DM in children under 20 years, should be noted. Unlike that described in the literature in our series males were more frequent and there was a greater association of DM with autoimmune diseases, systemic lupus erythematosus (SLE) being the most frequent. The PM was associated with cancer with a clearly higher than usual frequency. The age at diagnosis is 10 years higher in patients with neoplasia than in patients without malignancy which is in agreement with that previously described. The mean levels of CPK were higher in patients with associated malignancies. The ANA were positive in a lower percentage than that reported in other series in the literature and anti Jo-1 was not present in any patients. The response to treatment of the autoimmune disease is not influenced by the presence of poor prognostic factors or by the presence of neoplasia.

Conclusions: In our series of autoimmune inflammatory myopathies there is a higher prevalence of males and more cases associated with neoplasia and autoimmune diseases such as SLE. Patients with cancer had higher levels of CPK and this group did not respond worse to treatment.

IF-8
IMMUNE SUPPRESSANT TREATMENTS IN A DAY HOSPITAL BELONGS TO AN AUTOIMMUNE UNIT OF INTERNAL MEDICINE DEPARTMENT

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Objectives: The aim of this study was to analyse the number of admissions to a Day Hospital belongs to an Autoimmune Unit, the type of immune suppressant treatments that had been prescribed, most frequent autoimmune diseases that received treatment in the Day Hospital and possible adverse effects of these treatments.

Material and method: We performed a retrospective study of 110 admissions to our Day Hospital belongs to the Internal Medicine Department of Complejo Hospitalario de Navarra of Pamplona during the year 2011. All patients had been diagnosed of Autoimmune Disease and were referred by an internist to our Day Hospital to receive immune suppressant treatment.

Results: 110 admissions to the Day Hospital were analysed. The average of admissions per month was 9.16. 39 (35.45%) admissions were due to the administration of subcutaneous adalimumab, 40 (36.36%) admissions due to intravenous injection of cyclophosphamide, 28 (25.45%) admissions due to intravenous injection of immunoglobulins, and 3 (2.7%) admissions due to intravenous administration of infliximab. The average dose of adalimumab was 40 mg per week, the average dose of cyclophosphamide was 837,5 mg per month (minimum dose: 500 mg, maximum dose: 1,000 mg), average dose of infliximab was 200 mg and the average dose of immunoglobulins was 28.75 g (minimum: 20 g, maximum: 45 g). Main autoimmune diseases were 29 (26.36%) admissions for treatment of systemic vasculitis, 39 (35.45%) for uveitis, 16 (14.54%) for inflammatory myopathies, 6 (5.45%) for systemic sclerosis, 4 (3.6%) for SLE and 16 (14.54%) for other diseases such as Behçet's disease and Job's syndrome. There were not any adverse effect during the infusion period, no treatment had to be stopped due to secondary effect and there weren't any infection during the period of treatment.

Discussion: Inpatient treatment is an expensive way of caring patients. Nowadays, day hospitals are an useful and effective option to treat several diseases such as infections and mental disorders. Autoimmune disorders need periodic infusions of immune suppressants. In our study nine admissions per month were referred to our day hospital. The most frequent treatment was cyclophosphamide followed by adalimumab. Systemic vasculitis and uveitis were the most frequent autoimmune disease that were admitted. We report no adverse effect or infection during the treatment in the day hospital, consequently the use of day hospital is an alternative to outpatient in the treatment of autoimmune disorders.

Conclusions: We can conclude saying that Day Hospital could be a useful tool for prescription of immune suppressants in Autoimmune Units of Internal Medicine Departments as a result of the lack of adverse effects and complications of immune suppressants reported in our study.

IF-9
INSULIN RESISTANCE, ENDOTHELIAL DAMAGE AND C3 CONVERTASE, TRIPLETS WALKING HAND IN HAND

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Objectives: The aim of the study was to investigate the correlation between serum C3 convertase levels and HOMA model.

Material and method: Population: 369 patients from the endothelial pathology unit, who had serum C3 determinations in their first visit. Patients with type 1, LADA and MODY diabetes were excluded. C3 convertase was measured by nephelometry (mg/dl), glucose by an HITACHI autoanalyzer and insulin levels (uU/mL) by immunometric assay (Immulite DPC). HOMA (Homeostasis Model Assessment) score: fasting insulin (uU/ml) × fasting plasma glucose (mmol/L)/22.5. Statistical analysis: Continuous variables described as mean (SD: standard deviation). Pearson's correlation coefficient. Multivariate limear regression. Comparison between groups: student's t-test. Normality assessed by Kolmogorov-Smirnov test. Levene test for Equality of Variances. Anova test for the analysis of variance. Alpha = 0.05.

Results: Population: aged 55 (14.6) range 17 to 90 years, 58.5% males, 53% hypertensives, 20% smokers, 25% diagnosed with hyperglycemia. C3 serum levels ranged from 65 to 236 mg/dl. Mean 133.3 (SD: 25.7). No significant differences were found in C3 levels between males and females. C3 levels were not correlated to age. Insulin resistance HOMA score: 2.5 (1.84), range: 0.4 to 11. C3 was significantly correlated to insulin resistance ($r = 0.37$; $p < 0.001$) in our whole population. Being significant in males ($r = 0.30$; $p < 0.001$) and in females ($r = 0.43$; $p < 0.001$). Dividing in to tertiles according to age (cut-off points: 48.0, 61.0 y.o.), we also found statistical significance with $p < 0.001$ in both genders, except for men over 61 y.o. with borderline significance. Linear correlation between C3 and HOMA remains statistically significant after adjustment by BMI, sex and age (standardized B coefficient, $\beta = 0.358$, $p < 0.001$).

Discussion: The C3 convertase/ASP system (acylation stimulating protein) has been recognized as a regulator of the lipid metabolism and glucose uptake (Cianflone et al. 2003). The impaired postprandial fatty acid metabolism plays a key role in the pathogenesis of Metabolic Syndrome (MS) (McGarry 2002, Sniderman et al. 1998), contributing to insulin resistance (IR) (Roden et al. 1996) and endothelial dysfunction (Van Oostrom et al. 2007). The pathophysiological role of C3 in the MS and diabetes remains unclear (Van Oostrom et al. 2007). The C3 was found to be a strong marker of insulin resistance in elderly Italians (Muscari et al, 2007). The C3 as an acute phase reactant has been associated with atherosclerosis (Onat et al. 2005). However, it has not been studied to date the independent association of C3 complement factor with the development of complete MS and IR.

Conclusions: High levels of C3 convertase are linearly correlated with increased risk of insulin resistance in the overall population of our study in both sex. C3 come forward as a self-reliant predictor of insulin resistance, independent of other factors that classically can influence over the insulin resistance such as age, gender and BMI.

IF-12
ANTIPHOSPHOLIPID ANTIBODIES ASSOCIATED WITH INFECTIONS

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Objectives: Antiphospholipid antibodies (aPL) have been detected on several infections, without knowing their pathogenic mechanism. A molecular mimicry between infectious peptides and aPL, has been proposed as a possible theory of the pathogenic mechanism. The aim of this study, was to analyse how three infections, EBV, Coxiella burnetii, toxoplasmosis could induce the production of aPL.

Material and method: We performed a retrospective review of ten cases, during 3 years in the Internal Medicine Department of Complejo Hospitalario de Navarra-B of Pamplona. 4 patients were diagnosed of Coxiella burnetii infection, 3 of EBV infection and other 3 of Toxoplasmosis infection.

Results: 4 patients suffered from Coxiella burnetti infection, all were men, from 23 to 83 years old. The liver was the main organ affected in 3 of them, but the other presented heart disease and adenopathies. Those who had liver infection, only 2 of them induced the production of lupus anticoagulant (LA) and just one produced anticardiolipin antibodies (aCL) and β2 glycoprotein I (β2GPI). The patient with heart affection induced the production of LA, and died during the study. No trombotic events were reported. After 1 to 6 months, aPL were all negative. 3 patients presented Toxoplasmosis infection, 2 were men, from 32 to 42 years old. Two presented uveitis and the other had pericarditis. 2 induced the production of LA and just one produce aCL. Only the patient with cardiac toxoplasmosis and positive LA, presented a retinal arterial thrombosis. After 12 months he had negative antibodies. 3 patients were collected with EBV infection, 2 were men, from 26 to 45 years old. 2 had affected the skin, lung and spleen and the other one suffered from hepatitis. One patient with skin and lung manifestations, induced the production of the three types of aPL, (LA, aCL, β2GPI). This patient surprisingly, didn't produce any thrombotic events and after a month had negative antibodies. The patient with hepatitis, induced the production of LA, and after a month it was negative. The patient with skin and spleen infection, induced the production of LA and β2GPI, and at the moment, they still remain positive. 7 patients received, acetylsalicylic acid 100 mg/day as treatment. The patient with retinal thrombosis was treated with anticoagulant doses of low molecular weight heparin (LMWH). The patient with Coxiella burnetti cardiac infection, which died during the study, was treated with prophylactic doses of LMWH. Only the patient with EBV infection and the production of the three antibodies didn't received treatment, because of the negativation of the antibodies one month later.

Discussion: In our 10 cases, only one suffered a thrombotic event. In contrast, the patient with the three positive antibodies (aPL, aCL, β2GPI) didn't present any thrombotic complication. After reviewing current literature, we found that the viral infections have a greater preponderance to thrombosis, rather than bacterial or parasitic infection. But in our series, only the patient with Toxoplasmosis presented the thrombotic manifestation.

Conclusions: Although many infections, could induce the production of aPL, few cases show manifestations of antiphospholipid syndrome (APS). It isn't still clearly determined the pathogenic role of aPL associated with certain infections.

IF-14
PREVALENCE OF SUBCLINICAL ATHEROSCLEROSIS IN PRIMARY ANTIPHOSPHOLIPID SYNDROME

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Objectives: To know the prevalence of subclinical aterosclerosis evaluated by measuring carotid intima media thickness (IMT) in primary antiphospholipid syndrome.

Material and method: All the patients included were diagnosed with APS (Sydney criteria) and followed in the consultation of systemic autoimmune diseases unit in a tertiary level hospital. After obtaining informed consent, all demographic data, classics vascular risk factors (hypertension, smoking, hyperlipidemia,

diabetes, obesity), as well as homocysteine and C reactive protein levels and clinical and analytical data for the APS activity of all the participants were collected. Carotid Doppler ultrasound examinated the common carotid artery and the carotid bifurcation (1-2 cm). In each study, we evaluated the IMT and atheroma plaques. Subclinical atherosclerosis was defined as IMT greater than 0.9 mm and plaque as IMT more than 1.2 mm. The interobserver variability was examined in every one in 5 patients.

Results: Descriptive, cross-sectional study which included 52 patients with APS, 19 males and 33 females; average age: 43.65 years (26-71). Thrombosis 76.9%: 40.4% venous thrombosis (TV), 28.8% arterial thrombosis (TA), 13.5% both TA and TV, and 21.2% obstetric manifestations (MO). 1.9% with thrombosis and MO. 50% of patients with TV had pulmonary embolism. In those patients with TA, stroke: 19.2%, transient ischemic attack: 15.4% and coronary involvement: 9.6%. Related to antiphospholipid antibodies (aPL), Lupus anticoagulant: 71.2% and persistent 86.5%; aCLG: 63.5% and persistent in the 90.4%; the aCLM: 17.3%. Anti B2 G positive at 52%, persistent and at high levels in 38% of cases and the antib2M in the 26.9%. The more prevalent classics cardiovascular factors were 30% smokers; 38.5% had hypertension and 28.8% dyslipidemia, the most common of which being the mixed dyslipidaemia in 17.3% and 26.9% hyperhomocysteinemia. The 34.6% received antiplatelet, anticoagulation 40.4% and 17.3% combined treatment. The IMT medium in our series was 0.87 mm; 30.8% presented thickening of the intima greater than 0.9 mm and 9.6% plaque. We found statistical association between IMT and age in years ($p < 0.01$), male sex ($p < 0.05$), arterial events ($p < 0.05$), coronary events ($p < 0.04$), dyslipidemia ($p < 0.01$), diabetes ($p < 0.01$), B2GPI G ($p < 0.04$) and plaque ($p < 0.02$). Multivariate analysis showed a connection between IMT and male sex (OR 7.84; 95%CI 0.90-68.36), age in years (OR 1.08; 95%CI 1.00-1.18) and dyslipidemia (OR 17.16; 95%CI 2.31-127.50).

Discussion: The prevalence of preclinical atherosclerosis and its association with cardiovascular risk factors in APS patients is little studied and its results may differ from different publications.

Conclusions: In our study, we found prevalence of subclinical atherosclerosis in 40% being statistically significant with dyslipidemia, age and male sex. We found no links with the APS nor with aPL in the multivariate analysis, probably due to the small sample size.

IF-15
LYMPHOPENIA IN ELDERLY IN-HOSPITAL PATIENTS

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Objectives: To assess the prevalence and features of in-hospital elderly patients with lymphopenia.

Material and method: 50 consecutive in-hospital patients have been included. Lymphopenia was considered < 1,100 × 10^9/l.

Results: 26 males (52%), mean age 84.23 (SD 6.17). Cardiopulmonary disease was the main diagnosis in 36 patients (72%). Mean Pfeiffer 2.73 (SD 2.3) and Barthel 65.9 (SD 29.09).

Discussion: Infections seems to be more likely in lymphopenic patients. Calcidiol levels tends to be lower as well. A greater number of hospital admission in the last year and a greater likelyhood of death have been found.

Conclusions: Lymphopenia is a frequent disorder (32%) related with infections, number of admissions and death, and lower calcidiol.

Table 1 (IF-15). Features of patients with lymphopenia

	Mean (SD)/number (%)
CD4/CD8 (× 10^9/l)	244.67 (SD 129.51)/194.47 (SD 94.59)
Ratio CD4/CD8 (% inverted ratio)	1.26 (33.3%)
Lymph B (× 10^9/l)	52.77 (SD 40.86)
Hypergammaglobulinemia	6 (40%)
Hypogammaglobulinemia	1 (6.7%)
Autoimmune disease	1 (6.7%)
Cancer	2 (13.3%)
Hepatopathy	2 (13.3%)
HBsAg +/AntiHBc +/HVC +	1 (6.7%)/2 (13.3%)/1 (6.7%)
ANA +/RF +	8 (50.2%)/2 (13.4%)

Table 2 (IF-15). Univariate between groups

	With lymphopenia (n = 16)	Without lymphopenia (n = 34)	Significance
Age (years)	83.63 (SD 5.98)	81,77 (SD 15.96)	0.656
Sex(male)	7 (43.75%)	19 (55.88%)	0.423
Infections 5 last years	-	-	-
Pulmonary	11 (73.33%)	10 (30.3%)	0.018
Urinary	7 (46.67%)	6 (18.18%)	0.131
Gastrointestinal	3 (20%)	0	0.026
Albumin (g/l)	34 (SD 4.79)	33.11 (SD 6.20)	0.618
Calcidiol (nmol/l)	27,94 (SD 11,12)	31,36 (SD 18.17)	0.510
Calcidiol insufficiency (< 50 nmol/l)	15 (100%)	27 (93.1%)	0.540
Calcidiol deficiency (< 30 nmol/l)	8 (53.3%)	17 (58.6%)	0.737
Admissions last year	3.31 (SD 2.46)	2.15 (SD 1,66)	0.072
Hospital length of stay (days)	17,15 (SD 8.49)	17,69 (SD 19.66)	0.926
Death	3 (21.43%)	2 (6.90%)	0.309

IF-17
USEFULNESS OF INTRAVENOUS CYCLOPHOSPHAMIDE IN TREATMENT OF SEVERE AUTOIMMUNE DISEASE. EXPERIENCE OF AN INTERNAL MEDICINE SERVICE-AUTOIMMUNE DISEASE UNIT

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Objectives: To evaluate the number of patients that were treated with intravenous cyclophosphamide (CYC), dose, number of pulses, autoimmune diseases, flare-up, remission, and secondary effects.

Material and method: We retrospectively evaluated the number of patients who received intermittent pulses of CYC in the period from November 2007 to February 2012 at Internal Medicine Service Department of Complejo Hospitalario de Navarra-B. Intravenous CYC was administrated following international established and approved protocols for autoimmune diseases. We studied the following data: number of patients, age and sex, average dose of CYC and number of pulses per patient, type of autoimmune disease, flare-up, remission and secondary effects.

Results: We reported 22 patients treated with intravenous pulses of CYC. The average dose was 790.90 mg (min dose: 500 mg, max dose: 1,000 mg) with an average pulses of 4.9 pulses per patient (min: 1, max: 13). Patients had a mean age of 52.72 years (23-72). 14 patients were women and 8 were men. Principle disorders were: 13 systemic vasculitis, 4 lupus (SLE) and antiphospholipid syndrome (APS), 2 systemic sclerosis, 1 antisynthetase syndrome, 1 retroperitoneal fibrosis and 1 Sjögren's syndrome. CYC was infused in 19 patients due to a flare-up of their disease as a first choice treatment in that moment, while 3 patients received CYC due to the failure or intolerance of previous treatments (one patient with lupus membranous nephropathy with no remission with azathioprine, other with retroperitoneal fibrosis resistant to steroids and tamoxifen and another with polyarteritis nodose with intolerance to steroids). In the group of patients with systemic vasculitis (13 patients) 9 had a pulmonary flare, 2 had a renal flare, one had a cutaneous disease and the other one suffered from mesenteric ischemia. The types of flares up in SLE patients were: 2 active lupus nephritis, one haematologic flare (anemia and neutropenia) and one aseptic meningitis. Both patients with systemic sclerosis suffered from pulmonary fibrosis, the patient with antisynthethase syndrome was also affected by pulmonary fibrosis and the patient with Sjögren's disease presented cervical myelopathy. After treatment with pulses of CYC, 12 patients didn´t achieve remission, whereas 9 patients achieved remission and 1 patient is still in treatment. In six patients pulses of CYC had to be stopped due to secondary effects. In 3 patients CYC produced gastrointestinal intolerance, in one cutaneous rash and in 2 patients CYC produced neutropenia. Two patients died during their treatment due to the severity of their disease.

Discussion: CYC is one of the most powerful immunosuppressive treatments used in patients with severe autoimmune disease in Internal Medicine Departments. CYC could be administrated in daily oral dose or intermittent pulses. Although CYC is very effective has adverse effects such as infections, bladder toxicity and neutropenia. All our patients received intermittent pulses of CYC intravenously every three or four weeks, we chose this way of administration due to the long-bladder complications of daily oral therapy. All patients received bladder protection with MESNA and prophylaxis for Pneumocystis jirovecii infection with trimethoprim-sulfamethoxazole. In our experience the main indication was the treatment of flare of systemic vasculitis and the main organ affected was the lung. The treatment was satisfactory nearly in fifty per cent of the cases treated. Two patients died but not because of the treatment with CYC. The two main secondary effects were gastrointestinal and neutropenia. We didn't report any opportunistic infection or cystitis.

Conclusions: Currently intravenous cyclophosphamide is still an useful and secure treatment for severe systemic autoimmune disease in Internal Medicine Departments.

IF-18
IMMUNOGLOBULINS IN A COUNTY HOSPITAL, IS IT WORTH IN TIME OF CRISIS?

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Objectives: The aim of this study was to determine the use or intravenous immunoglobulin (IVIG) in terms of consumption, indications, medical prescribers and a clinical follow up of patients treated with IVIG, through an assessment of the justification and the rationale of the use.

Material and method: The study was conducted at the Hospital Vega Baja in Orihuela (Alicante). This hospital has about 380 beds. This is a retrospective study of the use of IVIG from January 1st 2011 to April 30th, 2012. The ratio of patients was reported by the application of the IVIG in the pharmacy department. The clinical records of patients were retrospectively reviewed. They were divided into two categories according to the indication by which IVIG was prescribed: A. Authorized in Spain by the Agencia Española de Medicamentos y Productos Alimentarios (AEMPS). B. Not authorized in Spain but scientifically accepted in the medical literature.

Results: The number of patients who were prescribed an IVIG in this period was 30; two patients were excluded because of missing data. 14 of the 28 remaining were men (50%) and 14 women (50%). With an average age of 54 years old. The groups were divided as follows: 6 in group A (21.42%) and 22 in group B (78.57%). In 18 cases of 28 the Neurology service was prescriber (64.28% of total), 94.1% of whom belonged to group B. In 2 cases of 28 the IVIG was used for Hematology Service (7.14%), 100% of whom belonged to group A. 8 cases of 28 were treated by internists (37.5% belonged to group A and 62.5% belonged to group B). The mean therapeutic session was 5.61 per patient. At least 18 patients were taking other immunosuppressive agent; prednisone (64.285) was the most frequent drug. With regard to the side effects they have not been described during the use of IVIG. Only one patient in the sample died during the follow-up.

Discussion: The price of the vials of IVIG is between 223€ to 400€. The use of IVIG is known in clinical situations in which the indications are not approved as in our sample which is up to 78% of cases. Several studies on its rational use have been carried out; however, we have asked the same questions for 25 years. Note that in Neurology IVIG is widely used for myasthenia gravis and multiple sclerosis, literature has shown an improvement in symptoms. More importantly, there are some bureaucratic difficulties when trying to use this therapy with off-label drugs. Finally, as in other studies, the off-label use in IVIG prescriptions is mostly covered by the Neurology service. We stress the importance of establishing protocols for a rational use of IVIG among internal medicine and pharmacy department.

Conclusions: In our sample, most were IVIG guidelines for off-label use. No side effects in the use of IVIG were reported, the mortality rate in the sample was very low. There is still a loophole in the use of IVIG for the indications supported by scientific literature but not approved by health authorities. This

leads to a greater off-label use, with the legal problems involved. It is important to mention that the departments of internal medicine should work in collaboration with the pharmacy department in order to develop the protocols of IVIG treatment and to ensure its effectiveness and cost-effectiveness. The approval of those indications could be raised with the AEMPS, as the use of the IVIG has been sufficiently justified by scientific evidence.

IF-20
SARCOIDOSIS- STATISTICAL ANALYSIS OF INTERNAL MEDICINE AND PNEUMOLOGY CONSULTATION IN DISTRICT HOSPITAL

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Objectives: Characterize the sarcoidosis patients followed in Internal Medicine and Pneumology Consultation of District Hospital.

Material and method: Retrospective study of individual clinical files of patients diagnosed with sarcoidosis followed in Internal Medicine and Pneumology Consultation of our hospital. Statistical analysis was carried out with the support of Statistical Program for Social Sciences (SPSS), version 20.

Results: The sample consists of 27 patients, with average age of 47, 89 ± 13.73 years. The feminine gender was most prevalent (59% of sample). In Women, the age most affected was 41 to 50 years and in men was 31 to 40 years. Regarding smoking habits, the majority were non smokers (78% of cases). At admission, 86% had symptoms related to the organ involved by sarcoidosis. The most observed symptoms were erythema nodosum (33%), dyspnea (22%), dry cough (19%) and asthenia (19%). Extra-thoracic manifestations were found in 67% of cases. The lung was the most involved organ (52% of cases). The angiotensin converting enzyme was increased in 37% of the sample. Among the patients who underwent bronchoalveolar lavage, 60% had lymphocytosis greater than 15% and 22% had increasing CD4/CD8 ratio. The diffusing capacity for carbon monoxide was normal in 44% of cases and 33% of sample was not screened. The predominant radiological type was I (37%), followed by type III (26%) and type II (22%). The radiological types 0 and IV were 7% of cases. The skin biopsy was more held (22% of cases), followed by lymph nodes biopsy (15% of cases). On chest radiograph, bilateral hilar strengthening was more common (17 cases). On CT scan, 82% of sample has hilar and mediastinal lymphadenopathy and 48% of sample has micronodular pattern. The corticosteroid therapy was held in 16 patients. Concerning disease activity, 63% of patients had active disease and 37% of patients had remission. Pulmonary fibrosis was the most common complication, present in 30% of sample.

Discussion: Although relatively small sample, this results are according to what is described in the scientific literature.

Conclusions: Sarcoidosis is a multisystemic granulomatous disorder of unknown etiology, with many clinical presentations. It affects individuals worldwide, people of all racial groups, sex and age, although it commonly strikes young people with slight female preponderance. Many patients do not require therapy and their conditions will spontaneously improve. Although corticosteroids are used for symptom relief and remain the mainstay of therapy, their efficacy in this disease is unclear. Due to the significant heterogeneity in prevalence, disease presentation, severity and prognosis, sarcoidosis is a challenging diagnosis.

IF-21
INFLAMMATORY ACTIVITY ASSESSMENT BY F18-FDG-PET/CT IN PATIENTS WITH SARCOIDOSIS

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Objectives: To assess the presence of inflammatory activity using FDG-PET/CT in patients with sarcoidosis.

Material and method: A prospective study was undertaken of 36 whole-body F18-FDG-PET/CT scans performed in 32 patients with biopsy-proven sarcoidosis. Patients characteristics included: 19w/13m, 29-69y, diabetes: 1, chronic.

sarcoidosis: 19 (3 to 23 y), neurosarcoidosis:1. Prolonged fasting was required. In 10 scans patients received corticosteroids. Positive findings were classified as thoracic and/or extrathoracic, measuring SUVmax in all active lesions. Thoracic findings in the CT were classified as typical or atypical. The left myocardial FDG uptake was quantified on a scale of 0-4, with grade 0 being no apparent activity, grades 1-2-3 physiological pattern with diffuse activity (3 > liver) and grade 4 abnormal.

Results: Indications included (36 scans): 1) assessment of presence of pulmonary activity in chronic fibrotic pulmonary sarcoidosis (14), 2) monitorization of response to corticosteroids (3, as the second PET), 3) characterization of mediastinal lymph nodes (7), 4) detection of occult activity sites (3), 5) assessment of presence of inflammatory activity in systemic sarcoidosis (6, a second PET in 1), 6) staging in cancer patients with previously known sarcoidosis (1) and 7) detection of occult primary malignancy (2). PET/CT showed pulmonary activity in 11/14 patients with chronic fibrotic pulmonary sarcoidosis. The 3 second PET scans after corticosteroid therapy showed a significant reduction in pulmonary uptake. Positive findings were seen in 30/36 scans (83%): 12 thoracic, 2 extrathoracic and 16 both. The most common positive sites were mediastinal lymph nodes (24), lung (17) and abdominal lymph nodes (12) with ranges of SUVmax of 3 to 44.Eight scans showed occult sites in abdominal lymph nodes, muscle, skin and spleen. Left ventricular FDG uptake was present in 29 scans: physiological pattern in 28 (grade 3 in 14) and grade 4 in 1. In 26/36 (72%) PET scan changed the management of the patient, guiding biopsy/other tests (13) or corticosteroids (13).

Discussion: FDG-PET/CT appeared to be a sensitive method to detect inflammatory activity in sarcoidosis. It seems to be useful in the assessment of residual activity in fibrotic pulmonary sarcoidosis and may help to therapeutic decisions. In addition, it is a valuable tool to detect occult activity sites identifying extrathoracic involvement (> 60% patients) and may be used to guide biopsies.

Conclusions: FDG-PET/CT is useful to detect residual activity in chronic pulmonary sarcoidosis. In addition, it is of value in identifying occult sites in systemic disease and may be used to guide biopsy.

IF-22
CHRONIC SARCOIDOSIS. A DESCRIPTIVE STUDY OF 41 PATIENTS

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Objectives: To report the clinical, radiological, lung function features and follow-up of 41 patients with chronic sarcoidosis.

Material and method: Retrospective assessment of 41 patients with chronic sarcoidosis. Chronic sarcoidosis was defined as

persistence of disease activity for more than 5 years since the diagnosis.

Results: 26 (63%) patients were females, the mean age at diagnosis was 46 years (range 8-77) and all the patients were Caucasian. At diagnosis, 5 (13%) patients showed radiological stage 0, 12 (30%) stage I, 12 (30%) stage II, 7 (18%) stage III and 3 (8%) stage IV. Extrathoracic organ involvement at diagnosis and during the follow-up time was as follows: 21 (51%) had specific skin lesions (9 maculopapular lesions, 7 plaques, 4 scar sarcoidosis, 4 subcutaneous nodules and 3 lupus pernio), 12 (29%) spleen, 12 (29%) salivary/lacrymal glands, 10 (24%) peripheral lymph nodes, 10 (24%) ocular, 7 (17%) hypercalcemia, 4 (10%) neurological and 4 (10%) erythema nodosum (Löfgren's syndrome). SACE level at diagnosis was increased in 24/35 (69%) patients. After 5 years, radiological stages had evolved as follows: stage 0 in 10 (28%) patients, stage I in 4 (11%), stage II in 8 (22%), stage III in 8 (22%), and stage IV in 6 (17%). Impairment in pulmonary function tests (< 80% of predicted values) at diagnosis (and after 5 years) were as follows: FVC in 24% (30%) of patients, FEV1 41% (37%), and DLco 27% (42%). 35 (85%) patients were treated with corticosteroids. 11 (27%) patients also received other immunosuppressant drugs either alone or associated with corticosteroids (methotrexate, azathioprine or hydroxycloroquine). 3 (7%) patients died because of sarcoidosis.

Discussion: Chronic sarcoidosis has a wide variety of clinical and radiological manifestations. Extrathoracic involvement may be extensive and emphasises the systemic nature of the disease. Interestingly, 13% of patients had only extrathoracic involvement (stage 0). Stages III and IV at onset were present in only 26% of patients and after 5 years in 39%. Occasionally, patients with Löfgren's syndrome may evolve to chronic disease. The number of patients with lung function – FVC and FEV1 - impairment remained relatively stable after 5 years. However, the number of patients with decreased DLco increased after 5 years. Long-term immunosuppressive therapy is usually required. Death is uncommon.

Conclusions: Chronic sarcoidosis is a systemic disease with heterogeneous clinical and radiological manifestations. After 5 years, the majority of patients have remained with relative clinical stability, with mild lung functional deterioration.

IF-23
INFLAMMATORY BOWEL DISEASE (CROHN'S DISEASE) AND CONCOMITANT AUTOIMMUNE DISEASE: CLINICAL REASONS FOR COMMON INFLAMMATORY PATHWAYS

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Objectives: To describe any clinical association between Crohn' disease (CD) and autoimmune disease.

Material and method: We designed a retrospective study (1988-2012) in the internal medicine department, reviewing the electronically data files searching the next keywords: CD and diagnosis of autoimmune disease (or immunologic dysfunctional disease) of any kind, after, before or coexisting with knowledge IBD. Patients could have been treated with any immunosuppressive therapy.

Results: 89 patients were analyzed. Of them, 8 cases (female:male ratio 1.66) had got during following-up any coexistence of autoimmune diseases (isolated, sequential or in combination): multiple sclerosis (n = 1), sarcoidosis (n = 1), Sjögren's syndrome (n = 2), psoriasis (n = 2), nodous erythema (n = 2), antiphospholipid syndrome (n = 1), thrombotic thrombocytopenic purpura (n = 1), anterior optic neuritis (n = 1) and osteoarticular symptoms (bilateral sacroiliitis and arthritis n = 2; one HLA-B27+). The median age of CD diagnoses was 26.37 years (SD 11.36), and of autoimmune disease was 24 years (SD 8.48). Then, the average accumulated incidence of autoimmune disease was 14.6% in 24 years. Half of patients had terminal ileum affection and surgical resection should be performance in 3 cases. Therapeutic agents were corticoids (n = 5), sulfazalazine/mesalazine (n = 4), methotrexate (n = 1), plasmapheresis (n = 1) and mercaptopurine (n = 1).

Discussion: Inflammatory bowel disease (IBD), multiple sclerosis and autoimmune diseases are chronic inflammatory entities, which show acute and recurrent flares and/or indolent evolution. Cytokines are essential molecular signals that regulate migration and other leucocytes functions. So they are the main factors in inflammation pathways up and down regulation, which could be related to different autoinflammatory and autoimmune diseases. In some patients seems that autoimmune manifestations can onset before that the CD, although these median of age differences could be artifact, due to the fact that relation between CD and autoimmune disease was distributed in three equal parts (coincidence, after or before IBD diagnosis). IBD and autoimmune entities share common inflammatory pathways confluence in T lymphocyte (Th17,STAT3). Dysregulation of STAT3 pathway has therefore been implicated in the development of chronic autoimmune diseases, as well as, a number of malignant and neurodegenerative diseases. It suggests common risk factors that favour these associations, opposite to a multiorganic, systemic affection, aimed in a unique molecular mechanism.

Conclusions: Coexistence of IBD and autoinflammatory disease is a rare clinical association, but it does possible to find it in day-by-day clinical practice, due to its common molecular inflammatory pathways.

IF-24
HOSPITALIZATION AS PRECIPITATING FACTOR FOR ACUTE GOUTY ARTHRITIS

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Objectives: Primary objective in our study was to evaluate whether hospitalization itself could play a role in development of episodes of acute gouty arthritis. As secondary objectives, we analyzed clinical features of these patients, evaluating average age, duration of stay and whether they were previously diagnosed with hyperuricemia or gout.

Material and method: We revised medical records of all patients who suffered an acute gouty arthritis attack during their stay for a period of 14 months (January 2011 to February 2012) in our hospital. We excluded those patients who had symptoms before their admission. We collected data about all known precipitating factors (trauma, surgery, drugs, etc), epidemiological features (age, sex), personal history of hyperuricemia or gout, service of hospitalization, and average stay.

Results: Clinical records of 43 patients were revised from both medical and surgical departments in our hospital. 31 patients (72.1%) were men, with a mean age of 73.16 (SD 14.54). 20 patients (46.5%) had personal history of hyperuricemia or gout, but only 9 (45%) of them were receiving antihyperuricemic therapy. In most cases (67.4%) precipitating factor was not clear. The most frequently known cause was surgery (14.0%) and pharmacological cause (9.3%). The average stay was 15.35 days (SD 12.87). Most cases were registered from Gastroenterology (25.6%), Cardiology (25.6%) and Internal Medicine (20.9%) departments.

Discussion: Hyperuricemia is a very common condition, with a high prevalence and incidence in our environment. Hyperuricemia is known as a necessary condition to develop gout (monosodium

urate crystal deposition disease), although other circumstances are known to be necessary to develop an acute attack of gouty arthritis. These circumstances include trauma, surgery, drugs, diet, dehydration, among others. Recent studies point hospitalization as a precipitating factor to develop an attack. In our study, we evaluated all new cases of gouty arthritis in hospitalized patients during more than a year to analyze precipitating factors. Some of the circumstances mentioned before were present (especially surgery and drugs), but in most cases (67,4%), precipitating factor was not clear. Although one limitation of our study was that is hard to determine if some other factors (dehydration, diet changes not reported by patients, etc) could influence the apparition of these attacks, we can interpret the high rate of unclear cases as point for hospitalization being a precipitating factor itself. We found gouty arthritis to be much more frequent in male than female, and almost half of cases appeared in patients with a previous diagnosis of hyperuricemia or gout.

Conclusions: Hospitalization can be considered as a precipitating factor itself for development of an acute attack of goutyarthritis. In our study, almost half of patients who suffered acute gouty arthritis were not previously diagnosed with hyperuricemia or gout.

IF-26
CALCINEURIN INHIBITORS IN A COHORT OF PATIENTS WITH ANTISYNTHETASE-ASSOCIATED INTERSTITIAL LUNG DISEASE. AN OBSERVATIONAL STUDY

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Objectives: To assess the effect of calcineurin inhibitors (tacrolimus or cyclosporine) for treating patients with interstitial lung disease (ILD) associated with antisynthetase autoantibodies.

Material and method: Sixty patients with antisynthetase autoantibodies were identified in our myositis cohort of 179 patients. The medical records of 15 patients with antisynthetase autoantibody-associated ILD treated with tacrolimus/cyclosporine (4 as first-line therapy and 11 for refractory disease) between 1980 and 2011 were retrospectively reviewed. Fifteen patients with antisynthetase autoantibody-associated ILD who were not treated with calcioneurin inhibitors during the same period were included as a comparison cohort. Serial pulmonary function test were used to assess the clinical response. Comparisons were performed using the Fisher's exact test and Mann-Whitney test.

Results: Patients had received tacrolimus/cyclosporine for an average of 18 (IQR 12-29) months. In treated patients, median age at onset of ILD was 42.3 (IQR 32.4-56.8) years and median duration of lung disease before administration of calcineurin inhibitors was 11 (IQR: 5-49) months. Median duration of follow-up was 24 (IQR 12-32) months. A more than 10% increase in FVC and/or FEV, or stabilization was observed in 12 (80%; 95%CI: 52-96) patients who received calcineurin inhibitors (4 [100%] as first-line therapy and 8 [72%] refractory cases), and in 10 (66%; 95%CI: 38-88) patients in the comparison cohort (p = 0.68).

Discussion: The clinical course of ILD, a common feature in patients with inflammatory myopathies, especially in those with antisynthetase syndrome, is heterogeneous and varies from asymptomatic forms to chronic or rapidly progressive lung disease. The immune mechanism that underlies antisynthetase-associated ILD is uncertain, although some authors have reported a predominance of CD8+ activated T cells in bronchoalveolar lavage or lung tissue. Therefore, T-cell targeted therapies such as calcineurin inhibitors (tacrolimus/cyclosporine) might be of benefit in these patients. Our data are consistent with the results of other reports showing the benefit of calcineurin inhibitor therapy in patients with ILD associated with antisynthetase antibody syndrome.

Conclusions: Calcineurin inhibitors seem to be a good therapeutic option for managing ILD associated with antisynthetase autoantibodies, not only in refractory cases but also as a first line treatment.

IF-27
ADULT STILL´S DISEASE: CASES REVIEW IN A GENERAL HOSPITAL

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Objectives: To describe the epidemiological, clinical and blood test characteristics of the patients diagnosed of Still´s disease in our hospital since year 2000.

Material and method: A retrospective study of the patients diagnosed of Still´s disease in the 2000-2011 period was done. All the clinical features were analyzed, the same as laboratory tests, including haemogram, biochemistry, autoimmunity and ferritin, at the onset of the disease and along this period. Biopsies were also reviewed.

Results: Since year 2000, ten cases of Still´s disease have been diagnosed. The onset of all of them was at adult age. Five of them were women and the mean age was 32.9 years. They were Caucasian except an African one. At the moment of the diagnosis, eight patients had fever and nine of them arthritis (poliarticular form) and in seven the last of the pain was more than two weeks. A skin rash could be seen in six and adenopaties in five. Only one biopsy was performed and showed reactive linphadenitis with a mix pattern (paracortical expansion, follicular hyperplasia, hystiocitosis and eosinophylic infiltrate). Six patients had sore throat and two suffered from pleuritis and pericarditis. In the blood test there were high ferritin levels in all patients with a mean of 4,039.6 ng/ml. Only one of them had positive Antinuclear Antibodies (ANA) and Rheumatoid factor in two, without low levels of complement. The mean value of RCP was 184.5 mg/ml and 60% had leucocytes levels higher than 10.000 (mean neutrophils of 82%). All but one had hypertransaminemia (AST 144 UI/ml; ALT 162.2 UI/ml) and just in four there was hepato or hepatoesplenomegalia. Blood cultures were negative at diagnosis, the same as HIV, HCV and Salmonella serology. One patient had a chronic infection of HBV and another one had a positive Parvovirus IgG serology. Chronic infection of EBV and CMV was present in 50% and 60% respectively. For treatment, all of them needed NSAID to control the symptoms but eight of them needed steroids and even metotrexate in two to control the disease.

Discussion: Adult Still´s disease is an inflammatory disease of unknown etiology. To consider the diagnosis is needed to exclude other illnesses, inflammatory, infectious or malignant and many criteria have been used to do it as the Yamaguchi ones. The prevalence is low as we could have seen in our study, only ten patients in the last eleven years and we have to think of it in fever of unknown origin. In the analysis is common to see leukocytosis and neutrophilia, acute reactants elevation and abnormalities in hepatic profile with just a small hepatomegalia. Ferritin levels are very important as they help to diagnose and control the treatment effects. The response to NAIDS alone is very poor in our patients, the same as in other series and just one patient did not need another therapy such as steroids or even metotrexate to control the symptoms.

IF-28
CRYOGLOBULINEMIC VASCULITIS IN ADULTS: DIFFERENCES BETWEEN HIGH AND LOW LEVELS OF IGG

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Objectives: Cryoglobulinemic vasculitis (CV) could be or not associated to chronic viral infections (mainly HCV +). However, independently from the underlying cause, CV usually has a chronic course, with flares and remissions. These flares are ethiopathogenic linked to B-cells activity and immune complex tissue damage. Polyclonal hypergammaglobulinemia IgG could be an indirect measure of this B-cell activity. Objectives: to study if there is any kind of clinical differences between high or low levels of IgG in CV in the autoimmune diseases Group of Madrid-Castilla La Mancha.

Material and method: A multicentric and retrospective study of consecutive patients with final diagnosis of CV was designed taking data from 4 centers of Madrid (Jan/1994-Mar/2012). The data were divided in two cohorts: high and low levels of IgG, selecting a cut point of 1800 mg/dl. The categorical variables were analysed using the χ^2 of Pearson test (or Fisher exact test where indicated) and continuous variables were compared using the Mann-Whitney or t-student for independent samples. A Kolmogorov-Smirnov test was firstly made to check the normal distribution of the continuous variables. p significance were < 0.05 for all statistical analyses, using the SPSS 18.0 version.

Results: Data of 56 patients were available for this analysis approach. Cohort 1 (IgG ≤ 1,800 mg/dl) included 39 patients; cohort 2 (IgG > 1800) had 17 cases. The following variables were analized: HCV (+), fever, asthenia, arthralgias, arthritis, weakness, myalgias, sicca syndrome, Raynaud's phenomenon, skin ulcers, purpura, distal cyanosis, livedo reticularis, dizziness, sickness, headache, nistagmus, any potential associated lung disease, arterial hypertension onset or worsening, renal insufficiency (and range of proteinuria) and nervous system. Of all of them, it was found a more frequent affection of peripheral nervous system (symmetric polyneuropathy) (Fisher test p = 0.022) in cohort 1. Crioglobulins turned negative also more frequently in cohort 1 (χ^2 p = 0.014). Recurrence, remission and mortality showed non-significance differences between both groups. Level of IgG did not influence on monoclonal antibodies therapy (Fisher exact test, p = 0.42). It wasn't found any statistical significance in Mann-Whitney and t-student test (ERS, C-reactive, serum creatinine, proteinuria range, plasma compounds of blood, ANA, C3/C4, age, months to diagnosis or total dose of cyclofosfamide or corticoids).

Discussion: Our results are limited by two main factors: low number of events in each cohort and a retrospective study design. The symmetric polyneuropathy observed in group 1 is just a statistic effect (event in group 2, n = 1). HCV (+) is not related to higher levels of IgG (retrospective design). Immune complex tissue deposition and low levels of complement factors still remain being the main pathophysiological events in CV. These data should be validated in larger cohorts of patients (prospective or larger retrospective studies).

Conclusions: Tissue damage, clinical manifestations and laboratory data in CV does not seem to be related to serums level of polyclonal IgG.

IF-29
CRYOGLOBULINEMIC VASCULITIS IN ADULTS. MAIN CLINICAL FEATURES AND SOME OUTCOMES RATES

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Objectives: Cryoglobulinemic vasculitis (CV) is a systemic vasculitis involving medium and small-sized vessels mediated through immune-complex reaction. The manifestations could be so heterogeneous, affecting wide range of organs and systems. Objectives: to assess the main clinical features of CV patients in the group of autoimmune diseases of Madrid-Castilla La Mancha.

Material and method: It was designed a multicentric and retrospective study of consecutive patients with final diagnosis of CV in 4 centers of Madrid (Jan/1994-Mar/2012).

Results: 59 patients were finally included for descriptive analysis, with female:male ratio 1.34. The median age of patients was 61.8 yrs (SD 16.91), with a delayed between clinical diagnosis and onset of symptoms of 9.56 months. HVC (+) were found in 69%; HVB (+) in 6.8%. The frequencies of cryoglobulinemic types were: type I (21.4%), II (55.4%) and III (23.2%). 11% had any kind of cancer. The general complains include headache (6.8%), fever (> 38ºC) in 16.9%, weakness (59.3%), arthalgias (40.7%). The more frequent cutaneous signs were Raynaud's phenomenon (10.3%), purpura (49.2%) or any other manifestation of vasculitis (27.1%). It was detected pulmonary infiltrates in 6.8% of cases, without any alveolar hemorrhage. New onset renal insufficiency was detected 20.3% of cases (nephrotic range, 6.9%; non-nephrotic proteinuria, 20.3%; hematuria, 18.6%), and arterial hypertension (39%). Symmetric polyneuropathy was detected in 27.1% of cases. Median IgG levels were 1,505.95 mg/dl. ANA were positives in 32%; ANCA, were negatives in all cases. The global mortality rate reached 23.78% (directly causes by CV 8.33%). Almost a third has got complete remission after different treatments schemas (22% reached negativization of crioglobulins). Recurrences happened in 13.47%. Of the total cases, 11.9% developed B-cell non-Hodgkin lymphoma.

Discussion: CV in adults is not only associated to chronic viral infections (HCV, HBV): more than 20% have not got any of them. The patients' illness complaints are wide, mostly affecting skin. Some of them could affect organ (renal, peripheral nervous system), even with severe damage. Mortality directly related to CV does not reach 10%, being the main causes of death the comorbidities and therapy adverse reactions.

Conclusions: CV has a wide range of clinical manifestations, which lead to a delayed in diagnosis of several months. Global mortality is more due to comorbidities and treatment side effects than to crioglobulinemia.

IF-30
RHUPUS: A CASE SERIES OF PATIENTS WITH RHUPUS AND SJRHUPUS

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Objectives: Among the clinical manifestations of systemic lupus erythematosus (SLE) is an arthropathy, which is usually nonerosive.

In many cases the joint involvement is mild. A subset of patients have deforming, nonerosive Jaccoud's arthropathy, and a minority (< 5%) have an arthropathy with clinical findings similar to rheumatoid arthritis (RA) that has been called "rhupus." We report our series of five patients Objectives: To analyse the clinical features and pathogenesis of overlapping features of rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE), termed 'Rhupus syndrome'.

Material and method: Patients meeting American College of Rheumatology criteria for RA and SLE.

Results: Five women, with rhupus arthropathy: Patients meeting American College of Rheumatology criteria for RA, SLE. Patients were between the ages of 28 and 52 years at the disease onset. The diagnosis was RA in 3 patients at the beginning. They developed SLE after an average of 2.3 years (range: few yrs to 3 years). Two patients have a history of familial lupus. All patients had a symmetrical small joint polyarthritis and features of SLE such as rash, photosensitivity (n = 5), oral ulceration (n = 2), serositis (n = 4), cytopenia (n = 4), and biopsy proven lupus nephritis (n = 1). Four had hypocomplementemia. Autoantibodies were characteristic of the two diseases: all patients had antibodies to double stranded DNA, four had rheumatoid factor and two had anti-CCP antibodies, four had antibodies to Ro (SS-A), antibodies ti La (SS-B) and anti Sm-RNP for two patients respectively. There was also an overlap of systemic lupus, RA and Sjögren termed "Sjrupus" (n = 3). Antiphospholipid syndrome (n = 2) and scleroderma (n = 1). Hematopoietic system manifestations were prominent in this population. Two patients developed macrophagic activation syndrome, with febrile pancytopenia, hyperferritinemia, hypertriglyceridemia with a rapidly deteriorating course with progressive pancytopenia and death despite immunosupressive therapy.

Conclusions: Most of the Rhupus syndrome patients firstly presented with RA and showed less SLE associated severe damages. Sex hormone factor might be associated with the incidence of the disease. The coexistence of auto-immune rheumatic disease may be partially explained by the interplay of environmental factors with gene that predispose to autoimmunity. Our study suggests that genetic factors do have a role in the development and expression of overlap of systemic lupus. The use of intravenous Immunoglobulin may be efficacious in macrophagic activation syndrome.

IF-31
RHEUMATOID ARTHRITIS WITH SYSTEMIC LUPUS ERITHEMATOUS: THE CHARACTERISTICS OF RHUPUS SYNDROME

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Objectives: Describing the characteristics of seven patients with Rhupus syndrome with their clinical presentation and the treatment they received in these patients evaluated in the outpatient of our hospital.

Material and method: We present the clinical, serological and radiographic characteristics of seven patients with Rhupus syndrome in where we described the clinical presentation and the treatment they received in these patients evaluated in the outpatient. The diagnosis of SLE and RA were performed following the clinical criteria of the American College of Rheumatology (ACR). The patients should meet the clinical criteria of one of these diseases and later meet the criteria of the other.

Results: We included seven patients, three women and four men with a median age of 58.14 years at the time of diagnosis. Six patients (85.7%) debuted with RA, meeting the criteria for SLE after. The seventh patient (14.3%), first met the criteria for SLE and then, when he had rheumatoid nodules, met the criteria for RA, having characteristic radiographic lesions in hands, even the rheumatoid factor and the anti-citrullinated protein antibodies (anti-CCP) were all negative. The rheumatoid factor was positive in 6 patients and the anti-CCP in 5 of them. All the patients had ANA and Anti-DNA antibodies positive. In three patients, the anti-Ro and anti-La antibodies were positive. Four patients showed leukopenia while three of them had thrombopenia. All patients presented with arthralgia and/or arthritis. The rheumatoid arthritis was the only extra articular manifestation of RA. Two patients had skin manifestations which are typical of SLE. None of the patients had renal or neurological impairment. The following treatment used was: Dolquine (4 patients), methotrexate (4 patients), leflunomide (2 patients), azathioprine (1 patient) and adalimumab (1 patient), 5 of them had associated glucocorticoid treatment.

Discussion: The simultaneous manifestation of SLE and RA is very rare but it has been documented and defined as SRh. Panush et al have reported an incidence of 0.09% among 7,000 newly diagnosed patients in one year. Aside from clinical manifestations and the serologic evidence of SLE, for patients with SRh, there is also radiographic evidence of erosive arthropathy. Among patients diagnosed with SRh in our outpatient clinic, articular manifestations are the most frequent. There were just a few severe articular manifestations associated with the underlying disease: only one patient had rheumatoid nodules as an extra articular manifestation of RA and neither had renal or neurologic impairment from SLE. The finding of elevated values of anti-CPP antibodies in some patients with SRh supports the idea that for some patients this overlap syndrome may represent a true concordance of the two diseases rather than an atypical arthropathy of SLE. Almost without exception, the treatment is directed to the particular clinical manifestation and is not predicated with a definitive diagnosis. Many of the patients with SRh, develop the initial manifestations of RA or SLE and after that they develop the other disease over the course of years of evolution. In our study, the finding of positive anti-dsDNA and anti-CPP is evidence that supports the concordance of SLE and RA.

Conclusions: There are patients with findings that are suggestive of RA or SLE, but do not fulfill ACR criteria for this diagnosis. A few of them will ultimately fulfill diagnostic criteria for another systemic rheumatic disease, when this occurs; the patient has an overlap syndrome which is called Rhupus syndrome.

IF-32
FOLLOW-UP OF PRIMARY IMMUNODEFICIENCIES IN AUTOIMMUNE DISEASES UNIT

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Objectives: Development and follow-up of patients with primary immunodeficiencies, in a tertiary hospital, with reference to clinical presentation, progress and follow-up after treatment.

Material and method: All primary immunodeficiency patients (PI) followed in the autoimmune disease unit since 2007 were included. All of them had a well documented (PI) according to clinical manifestations and biological data, and criteria the European Society of Immunodeficiencies, excluding partial immunoglobulin deficits. A database with demographic criteria: age, sex, clinical impairment, biological data, treatment, has been designed.

Results: Seventeen PI patients were included, 65% women, mean age 36 years old (range 17 to 75 years), 16 with B cell immunodefi-

cience (BCID) and only one with T cell immunity deficience (TCID). In BCID: 2 cases with X-linked agammaglobulinemia (XLAGM), and 14 with common variable immunodeficiencie (CVID). In BCID the initial forms of presentation have been: respiratory infection 10 (62.5%); major sinusitis and multiple ear infections in 8 patients (50%), 6 of them have simultaneous respiratory and sinusitis and ear infections. One of the patients suffers S. pneumoniae parameningeal infection, and 3 multiple pneumococcal bacteremic. One patient has a bacteremic genitourinary infection. Associated autoimmune disorders were observed in 5 patients (31%): autoimmune hematologic disorders in 3 (all thrombocytopenia), 1 chronic diarrhea celiac like disease and 1 an optic neuritis. Non-Hodgkin´s lymphoma was observed in 1 patient. All patients with BCID have been treated with immunoglobulins (IVIg) in relation to the decline of B cell memory (MB cell) (igD- CD27+), lower Ig levels and diminished response to pneumococcal and tetanus vaccination. Adverse reactions to IV ig infusions were observed in 3 cases (18.75%), and all of them minor (flushing and fever in 2 cases and headache in one fever. Mean level of Ig G at diagnosis were 2.58 g/L (range 0.33 to 4.7 g/L). Mean levels after IVig were 8.37 g/L, (range 5.64 g/L to 14.1 g/L). Mean B cell memory (IgD- CD27 +) at diagnosis was 1.86% (0 to 9%). In CIVD lower percentage of MB cell were associated with all type of clinical manifestations. The Bruton disease presents the lower percentages of B cell memory. Delayed diagnosis has been: 417 weeks mean, maximum: 1,440 weeks and minimum: 0 Follow-up mean: 218 weeks, maximum: 1,440 weeks. All patients B cell IP continue IVig infusions without disease progression.

Discussion: The usual form of (IP) presentation It's has been CIVD: heterogenous group disorders characterized by decreased immunoglobulin production. This syndrome describes a group of immunological disorders of unknown etiology with impaired antibody response. Clinical manifestation is recurrent sinopulmonary infections by encapsulated bacteria, autoimmmune diseases, lymphoproloferative, granulomatous or neoplastic disorders and intestinal dysfunction. The onset of symptoms was usually 25 years.

Conclusions: CIVD is the most common IP in our unit of autoimmune disease. Their varied forms of presentation which include involvement of: respiratory, hematological, autoimmune, gastrointestinal and granulomatous disease, appear to be associated with lower MB cells count. Repetiton bacteremic pneumococcal alert to the presence of BCID. Replacement IVIg is specific treatment CIVD in cases with lower MB cells count, has changed the outcome of disease. Adverse reactions to IVig infusions were minor. No patient has needed to withdraw the infusions. Avoid delayed diagnosis may be prevented complications linked to MB cell count.

IF-33
SWEET´S SYNDROME: RETROSPECTIVE STUDY OF CLINICAL AND HISTOLOGIC FEATURES OF 11 CASES

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Objectives: Sweet's syndrome (SS) is an uncommon disorder characterized by the abrupt onset of erythematous papules and plaques that histologically exhibit diffuse dermal neutrophilic infiltration and edema. There are usually associated constitutional symptoms such as fever, neutrophilia, elevated serum inflammatory markers, and associated disorders. The aim of this study was to describe the clinical, epidemiological profile the aetiopathogenic, developmental and therapeutic features of patients diagnosed with Sweet's syndrome in our Hospital, and to compare their findings with those published in the literature.

Material and method: Retrospective descriptive study, collecting data from patients histologically diagnosed with Sweet's syndrome in the Hospital San Jorge (Huesca, Spain), between 2005 and 2012. All patients met the diagnostic criteria. Collected variables included: age, gender, morphology and distribution of lesions, associated symptoms and disorders, therapy) and histologic features, as well as laboratory abnormalities.

Results: 11 patients were included, 5 women and 6 men, with a mean age of 68 years. All of them meet the 2 major criteria, 6 patients 3 minor and 5 patients only 2 of them. 6 patients (53%) associated malignancy (4 solid tumors, being the more frequent breast cancer, and hematological malignancy 2 of them), 3 patients presented bacteremia (E. coli and S. aureus germs), 2 thyroid gland diseases, and 1 AIDS who was on antiretroviral treatment. ESR and C-reactive protein were increased in 100% of the cases. Leukocytosis was present in 7 patients, 4 of them with neutrophilia. 7 patients (63%) presented anemia, 3 thrombocytosis and 2 thrombocytopenia. 7 patients had systemic involvement; 2 of them of the bone marrow, 2 liver enzymes elevation, 1 renal insufficiency and in 2 lymphadenopathy. 100% of the cases were treated with oral corticosteroids with good response, even though most of them had been previously treated with antibiotics or 4 anti-inflammatory drugs. 2 patients with hematological malignancy received treatment of hydroxyurea. The average length of the treatment was 3 months and recurrent only occurred in one case.

Discussion: Sweet's syndrome is an uncommon but not rare disease that occurs predominantly in middle-aged women. In our study mean age of 68 years and 65% were man. Although most cases are idiopathic, the possibility of para-neoplastic process or associated systemic diseases must be carefully excluded. Special attention must be paid to screening of haemoproliferative processes. In our study, 35% of patients presented bacteremia, 53% associated malignancy, 25% thyroid gland diseases, and 10% AIDS who was on antiretroviral treatment. The treatment of choice is systemic corticosteroids, with such a good response that constitutes a diagnostic criterion. In our study, 100% of the cases were treated with oral corticosteroids with good response. Otherwise, the antibiotic treatment are ineffective but in our study while only in 35% of cases presented bacteremia, to 85% of patients take in antibiotic.

Conclusions: Sweet's syndrome usually is idiopathic. Nevertheless, and extensive examination is mandatory in order to rule out associated malignancy or systemic disease.

IF-34
BILATERAL UVEITIS AS MANIFESTATION OF SYSTEMIC SCLEROSIS. REPORT OF THREE CLINICAL CASES

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Objectives: To describe three cases of systemic sclerosis with bilateral anterior uveitis.

Material and method: To review medical histories and current literature.

Results: Case 1: a 34 year-old woman with no previous medical history, was referred to our Multidisciplinary Consultory of Uveitis due to several flares of bilateral anterior granulomatous uveitis during 3 years. The patient presented a constitutional syndrome associated with diffuse arthralgia and Raynaud's phenomenon. Screening for infectious and autoimmune disease was negative. Thoracic radiography showed a pattern of bilateral basal fibrosis.

Chest CT scan was requested and demonstrated lung nodules without lymphadenopathy. A bronchoscopy was performed and the biopsy confirmed the existence of patched alveolar septal fibrosis. The patient presented skin lesions similar to livedo reticularis in her thighs years ago. Skin biopsy showed reticular dermis fibrosis, capillary and perivascular mild chronic inflammation, suggestive of scleroderma or morphea. Early scleroderma pattern was found in capillaroscopy study. Treatment with pulses of cyclophosphamide was initiated with clear improvement of uveitis. The patient was diagnosed of systemic sclerosis with pulmonary involvement (pulmonary fibrosis), ocular affection (uveitis), skin disease and Raynaud´s phenomenon. Case 2: A 37 year-old male patient was referred to Internal Medicine consultory because of recent onset of Raynaud's phenomenon. The patient had a previous history of recurrent bilateral anterior uveitis 6 years ago and idiopathic chronic interstitial lung disease. Laboratory analysis detected positive antinuclear antibodies with anticentromere pattern. Capillaroscopy study showed giant capillaries and capillary tortuosities. The diagnosed of systemic sclerosis with Raynaud´s phenomenon, dermal, ocular and pulmonary affection was established. Case 3: A 63 year-old woman with CREST syndrome diagnosed in 1997 with posterior systemic involvement with severe cutaneous arterial destructive form, esophageal involvement, pulmonary hypertension and fibrosis was referred to Multydisciplinary Uveitis Unit due to blurred vision, ophthalmological examination revealed bilateral anterior uveitis associated with macular edema. The patient was in treatment with methotrexate and intravenous pulses of infliximab with lack of response. Treatment with intravenous pulses of abatacept was initiated, achieving complete remission of ocular involvement. Bilateral anterior uveitis and macular edema secondary to severe CREST syndrome with systemic involvement was diagnosed.

Discussion: Systemic sclerosis (SSc) is a multisystemic connective tissue disease of unknown etiology that predominantly affects skin, musculoskeletal system, gastrointestinal tract, lungs and kidney. Ocular involvement has been documented and some ocular manifestation in SSc are well known such as keratoconjunctivitis sicca and eye lid changes. Ocular manifestations such as conjuntivitis, episcleritis, glaucoma, xeroltafmia, keratitis, strabismus and retinal abnormalities are described. The association between uveitis and SSc is unusual but due to the low prevalence of this association, few cases are reported, consist only in sigle case reports or small number of case series. In two of our 3 cases, uveitis was the onset symptom of SSc and in the other case, uveitis started years after the SSc diagnosis.

Conclusions: In some cases, inflammatory eye disease, uveitis, could be the onset manifestation of SSc and could be developed after years of diagnosis. Therefore a promptly diagnosis of SSc-related uveitis may set up a properly treatment of this disease.

IF-35
CRYOGLOBULINEMIA ASSOCIATED WITH AUTOIMMUNE SYSTEMIC DISEASE

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Objectives: Cryoglobulinemia (CM) is a rare disease and almost 90% of cases have a known predispossing condition: viral infections, lymphoproliferatives syndromes, autoimmune systemic diseases (ASD)... Sjögren syndrome is the most frequent ASD associated with CM (typically type III). Our objective is to analyze all cases of CM associated with ASD diagnosed in the Internal Medicine Service of several hospitals of Madrid and to compare them with those not associated.

Material and method: Retrospective descriptive multicenter study of cases of CM diagnosed in the Internal Medicine Service of several hospitals of Madrid since 1994 to 2012. We compare two groups: CM associated with ASD (A) and CM not associated to ASD (B). χ^2 was used for cathegorial variables (or exact Fisher test when indicated) and U-Mann-Whitney or t-student for continuous variables. p significance was < 0.05 for all statistical analysis, using the SPSS 18.0 version.

Results: We diagnosed 59 cases of CM, 19 of them with ASD (4 Sjögren, 2 AR, 2 sarcoidosis, 2 SLE, 1 systemic sclerosis and 8 unespecified vasculitis). CM type II was the most frequent in both groups (11 in group A and 20 in B). Only 3 cases of CM type III were detected in group A. Patients with ASD were mostly women and a high percentage of them (68.42%) were associated with HCV infection. HBV infection was infrequent (5.2%) and up to 26% of cases had malignances. The most common presentation was asthenia and malaise without fever in both groups. Dry syndrome, arthralgyas, myalgias and palpable purpura were most frequent in group A ($p < 0.05$). Raynaud phenomenon was detected in 15.7% of patients of group A and in 7.5% of group B. Urine sediment alterations and renal failure were infrequent in our series (15.7% in A and 22.5% in B), as well as the SNC involvement. There were no differences in the presence of sensorio-motor polyneuropathy between the two groups (36.8% in A and 22.5% in B) (p 0.24). No case of alveolar hemorrhage was detected. The most common findings were high levels of rheumatoid factor and C4 in both groups, with low C3 patients with ASD and normal levels in those without ASD ($p > 0.05$). The 100% of patients with ASD were treated with corticoids: some of them with bolus of methylprednisolone but most of them with oral steroids ($p < 0.05$). Cyclophosphamide was rarely used, but when used, it was in the bolus form and not for maintenance. Some patients received immunoglobulins or plasmapheresis sessions. Only 9 of the total series were treated with rituximab with a similar distribution in both groups and despite the high association with HCV infection, antiviral drugs were rarely used. Four patients with ASD developed non-Hodgkin lymphoma B (two of them with Sjögren's syndrome). Outcome was generally favorable although complete remission with negative cryoglobulins was not achieved in all cases.

Conclusions: Although the CM type III is typically associated with autoimmune diseases, we have not confirmed this association in this series. Sjögren's syndrome is the most related ASD (excluding vasculitis) and association with HCV infection is common: both conditions coexist in many patients. The presentation, clinical course and therapeutic approach do not differ from other types of CM but it has significantly more arthralgyas, myalgias, dry syndrome and palpable purpura. Oral steroids are more used in patients with CM associated with ASD, probably because of the existence of a known ASD before the onset of symptoms.

IF-37
ADULT ONSET STILL´S DISEASE: REVIEW OF 14 CASES OF A SINGLE CENTER

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Objectives: Adult onset Still´s disease (AOSD) is a rare systemic inflammatory disorder of unknown etiology that is responsible for

significant cases of fever of unknown origin. The clinical presentation of AOSD is heterogeneous, and the spectrum of differential diagnoses is wide. The diagnosis is a challenge and there is no specific test. The annual incidence of ASD is estimated to be 0.16 cases per 100,000 persons and only few reports of the disease had been made in our country. To describe the clinical characteristics, treatment and outcome of a series of patients with AOSD in an academic hospital in Spain.

Material and method: Between 1994 and 2012, only 14 patients were found with AOSD in the Autoimmune Disease Unit and the hospital discharge databases. All of them fulfilled the Yamaguchi criteria giving significant value to the increased serum ferritin. Specific clinical features, laboratory tests, treatment and outcome were retrospectively recorded.

Results: All patients were diagnosed in the Internal Medicine department. The mean age was 31 years (16-51 years). Five were male (35.7%) and 9 female (64.3%). Clinical manifestations were similar to those previously described. The follow-up was 8 years (1-19 years). Two patients died, one by a heart attack and another from pneumonia. All of them were treated with high-dose corticosteroids (0.5-1 mg/kg/day) and immunosuppressive drugs usually methotrexate or azathioprine. There were recurrences in 50% of cases. Three patients were treated with anti-TNF biological therapy. A reactive hemophagocytic syndrome (most serious complication of the disease) was diagnosed in 3 patients.

Discussion: In our series the most relevant information for the diagnosis was the fever and the laboratory hyperferritinemia. We used routinely high-dose corticosteroids and immunossupressive, and biological agents were required only in three patients (21%) because disease recurrence.

Conclusions: Our patients had relatively severe disease with 14% mortality. Nevertheless the prognosis is good although there is loss in the patient follow-up mainly by referral to health centers (almost 50%). Hyperferritinemia levels are not part of Yamaguchi criteria and therefore are not included in the diagnosis of disease. However, in our entire series of patients had elevated ferritin important to diagnosis and monitoring possible to determine the response to treatment. Thus, their inclusion in a future diagnostic criteria of the disease would be important.

IF-39
EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS IN PATIENTS WITH GUILLAIN BARRÉ SYNDROME

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Objectives: To determine the incidence and analyse the clinical and epidemiological characteristics of patients who develop Guillain Barré syndrome (GBS).

Material and method: We performed a retrospective study of the hospital discharges in with diagnosis include GBS, between January 1, 2002 and April 30, 2012. The following variables were recorded: age, sex, date of admission and season, average stay, existence of previous triggering, clinical features and variants of GBS.

Results: Were included 29 patients, 16 women (55.2%), mean age 52 ± 18 years (age ranged 13-79). The incidence was 2.2/100,000, being the summer season when more cases were diagnosed (41.4%). The average stay was 32 ± 36 days. In most patients (62%) did not detect a previous triggering, while a few days before 24% presented gastrointestinal disorders and 13.8% respiratory infection. The most common clinical presentation was lower extremities weakness, arreflexia (62%), upper limb weakness (17.2%), tetraparesis (13.8%) and oculomotor abnormalities (6.9%) with areflexia in 62% of cases. Finally, 48.3% patients developed tetraparesis and 10.3% oropharyngeal weakness. Paresthesias appeared in 65.5% of cases, pain in 20.7%, and dysautonomia (tachycardia, hypertension and constipation) were documented in 20.7% of cases. Of the 29 cases, acute motor axonal neuropathy was presented in 13 patients, motor and sensory axonal neuropathy in 10, demyelinating polyneuropathy 5 cases (17%) and 1 case Miller Fisher syndrome.

Discussion: Guillain Barré syndrome is defined as an ascending and progressive muscular weakness with arreflexia, which progresses over a few days to a few weeks. It can occur at any age and in both genders. In our series had an incidence of 2.2/100,000, slightly higher than what is stated in the literature. It showed a higher incidence in the summer months. Only 31% of cases had a previous infectious process. The most common manifestations were the weakness in lower limbs and paresthesias followed by weakness in upper limbs. Another remarkable date in our study was the high number of cases of acute motor axonal neuropathy and axonal neuropathy acute motor and sensory, in contrast with previous reports in which the most common variant was the demyelinating.

Conclusions: GBS occurred more frequently in the summer months and concomitant with previous reports, the most common presentation was lower limb weakness and paresthesias. However, in our series acute motor axonal neuropathy was the most frequent variant of GBS.

IF-40
TEST PERFORMANCE OF ULTRASONOGRAPHY FOR GIANT-CELL ARTERITIS IN A TERTIARY HOSPITAL OF CASTILLA-LA MANCHA (SPAIN)

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Objectives: 1. To determinate the diagnostic performance of color duplex ultrasonography (CDU) for giant-cell arteritis (GCA) in our hospital. 2. To analyze the epidemiologic and clinic characteristics of patients with GCA. 3. To identify the best set of predictors for a positive temporal artery biopsy, and 4. To identify which patients could be avoided the temporal artery (TA) biopsy.

Material and method: Retrospective study of patients with suspected GCA, from 2008 to 2011 in the University Hospital Complex of Albacete. The following data were collected: demographic features, fever, new headache, polymyalgia rheumatic, amaurosis, jaw claudication, hemoglobin, erythrocyte sedimentation rate, C-reactive protein, corticoid administration, TA biopsy, final diagnosis and treatment. Diagnostic performance of CDU was determinate for the halo sign, stenosis, or occlusion. CDU results were compared with TA biopsy findings and the American College of Rheumatology (ACR) research criteria for diagnosing ACG and weight sensitivity and specificity of CDU were calculated. Statistical analysis was performed with the SPSS software package.

Results: 72 patients with suspected GCA were studied. TA biopsy was realized in 26 of them, with positive result for GCA in 15 patients. In patients with TA biopsy the mean age was 74.2 years, a female predominance was observed (73.1%) and new headache was the most frequent clinical finding (61.5%). The 44 patients without TA biopsy had an alternative diagnosis or the condition resolved without corticoid administration. In this group of patients, CDU was normal in 93.2% of cases. When CDU was compared with TA biopsy, the sensitivity was 86.6% ($p < 0.05$), the specificity was 63.3%, the positive predictive value (PPV) was 76.5, the negative predictive value (NPV) was 77.8, the positive likelihood-ratio (LR+) was 2.38 and the negative likelihood-ratio (LR-) was 0.20. When

CDU was compared with ACR classification criteria for GCA results were: sensitivity 83.3%, specificity 75%, PPV 88.2, NPV 66, LR+3.33, LR-0.22. In patients with bilateral CDU findings the specificity was 90.9% compared with TA biopsy and 87.5% compared with ACR criteria. 80.8% of patients with TA biopsy showed 4 or more clinical data for ACG.

Discussion: Our series show higher sensitivity and lower specificity than other series published. However there are considerable heterogeneity between the studies, attributable to different ultrasound techniques, operator experience, and the range in numbers of patients recruited to each study. Our centre has a high-quality duplex machine and neurologist-vascular with relevant practical experience, which would explain the high sensitivity. Although our study is retrospective, it is interesting that in the group of patients without TA biopsy, 93.2% had normal CDU. In these patients, with low clinical suspicion of GCA, CDU was useful to avoid TA biopsy. In addition, the high sensitivity showed by this technique make it a very interesting screening study of GCA.

Conclusions: In our setting is verified the CDU utility in the diagnosis of GCA. In patients with low suspected of GCA and CDU negative, and in patients with high suspicion of GCA and positive CDU probably TA biopsy is unnecessary. We must be quick in the diagnosis and treatment of GCA about potential complications if not treated early, so the CDU can be very useful in this regard. CDU should be included in the guidelines as initial study of all patients with suspected of GCA.

IF-41
AORTITIS REVEALED BY 18F-FDG PET/CT SCAN AS CAUSE OF FEVER OF UNKNOWN ORIGIN: TWO CASES

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Objectives: To describe two patients with fever of unknown origin due to aortitis demonstrated by fluorine-18-fluorodeoxyglucose (18F-FDG) positron emission tomography (PET)/CT scan.

Material and method: Review of the clinical records of two patients with aortitis diagnosed in the Service of Internal Medicine of Cruces University Hospital (Barakaldo, Spain).

Results: Case 1: a 65-years-old white female with no antecedents was referred with fever of more than three months duration, weight loss, polyarthralgia and back pain. No temporal artery abnormalities were present and physical examination was unremarkable. Laboratory tests revealed increased erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) and moderate normocytic anemia; cultures were negative and immunological and thyroid function tests were normal. Mantoux test was negative. Echocardiography showed no signs of infectious endocarditis. Chest and abdominal CT-scan and magnetic resonance imaging (MRI) of the spine revealed no findings. Bone marrow biopsy, immunophenotype and cultures were non-diagnostic, and temporal artery biopsy was negative. 18F-FDG PET/CT imaging showed active inflammation of the aorta and its main branches. The patient was treated with IV pulse methyl-prednisolone and low-dose oral prednisone and methotrexate, with progressive improvement. Case 2: A 72-years-old white female with antecedents of essential hypertension and non-obstructive nephrolithiasis presented with fever of four weeks duration, weight loss and lower back pain. Physical examination was unremarkable and no temporal artery abnormalities were present. Laboratory tests revealed increased ESR and CRP, and mild normocytic anemia; blood cultures were negative and immunological and thyroid function tests were normal. Mantoux test was negative. Echocardiography ruled out infectious endocarditis, and spinal MRI showed no findings other than degenerative lumbar changes. Uncomplicated right nephrolithiasis and unspecific aortic wall changes were found on chest and abdominal CT-scan. 18F-FDG PET/CT imaging revealed active aortitis. Fever disappeared after IV pulse methyl-prednisolone, and progressive improvement was achieved with low-dose oral prednisone and methotrexate.

Discussion: The clinical presentation of large-vessel vasculitis varies across a wide spectrum of symptoms and clinical signs, ranging from ischemic manifestations to pyrexia of unknown origin and constitutional or unspecific (i.e. back pain) symptoms, as in the two patients we report. Demonstrating appropriate inflammatory vessel wall involvement is the standard diagnostic criterion, but biopsy is almost impossible in most cases and diagnosis and follow-up are usually supported on noninvasive diagnostic imaging techniques. Recent publications have highlighted the use of 18F-FDG PET/CT scan as a moderately sensitive, noninvasive diagnostic test for large-vessel vasculitis, particularly in those cases in which first-line imaging techniques (i.e. CT-scan or MRI) are non-diagnostic. In our two cases, the initial comprehensive study was negative, and 18F-FDG PET/CT scan revealed the presence of aortitis as the cause of fever of unknown origin.

Conclusions: 18F-FDG PET/CT scan is a useful noninvasive diagnostic test for diagnosis of large-vessel vasculitis, particularly in those cases with unspecific symptoms and/or in which first-line imaging techniques are non-diagnostic.

IF-42
A DESCRIPTIVE STUDY OF PULMONARY SARCOIDOSIS: RADIOGRAPHIC STAGE AND EXTRAPULMONARY MANIFESTATIONS

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Objectives: Pulmonary affectation is over 90 percent of patients with sarcoidosis and the stage is based on the chest radiograph. The aim of this study was to describe radiographic stage and extrapulmonary manifestations of the 21 pulmonary sarcoidosis cases presented in our department.

Material and method: We performed a descriptive study of 21 pulmonary sarcoidosis cases admitted to the Internal Medicine Department of Complejo Hospitalario de Navarra-B of Pamplona from January 2001 to May 2012.

Results: In our 21 thoracic sarcoidosis cases, 11 (52.38%) were females and 10 (47.62%) were males. The mean age was 53.28 years old (19-85). Radiographic stages distribution was as follows: 10 (47.62%) cases showed a radiologic stage I, and the other 7 (33.33%) expressed stage II, 3 cases (14.28%) showed radiologic stage III and only 1 (4.76%) showed radiologic stage IV. As regards the organs involved, 6 (28.57%) had thoracic affectation as unique manifestation and surprisingly, 15 (71.42%) had also extra thoracic manifestations and 13 of them had stage I or II. The Lofgren syndrome was the most frequent extra thoracic manifestation (5 cases, 23.80%) followed by muscle and nervous system affection (3 cases each, 14.28% each). Cutaneous involvement was presented in 2 (9.52%) and one of those also had liver affectation. Exocrine glandular affectation was seen in 1 (4.76%) case and only one case had liver involvement (4.76%). The serum angiotensin converting enzyme (ACE) level could only be determined in 19 (90.47%) of the 21 cases. The mean ACE level was 52.36 U/L, being the serum ACE reference levels in our laboratory 8-52 U/L. The lowest ACE level was 7 U/L and the highest 147 U/L being the media level 44 U/L. We founded that 9 cases (47.36%) showed an ACE level beyond 52 U/L and among these ones, 77.77% had a radiologic stage I or II. Furthermore 10 cases (52.64%) showed a normal ACE level (under

52) and among these 80% had a radiologic stage I or II. Calcium levels were measured in all our patients and only one of them was founded to be beyond the higher calcium reference level (10.9 mg/dL). After reviewing the medical histories we founded that the tuberculin skin test was only accomplished in 7 (33.33%) of 21 cases, resulting positive 5 (71.42%) of them. As regards the treatment, 18 (85.72%) of them received corticosteroids and 3 (14.28%) of them received nonsteroidal antiinflammatory drugs (NSAIDs). During the study period, 5 patients died. They were aged 72-88 years old and 3 out 5 (60%) showed radiologic stage III or IV. Three of them died due to infectious complication (2 pneumonia and 1 tuberculosis), other patient after thyroid operation and the other one because of colon cancer.

Discussion: Though sarcoidosis usually presents in patients between 10 and 40 years of age, in our study the mean age was higher, probably because our population is characteristically older. As it is described in related literature, sarcoidosis affects females slightly more frequently than males and radiographic stages I and II are much more frequent than radiographic stages III and IV. The most frequent clinical manifestations were thoracic features associating extrathoracic symptoms at the same time. Those patients generally presented mild stages (I and II). Being Lofgren syndrome the most frequent extra thoracic manifestation. An unexpected founding was that though eye lesions are one of the usual abnormalities, none of our cases had eye involvement. Finally we founded that higher levels of ACE didn't correlate with more severe radiographic stages. Sarcoidosis cases that died during our study period were characteristically older and exhibited a more serious radiographic stage. The main cause was respiratory infection.

Conclusions: In patients with pulmonary sarcoidosis, clinicians should rule out other possible extra thoracic manifestations in early radiologic stages.

IF-43
OMALIZUMAB FOR THE TREATMENT OF THE ASTHMATIC COMPONENT OF CHURG-STRAUSS

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Objectives: To analyze the characteristics and development of two patients diagnosed as having Churg-Strauss, who received treatment with omalizumab to control the asthma.

Material and method: We analyze the clinical evolution for 29 and 11 months respectively from two patients diagnosed with Churg-Strauss and treated with omalizumab to the persistence of respiratory symptoms.

Results: Patient 1: 67 years-old man diagnosed in 2008, with a good development of vasculitis after receiving immunosupressive treatment, although he had persistence of asthma, high IgE (1,500 Ku/l) and eosinophilia (18%-1490/µl), so he needed treatment with high doses of corticosteroids. In December 2009 a treatment based on the administration of 150 mg/sc of omalizumab every 15 days was started, getting an excellent response, with no data of vasculitis up to now. The asthma was controlled without corticosteroid treatment, marked decrease of IgE (271KU/l) and with no eosinophilia. Patient 2: 47 years-old woman diagnosed in 2006, who had multiples acute asthmatic exacerbations, needing high corticosteroids doses and salbutamol. In May 2011 a treatment with omalizumab 150 mg/sc every month was started, getting a drastic decrease of the asthmatic crisis, and allowing a reduction of the corticosteroids doses. She is currently stable, with no data of vasculitis activity and IgE 149 KU/l (previous of 471 KU/l) and normal eosinophils.

Discussion: Omalizumab is an anti-IgE recombinant humanized monoclonal antibody, that inhibits the degranulation of mast cells and basophils, and reduces the tisular and circulating eosinophils by inhibiting its apoptosis. It is indicated for the treatment of severe persistent allergic asthma with high levels of IgE. There is a lot of controversy about Churg-Strauss. Some authors propose it to be used for the asthmatic component and the refractory forms without response to the conventional treatment, since the IgE might participate in the mechanisms of peripheral eosinophilia in this kind of patients. Other authors state that it can trigger vasculitis outbreaks by direct effect in the development of Churg-Strauss, or exposing "frustrated forms" of the disease in asthmatic patients, in which treatment with corticosteroids is reduced to initiate omalizumab. None of our patients showed vasculitis data, but they had an improvement of the asthmatic component after a medium monitoring of 29 and 11 months respectively.

Conclusions: although there is controversy about the use of omalizumab in Churg-Stauss, we think that, in selected cases with severe cortico-dependent asthma, it may be a good therapeutic alternative.

IF-44
RETROSPECTIVE STUDY OF ADULT-ONSET STILL´S DISEASE: OUR EXPERIENCE

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Objectives: The present study analyzed clinical and laboratory features, treatment and prognosis of patients with adult-onset Still´s disease (AOSD).

Material and method: Retrospective study of patients who had been diagnosed of AOSD from 1997 to 2011 in the city of Badajoz (Spain). All of patients fulfilled the diagnostic criteria of AOSD proposed for Yamaguchi.

Results: A total of 7 patients with a diagnosis of AOSD who had been followed-up in our department were retrospectively evaluated. Of 7 patients, 5 (71.4%) were male. The mean age of patients was 37.0 year ± 23.7 at the time of diagnosis (range 12-74). The characteristics of clinical manifestations were found as follows: fever was present in all patients; typical evanescent maculopapular rash could be seen in 5 (71.4%) patients; arthritis 6 (85.7%); sore throat 4 (57.1%), lymphadenopathy just 1 (14.3), hepathomegaly 2 (28.6%), splenomegaly 1 (14.3%), pleural 28.6% and pericardial effusion 14.3%. The mean values of laboratory findings were: leukocytosis with a mean value of 17,414.29 ± 8,608.02 was present in 85.7% of the cases; Four of patients had high ferritin values (> 500 ng/ml) and the mean value of ferritin was 12,216 ng/ml; C reactive protein level of 230.5 mg/dl; erythrocyte sedimentation rate of 75.8 mm/h; elevation of aspartate aminotransferase (GOT) was present in 4 (57.1%) patients and alanine aminotransferase (GPT) was elevated in 5 (71.4%) patients. Negative results of tests for rheumatoid factor (RF), antinuclear body (ANA) and blood cultures were seen in all of patients were seen. Corticosteroids (usually prednisone) were given as initial treatment after diagnosis in 3 (42.9%) patients. Just one patient received nonsteroidal antiinflamatory drug (NSAIDs) as a single medication. One patient received azatrioprine and other patient MTX in addition to corticosteroids during the follow-up.

Discussion: Adult-onset Still´s disease is s a rare systemic inflammatory disorder. Clinical features include fevers, sore throat, a salmon-colored rash typically found on the trunk, arthritis or arthralgias, lymphadenopathy and a number nonespecific hematologic findings like leukocytosis or liver abnormalities. Has

been associated with markedly elevated serum ferritin, so in a patient with compatible symptoms should lead to suspicion of AOSD in the absence of a bacterial or viral infection. A few sets of criteria have been proposed to classify AOSD, those of Yamaguchi being the most commonly used like in our study. The clinical course can be variable, since complete resolution until persistently active disease. The principal options for treatment are NSAIDs, glucocorticoids, biologic agents and disease-modifying antirheumatic drugs. Our results are similar to those described in the literature. Cause for hospital admission of all patients was fever and was not always easy to reach a diagnosis, requiring a large number of tests. Many patients required two or three consultation or admissions to be diagnosed. We have just included patients who have been followed by Internal Medicine department. The evolution of each of the patients has been variable and only two patients had severe outbreaks of the disease, mainly characterized by joint pain who responded well to intensive treatment.

Conclusions: Because no pathognomonic test could be used for this disease, diagnosis of AOSD depends of clinical features, laboratory findings and exclusion other causes. For this, it must be considered like cause of fever of unknown origin.

IF-46
RISK FACTORS AND PREVALENCE OF VASCULAR THROMBOSIS IN PATIENTS DIAGNOSED WITH OBSTETRIC ANTIPHOSPHOLIPID SYNDROME

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Objectives: The antiphospholipid syndrome (APS) is a procoagulant state due to the presence of antiphospholipid antibodies which may manifest clinically by thrombotic disease, or by obstetric morbidity (fetal death, miscarriages, pre-eclampsia and prematurity), with usual therapeutic approach different in each case. The incidence of vascular thrombosis in patients with obstetric APS is considered very low, although the data available in the literature are scarce. Antithrombotic prophylaxis in this group of patients who present with obstetric APS may prevent the occurrence of vascular thrombotic events. The aim of our study was to investigate the prevalence and possible risk factors for the development of vascular thrombosis in patients with obstetric APS.

Material and method: We studied 20 pregnant women diagnosed with obstetric APS (according to the classification criteria of Sydney, 2006). The clinical variables investigated were: the criteria responsible for the diagnosis of obstetric APS, the type of thrombotic event (deep vein thrombosis, myocardial infarction, stroke), family history of premature cardiovascular and/or autoimmune disease, the presence of classical cardiovascular risk factors and treatment of patients. We determined the following analytical parameters in blood: lipid levels (total and fractionated cholesterol, triglycerides), glucose, urea and creatinine, fibrinogen, lipoprotein a (LPa), plasma viscosity, uric acid, CRP (uCRP), antiphospholipid antibody pattern (AAF) and markers of endothelial injury (circulating endothelial cells (CEC), interleukin 6 (IL-6), von Willebrand factor, vascular endothelial growth factor (VEGF) and tissue factor). For the study we used SPSS version 19.0.0. Continuous variables are expressed as mean and standard deviation and categorical variables as percentages. The comparison between dichotomous variables was tested by the chi square statistical method and the quantitative with the t test.

Results: The mean age of patients studied was 38.5 (SD 6.1) years. With regard to obstetric pathology: 51.7% had presented previous misscarriages, fetal deaths 31%, 6.9% pre-eclampsia and 7% prematurity. Thrombotic events were present in 30% of patients. The prevalence of classic cardiovascular risk factors was: smoking 35%, obesity 20%, dyslipidemia 15%, hypertension 10% and diabetes mellitus 5%. Only in 2 cases there were a family history of early cardiovascular disease and in 3 cases of autoimmune disease. As for emerging cardiovascular risk factors, there were no significant differences between the group of patients with or without thrombosis. Regarding the AAF there was no predominant pattern in the study group. Markers of endothelial damage showed no statistically significant differences between patients with and without thrombosis. Only 55% of patients (11) receiving treatment with anti-aggregating and/or anti-coagulants at the time of the interview.

Discussion: According to our results, up to 30% of patients with obstetric APS associated with vascular thrombosis. The prevalence of reversible cardiovascular risk factors could potentially increase the risk of thrombosis due to antiphospholipid antibodies, therefore it could raise the need for prophylactic antithrombotic treatment in this patient group. We found no statistically significant differences in terms of markers of endothelial damage, as the expression of inflammatory vascular involvement in APS obstetrician.

Conclusions: 1. This is a group of patients, women of childbearing age diagnosed with obstetric APS, being the most frequent pathology miscarriages. 2. Thrombosis was present in 30% of the cases. 3. The classic cardiovascular risk factors should be investigated routinely in these patients, adapting the treatment of cardiovascular risk level. 4. Almost half the patients received no antithrombotic treatment. 5. No significant relationship between markers of endothelial damage and the occurrence of thrombotic events, failing to complete the study with a larger volume of patients soon.

IF-48
HENOCH-SCHOLEIN PURPURA IN ADULTS. A REVIEW OF 16 CASES ADMITTED IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Henoch-Scholein purpura (HSP) is a small size vessel vasculitis characterized by purpura, abdominal pain and arthritis that typically affects children but can also occur in adults, usually with a worse prognosis and higher incidence of renal disease. The objective of this review is to analyze adult patients who were admitted to the Internal Medicine Department with a HSP diagnosis during a five year period (2007-2011).

Material and method: Medical records from patients older than 15 years admitted with HSP diagnosis at our department from January 2007 to December 2011 were reviewed. HSP diagnosis was made according to the 2006 International Consensus Conference Diagnostic Criteria. Renal involvement was defined as the presence of hematuria or/and proteinuria. We studied: sex, age, previous episodes of HSP, co-morbidities, antecedent infection, clinical manifestations, laboratory findings (hemoglobin, leucocytes, platelet count, creatinine, proteinuria, hematuria, ESR), skin and/or renal biopsies, treatment and outcomes.

Results: Sixteen patients were diagnosed of HSP with ages ranging from 16 to 85 (mean 49), half of them older than 55 years old. 12 were male. Four patients had a previous HSP episode with a mean of 10.7 years between them. Seven patients, all older than 55 years old, had any co-morbidity. Twelve patients had an

antecedent infection (7 respiratory, 3 tonsillar, 2 urinary). Skin biopsy was made in 14 patients showing leukocytoclastic vasculitis with IgA deposit in 11. Nine patients, 6 younger than 55 years/old, had abdominal pain. Eight patients, 6 younger than 55 years, had articular manifestations. ESR was elevated (> 30 mm/h) in 11 patients, 8 patients had leukocytosis (> 10,000 cells/mm), 2 had thrombocytosis (> 400,000 cells/mm^3) and one had anemia (Hb < 12 g/dL). Five patients, 3 older than 55 yrs old, had renal involvement with nephrotic proteinuria in two and renal failure (creat > 1.2 mg/dl) in 3. Renal biopsy was made in two patients showing Ig A deposit. 13 patients received steroids, one ibuprophen, one azathioprine, and two patients didn't receive any treatment.

Discussion: This series of adult patients with HSP show a greater prevalence in males as previously reported. A small percentage had a previous episode of HSP with a long mean time interval between them. Leukocytoclastic vasculitis was confirmed by skin biopsy in all patients with a first episode and most of them showed Ig A deposit. We found a greater frequency of antecedent infection, most of them respiratory tract infection. Gastrointestinal and musculoskeletal manifestations were more common in younger patients. ESR was elevated in most of the patients. Renal involvement was less common than in other series due perhaps to the low number of patients, a greater number of younger patients and admission in a general internal medicine, non-nephrological department. As other series, nearly all patients received corticosteroids and only one needed immunosuppression.

Conclusions: 1. HSP should be considered in every adult patient with suspected cutaneous vasculitis, even in the very elderly. 2. Gastrointestinal and articular manifestations occur most often in younger patients and renal involvement is more common in older adults.

IF- 49
SPONDYLOARTHRITIS - A CASUISTIC OF AN IMMUNO-MEDIATED DISEASES UNIT

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Objectives: This retrospective study was performed to characterize the population with the diagnosis of spondyloarthritis in an auto-immune diseases unit created about three years ago, concerning to demographic characteristics, disease manifestation and treatment.

Material and method: It's a retrospective analysis of clinical records at UDIMS – Systemic Immuno-Mediated Diseases Unit, from July 2009 to March 2012. We included patients with the diagnosis of spondyloarthritis (SpA), namely ankylosing spondylitis (SA), enteropathic arthropathy, seronegative spondyloarthritis and psoriatic arthritis.

Results: We currently follow 58 patients, 31 males and 27 females, with a mean age of 48 years and a mean disease duration of 8.3 years. The diagnosis is as follows: 39 (67.3%) with ankylosing spondylitis, 2 (3.4%) with enteropathic arthropathy, 7 (12%) with seronegative spondyloarthritis and 10 (17%) with psoriatic arthritis. The positivity for HLA B27 is 58%. 29 patients have exclusive axial involvement; 6 patients have exclusive peripheral involvement, with the remaining patients having mixed axial and peripheral involvement. The most frequent extra-articular manifestation is uveitis, especially anterior granulomatous uveitis (15% of the patients). 55% of patients are being treated with TNF-alpha blockades: 13 with etanercept, 12 with adalimumab, 5 with golimumab and 2 with infliximab. 12 patients needed to switch between biologic drugs, mainly because of cutaneous drug reactions (5), uveitis (1) and 6 because secondary failure. One patient had a central venous thrombosis, possibly related with golimumab, and another had tuberculosis reactivation and pulmonary vasculitis possibly related with adalimumab. 87% of the patients under biologic therapies have absolute changes in BASDAI score superior to 2 points and/or relative changes in BASDAI superior to 50%. The patients with no biologic drugs (26 patients, 45%) are currently under exclusively non steroid anti-inflammatory (NSAI) drugs (15), sulfasalazine (4) and sulfasalazine with hydroxicloroquine (3). There are 4 patients with psoriatic arthritis with exclusive peripheral involvement are under methotrexate and prednisone.

Discussion: The most common spondyloarthritis amongst our patients is ankylosing spondylitis, followed by psoriatic arthritis. Our patients have predominantly axial involvement and the most common extra-articular manifestation is uveitis. Only two severe adverse events were registered. More than a half of the patients are treated with biologic therapies with a good profile of efficacy and safety.

Conclusions: Concerning to the prevalence of positivity to HLA B27, our study showed a lower prevalence than what's describe in literature: 58% in our study versus 70-75% in literature. The rate of severe adverse events under biologic therapy was very low (2 patients, 6%). The prevalence of each diagnosis (SA, enteropathic arthropathy, seronegative spondyloarthritis and psoriatic arthritis), the incidence of extra-articular manifestations and the percentage of patients treated with TNF-alpha blocker therapies (55%). Of those, 87.5% achieves criteria of disease remission, also as it's described.

IF-50
ATYPICAL CLINICAL MANIFESTATIONS OF GIANT CELL ARTERITIS: ON CALL EXPERIENCE FROM A TERTIARY HOSPITAL

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Objectives: The typical manifestations of giant cell arteritis are familiar in everyday clinical practice. However, the challenge lies in recognizing atypical cases that lack the more specific manifestations or reflect vasculitis in less frequently involved territories. Among atypical clinical manifestations, dry cough has been recently reported. However, literature data are scarce and contain mostly sporadic and single case reports.

Material and method: The objective of this study was to determine the frequency of dry cough in patients with giant cell arteritis. Clinical data were collected from 18 patients with giant cell arteritis. Relationships between dry cough and other clinical manifestations or biological data were analyzed. Dry cough of recent appearance was found at initial presentation of giant cell arteritis in 3 patients (16.6%). In 1 case, dry cough was isolated. The patients sought attention because of chronic dry cough associated with fever of unknown origin. In all cases, dry cough was associated with typical clinical manifestations of giant cell arteritis. Significant correlations were found between inflammatory biomarkers and presence of dry cough. The mean CRP was 153.8 ± 35.1 mg/L in patients with dry cough and 94 ± 22.2 mg/L in patients without dry cough ($p = 0.013$).

Results: Diagnosis of giant cell arteritis should always be considered in elderly patients with an unexplained elevation of inflammatory markers and chronic dry cough. In our study, dry cough in giant cell arteritis was not correlated with other clinical manifestations of this vasculitis, including pulmonary manifestations, but was significantly correlated with inflammatory biomarkers.

IF-51
PULMONARY HYPERTENSION IN THE GENERAL HOSPITAL. TEN YEARS OF OUR WORK

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Objectives: Pulmonary hypertension is a difficult condition. It is present in various diseases and it is confers a worse prognosis and severity.

Material and method: A retrospective study of patients admittied in the Systemic Autoimmune Diseases and Pulmonary Hypertension Unit with diagnosis of pulmonary hypertension from January 2001 until December 2010. We analized the main clinical and echocardiographic variables.

Results: 21 patients were objectived with pulmonary hypertension: 52.58 ± 14.6 years, 71.4% female/28.6% male. The following variables were studied: etiology (38.1% idiopathic, chronic thromboembolism 30%, 14.3% collagen diseases, congenital diseases 9.5%, LVH 4.8% and others etiologies 4.8%); functional class at the time of diagnosis (4.8% I-NYHA, 33.3% II-NYHA, 52.4% III- NYHA, 9.5% IV-NYHA) and the performance status at the time of the study (11.7% I-NYHA, 29.4% II-NYHA, 47.05% III-NYHA, 11.7% IV-NYHA). The average distance covered in the walk test at diagnosis was 405 m and the average at the end of the study was 323 m. The right heart catheterization was performed in all patients, which were positive vasoreactivity in 23.8%. The mean mPAP 46.36 mmHg, CI 2.5 and RPT l/min/m^2 874.27 Dynas. The mean PSP echocardiographic diagnosis was 97.9 mmHg and 85.4 mmHg monitoring. The treatment used was: 15% calcium antagonists, 57.1% bosentan, 61.9% sildenafil, 14.3% inhaled iloprost, 14.3% treprostinil and 9.5% epoprostenol. The mortality rate was 28.6% over 10 years.

Conclusions: Although advances in treatment have greatly improved the survival of these patients but the pulmonary hypertension remains a serious disease that causes high mortality.

IF-52
UTILITY POCKET ULTRASOUND (VSCAN) IN THE ASSESSMENT OF PULMONARY HYPERTENSION

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Objectives: To assess the utility of pocket echocardiography and Color Doppler in pulmonary hypertension and to compare the findings with conventional echocardiography.

Material and method: A prospective study of 15 patients admitted in general hospital with diagnosis of pulmonary hypertension whom were subjected to pocket echocardiography (VSCAN) and to compare the results with conventional echocardiography. We study the validity of V. Scan GE. We analized right atrial (RA) and ventricular (RV) size, right ventricular hypertrophy (HRV), valvular dysfunction (VD), tricuspid regurg area (TRA), displacement of the tricuspid annulus (DTA, paradoxical movement of interventricular septum (PMIVS) and distention inferior vena cava (DIVC). The difference between these techniques (ultrasound pocket versus conventional ultrasound) was performed by assessing the level of agreement and we used the Cohen's Kappa (K) and the Pearson correlation coefficient (PC).

Results: In a sample of 15 patients we found: 10 female (86.7%)/5 male (13.3%) and age 40.2 ± 12.2 years. The levels of agreement were: PMIVS: Kappa 0.72 ($p < 0.05$); DIVC: Kappa 0.80 ($p < 0.05$); HRV: Kappa 0.62 ($p < 0.05$); RA size: Pearson 0.82 ($p < 0.01$); TRA: Pearson 0.73 ($p < 0.05$); DTA: Pearson 0.76 ($p < 0.05$).

Conclusions: The pocket ultrasound may be useful as a screening test in pulmonary hypertension. It can detect indirect echocardiographic signs suggestive of pulmonary hypertension. In connection with conventional echocardiography, ultrasound pocket has limitations, but it can help improve early diagnosis of PAH.

IF-53
TREATMENT OF AUTOIMMUNE HEMATOLOGICAL DISEASES WITH RITUXIMAB

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Objectives: Rituximab (RTX) is a humanized chimerical monoclonal antibody specific for CD-20 antigen. CD-20 antigen is a suitable target for immunotherapy since their antibody binding antiCD-20 causes a rapid depletion of B lymphocytes. RTX could be an effective therapeutic option in patients with autoimmune haematological disease refractory to other treatments it also could avoid splenectomy. The objective of this study is to evaluate RTX efficacy and tolerance in patients with autoimmune haemolytic anemia (AHA) and immune thrombocytopenic purpura (ITP) refractory to conventional treatments in a series of patients with long follow-up.

Material and method: All adult patients (> 16-years-old) treated with RTX for autoimmune cytopenias in our hospital from January 2004 to June 2011 were included in the study. Medical history, previous treatments, clinical evolution and analytical results were collected. The RTX regimen was 375 mg/m^2 every 1 week (MABTHERA®, Roche) except one patient who received 1 g/15 days (two doses).

Results: During this period of time 37 patients were included (54% women) with a median age of 63 years. All patients had received more than three treatments (including splenectomy in 8) before RTX. ITP was diagnosed in 25 patients receiving RTX after failed first-line treatments with therapeutic response in 16 of them (64%) and an average free-disease period of 23 months. In the 5 patients (20%) with ITP plus a related autoimmune disease the RTX response was 100%. RTX was administered to 11 patients with refractory AHA with a complete response to RT in 7 patients (64%) with a mean free-disease time of 25 months. 4 patients had AHA plus another autoimmune disease, showing all of them response to RTX and good control of other non-hematological manifestations. Two of AHA patients had been diagnosed with autoimmune hepatitis with complete biochemical resolution after RTX. One patient with simultaneous ITP/AHA had complete and permanent response. Overall, the administration of RTX was well tolerated, however, 4 patients had non-serious infections and other 4 patients (10%) developed tumors during the follow-up period (mean 12 months).

Discussion: The reported efficacy of rituximab in other autoimmune disorders provided a rationale for investigating rituximab therapy in AHA and ITP with encouraging results. The mechanism of action of RTX in autoimmune diseases should be further investigated, it has been postulated that this is unlikely to be the result of a drop in the autoantibody level and that a mechanism of Fc-receptor saturation of reticuloendothelial cells by opsonized CD-20 cells may be involver to justify the initial phase of response. In our study the response rate in both entities was 64% similar to other studies including five or more patients reveals that RTX is effective in treating AHA and ITP with an overall response rate ranging from 40% to 100%. Patients with other autoimmune diseases showed a 100% response. RTX may provide an effective

alternative to splenectomy and/or chemotherapy. In our experience RTX was very well tolerated and no significant infusion-related or late events were registered.

Conclusions: RTX was an effective treatment in patients with autoimmune haematologic diseases refractory to first-line treatments. The response was excellent in the context of autoimmune diseases. This study has detected some patients with malignancies after treatment.

IF-54
COMMON VARIABLE IMMUNODEFICIENCY CLASSIFICATION BASED ON IMPAIRED B CELL MEMORY DIFFERENTIATION WITH CLINICAL OUTCOME

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Objectives: Follow-up patients with common variable immunodeficiency (CVID) in a tertiary hospital with reference a classification based on impaired B cell memory and correlation with clinical aspects.

Material and method: 47 patients (25 females, 22 males) ranging 19-81 years (50+-14.3) have been included in the study. All of them had well documented CIID according international criteria (European Society of Immunodeficiencies)). Most of them were treated monthly with immunoglobulins infusions (IVIG) and were free of any serious infection when tested. Patients were grouped according to the quantification of peripheral MB cell (Piqueras criteria) in MB0: 16 patients, with almost no memory B cells, MB1: 15 patients, with defective switched memory (IgD- CD27 +) but normal unswitched memory (IgD+ CD27 +) B cells and MB2: 16 patients, with normal memory B cells. The groups were tested by χ^2. Finally we used clinical data base with demographic data.

Results: Laboratory data at diagnosis: MB0 group median level of IgG = 4.7g/L, B cells = 10%, IgD+CD27- = 95%, IgD+. CD27+ = 2.5%, IgD-CD27+ = 0.4%. MB1 group: median level of IgG = 4.55 g/L, B cells = 13%, IgD+ CD27- = 68%, IgD+ CD 27+ = 24%, IgD-CD27+ = 5%. MB2 group: median level of IgG = 5.1g/L, B cell = 8%, IgD+CD27- = 16%, IgD+CD27+ = 16%, IgD-CD27+ = 19% Clinical data: MB0 group respiratory infection in 68.75%, splenomegaly in 25%, cytopenias in 18.75%, granulomatous in 12.5%, gastrointestinal in 25% and osteoarticular in 6.25%. MB1 group respiratory infection in 60%, splenomegaly in 13.3%, granulomatous in 0%, gastrointestinal in 13.3% and osteoarticular in 13.3%. MB2 group respiratory infection in 25%, splenomegaly in 6.25%, cytopenia in 6.25%, granulomatous in 6.25%, osteoarticular in 0%. Group MB0 have statistically significant less unswitched and switched memory B cells and level serum immunoglobulin than the other groups. Moreover, group MB0 don't respond to pneumococcal vaccination. All patients included are alive.

Discussion: CVID is a heterogeneous syndrome characterized by hipogammmaglobulinemia and recurrent respiratory infections, often lead structural damage in the form of bronquiectasis. MB cells are responsible for a rapid efficacies onset of production antibodies. MB cells can be subdivided in three subsets according Piqueras classification: MB0, MB1, MB2. Clinical studies related MB defects to an increased incidence of splenomegaly, lymphoid proliferation, autoimmune cytopenias, respiratory, intestinal and granulomatous disease.

Conclusions: The main finding of this study is that patients with CVID with the most severe alteration in MB count presented the most severe clinical phenotype with higher prevalence in: respiratory, gastrointestinal, granulomatous, autoimmune disease. In group MB0 the patients don't respond to toxoid tetanic and anti-pneumococcal vaccination.

IF-55
CAPILLAROSCOPIC FINDINGS AND PATTERNS IN 3 SPANISH HOSPITALS

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Objectives: To describe capillaroscopic findings in patients studied in three Internal Medicine Services in Spain. To find out differences in the capillaroscopic classification between the three centers.

Material and method: Databases of capillaroscopic studies performed in Hospital Universitario Miguel Servet de Zaragoza (May'08 to May'12), Hospital Universitario La Fe de Valencia (Oct'03 to May'12) and Complejo Hospitalario de Navarra (Jan'10 to May'11) were reviewed. Repeated capillaroscopies were excluded. Data included were age, gender, Raynaud's phenomenom, service of origin, ramified capillaries, dilatation, disorganization, microhaemorrages, capillary loss and giant capillaries. Capillaroscopic pattern was grouped in inespecific changes, connective tissue

Table 1 (IF-55). Capillaroscopic findings (all data in%)

	Total	HUMS Zaragoza	H. La Fe Valencia	CHN Navarra
Ramifications	43.2%	58.6%	32.5%	Not available
Dilated capillaries	35.3%	37.8%	21.5%	91.8%
Giant capillaries	33.2%	40.9%	15.0%	82.7%
Capillary disorganisation	21.5%	29.6%	18.9%	Not available
Microhaemorrhages	39.3%	43.2%	67.3%	29.5%
Capillary loss	24.6%	22.2%	23.1%	51.8%

Table 2 (IF-55). Capillaroscopic patterns in each centre (all data in%)

	Inespecific	Connective tissue pattern	Scleroderma pattern
HUMS Zaragoza	46.7%	28.5%	22.1%
H. La Fe Valencia	72.3%	13.4%	11.4%
CHN Pamplona	27,6%	11.2%	60.2%

disease pattern and scleroderma pattern. The later group was classified into early, active or late pattern. Chi square test was used to compare qualitative variables and one way ANOVA to compare quantitative variables.

Results: 1,298 capillaroscopic studies were included, 655 from Zaragoza, 545 from Valencia and 98 from Pamplona. Mean age of patients was 46.8 years, and 1037 (79.9%) were women. 1046 patients (80.6%) referred Raynaud's phenomenon. 916 (70.6%) patients came from the own Internal Medicine services, 182 (14.0%) from Rheumatology services and 112 (8.6%) from Vascular Surgery services. The main capillaroscopic findings are shown in table one. The classification of the capillaroscopic pattern in each centre is shown in table two.

Discussion: Differences observed between the 3 centres can be explained by the previous selection of patients who underwent capillaroscopic exploration.

Conclusions: We describe different frequencies of capillaroscopic patterns in the 3 centres. Scleroderma pattern was more likely to be found in Navarra's patients, connective tissue disease pattern in Zaragoza's patients and unspecific changes in Valencia's patients.

IF-59
CROHN'S DISEASE SUSCEPTIBILITY: TLR9 AND IL23R

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Objectives: Crohn's disease (CD) shows a complex aetiology with environmental factors and multiple genes involved. Nowadays, up to 70 CD susceptibility loci have been described; however, a high proportion of disease heritability remains unexplained. Genetic interactions could contribute to elucidate part of that missing heritability. Epistasis between polymorphisms in TLR9 and variants in CARD15 and IL23R has been described as modulating CD susceptibility in the German population. We aimed at replicating those interactions in our independent CD samples from the Spanish population, and at corroborating the statistically significant interactions in patients showing ulcerative colitis (UC), the other clinical form of inflammatory bowel disease.

Material and method: Nine single nucleotide polymorphisms (SNPs) located in the CARD15 (rs2066844 = R702W, rs2066845 = G908R and rs2066847 = 1007fsinsC), IL23R (rs1004819, rs7517847 and rs11209026) and TLR9 (rs352162, rs187084 and rs5743836) genes were genotyped in 416 CD patients and 547 unrelated healthy controls. Some of those SNPs were also genotyped for replication purposes in an additional set of 122 CD and 452 UC patients and in 307 controls. Genetic interactions were evaluated using chi-square tests in TLR9/CARD15 and TLR9/IL23R stratified tables. This study conforms to the principles of the Declaration of Helsinki of the World Medical Association (www.wma.net). A written informed consent was obtained from all the participants in the study.

Results: A significant interaction between the polymorphism rs352162 in TLR9 and rs7517847 located in IL23R was observed and replicated in CD patients, but not in controls or UC patients. Carriage of the minor allele of IL23R rs7517847 confers a strong protective effect towards CD development when present in TLR9 rs352162_CC homozygous individuals: p = 0.0003 OR = 0.44 95%CI 0.27-0.71. Genetic interactions were not observed between TLR9 and CARD15 variants.

Conclusions: We confirmed the presence of epistasis between TLR9 and IL23R polymorphisms affecting CD susceptibility in the Spanish population.

IF-60
THE NATURAL HISTORY OF CROHN'S DISEASE IS MODIFIES FOR THE THIOPURINE IMMUNOSUPPRESSANTS

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Objectives: To determine whether the use of thiopurine immunosuppressants (IS) decreases CD intestinal surgery rates.

Material and method: Retrospective medical records of CD patients diagnosed at a single center in Madrid, Spain, between 2005 and 2009. The primary outcome was the occurrence of non-perianal CD-related surgery defined as the need for bowel resection or drainage of non-perianal abscesses. We compared patients treated for at least 6 months with the appropriate dose of IS (2.5 mg/kg azathioprine and 1.5 mg/kg mercaptopurine) with those not receiving IS (or biological) until intestinal surgery or the end of follow-up. Multivariate analysis (Cox proportional hazard model) was performed with age at diagnosis, sex, location, behavior, perianal disease, smoking or duration of immunosuppressive therapy to surgery (or during follow-up without surgery) as covariates.

Results: We included 300 CD patients (49% women), the mean age at diagnosis was of 33.47 ± 15.2 years and classified depending of the location: 39.9% ileal, 16.6% colonic, ileocolonic 27% and 16.6% upper gastrointestinal tract. Behavior at diagnosis: 62.3% inflammatory pattern, 17.3% stenotic and 19% penetrating. Twenty per cent of the cohort had perianal disease at diagnosis and 38.8% were smokers at diagnosis. Overall the mean follow-up time was 12 ± 8.7 years. Forty one per cent had IS treatment at any time of the follow-up, with a mean duration of treatment of 6.3 ± 4.6 years. In the final regression model, the use of IS was associated with a reduced need for surgery during follow-up [0.658 (HR) (95%CI 0.525 to 0.825)], this effect increases with the duration of treatment.

Conclusions: The use of IS reduces the risk of no perianal first surgery in CD patients, this effect increases with the duration of treatment.

IF-61
DESCRIPTIVE STUDY IN A SERIES OF PATIENTS WITH IDIOPATHIC AND SECONDARY PULMONARY HYPERTENSION IN AN INTERNAL MEDICINE CONSULTING ROOM

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Objectives: The PAH has been defined as the increase in the pulmonary pressure (PPD) middle higher or equal to 25 mmHg in rest calculated by right cardiac catheterism (CCD). Pulmonary pressure of 25 mmHg is the cardinal measure. This value has been used to select the patients at all the controlled tests of random distribution and registers of PAH, The recent evaluation of the information has showed that the normal limit of 20 mmHg. The importance of a normal PAP between 21 and 24 mmHg is not clear, that is why a major research in epidemiologic studies is required. We do not have a certainly definition for pulmonary hypertension during exercise calculated by right pulmonary catheterism. In the pathology of primary or idiopathic PAH ("Clinical guidelines practices of diagnostic and therapeutic procedures in pulmonary hypertension", Clinical Cardiology April 2011), the principal aim of

our studies we have found principally pathological injuries that affect the distal pulmonary arteries (< 500 um of diameter). They are characterized by abnormal cells growth of different layer of vessels, fibrotic changes of intima layer artery, cell proliferation on adventicial layer with important vascular inflammatory infiltration. Usually the pulmonary veins are not affected. The lowest prevalence of the PAH and the PAHI was 15 cases and 5.9 per million of adult population respectively. The lowest incidence estimated was 2.4 cases per million of adult population per year. The estimate prevalence was 15 cases per million of adult population per year. The PAHI correspond to sporadic diseases without any family procedents or know cause factor.

Material and method: Descriptive study made in a series of 9 patients followed at the Internal Medicine consulting room in Obispo Polanco Hospital in Teruel (Spain) between 2007-2011 (during 5 years) with Pulmonary Arterial Hypertension (PAH) with Pulmonary Systolic Pressure (PSP) determined by transesophageal echocardiogram (EET). The 55.5% of group (5 patients) of group of 9 patients of initial study are men with ages around 45-76 years old, and 44.5% of group (4 patients) are women with ages around 40-83 years old. The 88.8% of group (8 patients), were treated with Bosentan and the 11.1% of group (1 patient) was treated with two drugs, Bosentan and Sildenafilo. The 44.5% of study (4 patients) showed a severe PAH and the 55.5% (5 patients) moderate PAH with PSP calculated with ETT and associating with Cor Pulmonale and right heart failure controlled with medical treatment. One patient death at the end of five years of study secondary failure with the highest PSP found of 110 mmHg. The total number of patients the 66.6% (6 patients) were diagnosed of associated autoimmune disease (scleroderma was the mostly frequency), 2 patients (22.3% of study) were associated with thromboembolic pulmonary disease and 1 patient (11.1% of study) was associated with deficient C protein.

Results: Scleroderma (Autoimmune Disease) is the mostly associated disease in our group with pulmonary hypertension. Severe pulmonary hypertension associated the higher number of complications in the study and failure of medical treatment (right heart failure and cor pulmonale). The patient who died had the most elevated pulmonary hypertension of 110 mmHg.

Discussion: There is an association between pulmonary hypertension, autoimmune disease, failure drug treatment and morbidity-mortality?

Conclusions: The patient with higher pulmonary hypertension associated most complications, failure medical treatment and elevated morbidity.

IF-63
SARCOIDOSIS IN PATIENTS DIAGNOSED IN INTERNAL MEDICINE AND PULMONOLOGY

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Objectives: Sarcoidosis is a multisystem disease of unknown etiology, characterized histologically by the presence of noncaseating granulomas in involve organs. The objective is to describe clinical, diagnostic procedures and therapies used in patients with sarcoidosis diagnosed in Internal Medicine and Pulmonology in our hospital.

Material and method: We retrospectively analyzed discharge reports and reviews in consultation of patients with the diagnosis of sarcoidosis in our department or in the respiratory medicine department in the period between 2003 and 2011. For data analysis, we used SPSS version 15.0.

Results: We studied 117 patients, 54 belonged to the Internal Medicine and 63 to Pulmonology. The median age of patients at diagnosis was 42 years. 60% were women. At diagnosis, 30% were asymptomatic while 31% had respiratory symptoms (cough and dyspnea). The rest of patients had extrapulmonary symptoms. Radiological pattern more objectified in our patients was I with 35% followed by II with 30%. Twelve of thirty three asymptomatic patients had a chest radiography in stage I. The diagnostic methods more frequently used were mediastinoscopy (28.8%) and transbronchial biopsy (20.2%). A total of 60 patients had high serum ACE while 20 of them weren´t analyzed and 37 were negative. Among the extrapulmonary manifestations, 23% had cutaneous manifestations, 11.4% had Lofgren syndrome, and 6% neurosarcoidosis. Only 2 patients presented uveoparotidea fever and 1 patient presented cardiac involvement. Up to 53.5% of patients were not treated, while 42.1% received therapy with steroids and 4.4% received combined therapy of steroids and immunosuppressants. The progress of these therapies was favorable in 89.3% of patients, opposed to the cured (16%) by clinical and radiological stability.

Discussion: The clinical manifestations of sarcoidosis may involve a single organ or be systemic. Within the systemic symptoms, one can experience fever, fatigue, malaise and weight loss. Pulmonary sarcoidosis may cause dyspnea and dry cough. Regarding extrapulmonary manifestations, the symptoms include: uveitis, scleritis, erythema nodosum, sicca syndrome, skin lesions and peripheral limphadenopathy. The diagnosis of sarcoidosis is based on clinical suspicion and confirmed by histological demonstration of noncaseating granulomas, excluding other diseases. Once diagnosed, treatment is not always required and the prognosis depends on the organic damage of this disease.

Conclusions: The median age at diagnosis was 42 years. There was a large number of asymptomatic patients at the diagnosis, many of them having stage I radiological pattern. ACE was positive in 50% of patients. The diagnostic method more frequently used was the mediastinoscopy and more than 50% of patients did not require treatment at the diagnosis. These findings are similar to the data that are described in the literature.

IF-64
TEACHING AND TRAINING DEVELOPED BY SYSTEMIC AUTOIMMUNE DISEASES UNITS (UEAS) IN DEPARTMENTS OF INTERNAL MEDICINE IN SPAIN

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Objectives: To evaluate the structure and activities related to teaching and training of systemic autoimmune diseases units (UEAS) integrated in Spanish Internal Medicine Departments.

Material and method: Systematic evaluation using a questionnaire containing the main data on patient care, teaching and research in systemic autoimmune diseases (SAD). The questionnaire was sent to all members of the Spanish Group of Autoimmune Diseases (GEAS-SEMI) through the mailing group list in February 2012. UEAS was defined as a functional healthcare structure in which specific circuits have been established to provide targeted care to patients with SAD.

Results: By March 31, 2012, information had been collected from 56 UEAS integrated in Spanish Internal Medicine Departments. About 90% of UEAS conducted monographic hospital sessions centered on SAD, with a frequency varying from weekly to monthly. Half the UEAS have organized specific meetings to provide updates

on knowledge of SAD and 75% have participated in meetings discussing SAD in the last 3 years. About 70% of UEAS have residents: the total number of residents trained in one year was 374, which is roughly equivalent to a mean of 10 residents trained per year per centre. Seventy per cent (254) of residents were doing internal rotations: 117 (46%) were specializing in Internal Medicine and 137 (54%) in other specialties. In addition, an annual mean of 120 of external residents from other hospitals were taught by 13 UEAS (33%), of which 106 (88%) came from Spanish and 14 (12%) from foreign hospitals. 36% (20) of UEAS have postgraduate (Ph.D) teaching capacities, with doctoral theses related to SAD being carried out in 13 (23%) UEAS. Of the 56 UEAS, 37 (66%) have one or more of staff who are university professors, coming from 27 universities. More than half of the 190 UEAS internists (53%) are university professors: 51 are associate professors, 18 teaching assistants, 12 lecturers/full professors and 6 other types of teacher.

Conclusions: Nearly 400 medical residents per year receive training in Spanish UEAS, including SAD residents and those from other specialties, and residents from the same hospital and from other hospitals. This teaching activity, together with undergraduate and postgraduate teaching activities, is sufficient to formulate proposals on a definition of accreditation levels of Spanish UEAS in order to assess their capacity to teach the subject of SAD in Internal Medicine.

IF-67
IMMUNOMODULATORY EFFECT OF ATORVASTATIN IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Objectives: In the field of SLE there is a growing interest in developing personalized immunosuppressive therapy to improve the individual response and to minimize adverse effects of treatment. Recently has been proposed that statins besides their cholesterol-lowering effects, have immunomodulatory properties that might reduce disease activity, which would make them potential candidates for the treatment of SLE. The Cylex Immune Cell Function Assay (Immuknow®) designed to measure the net state of immune function and it was recently approved by the U.S. Food and Drug Administration (FDA) to help monitor the immune status of solid-organ transplant patients for better individualization of therapy. This assay measures the activity of CD4+ T cells by assessing the intracellular concentration of adenosine triphosphate (ATP) from circulating CD4+ T cells after in vitro stimulation with phytohemagglutinin (PHA). However its utility in the management of autoimmunity disease patients remains to be determined. The aim of the study was to evaluate whether immune function, determined by the Immuknow® assay after a therapeutic intervention with statins in SLE patients.

Material and method: Nineteen female patients with SLE (≥ 4 ACR 1997 criteria) with a mean age of 44 years (range 27-64) were enrolled. None of the patients had received statin therapy previously to the beginning of the study and in any case the treatments they are taking for their disease have been changed over the time of the study. The patients received atorvastatin (20 mg/day) during eight weeks. Data collected in the basal and in the end of treatment visit, includes demographics, clinical parameters, SLE activity (assessed by SLEDAI) and inflammatory markers. Immune responses were measured using the Immuknow® assay according to the manufactured instructions. Concentrations of soluble inflammatory and anti-inflammatory cytokines (IL-2, IL-6, TNF, IL-4, IL-10), adhesion molecule (sVCAM-1) and growth factors (VEGF, endothelin-1) were assessed in patient serum by ELISA.

Results: It was observed that an 8 weeks treatment with atorvastatin, significantly decreased the concentration of ATP after PHA in vitro stimulation in SLE patients (228.30 ± 103.63 ng/ml pre-statin vs 164.95 ± 61.14 ng/ml post-statin; p = 0.012). We also found a decrease in disease activity, patients after atorvastatin intake showed a lower SLEDAI score (1.68 ± 2.06 SLEDAI pre-statin vs 1.58 ± 1.92 SLEDAI post-statin) and an increase in complement C3 level (104.74 ± 25.92 mg/dl pre-statin vs 108.41 ± 23.47 mg/dl post-statin), although these differences were not statistically significant. In the same way, analyzing soluble inflammatory markers, we observed a significant decrease in the VEGF concentration (318.22 ± 267.13 pg/ml pre-statin vs 282.25 ± 236.67 pg/ml post-statin; p = 0.015).

Discussion: Statins are widely used to treat patients with hyperlipidemia. However, accumulating evidence suggests that statins possess a variety of biological properties including immunomodulatory and anti-inflammatory effects. We reported that administration of 20mg/day of atorvastatin for 8 weeks significantly reduced in vitro ATP production, suggesting that SLE patient cellular immune status measured by Immuknow® assay is immunomodulated. In the same way, our results suggest that the effect of atorvastatin in SLE patients may involve inhibition of VEGF secretion and an attenuation of lupus activity.

Conclusions: The results of this preliminary work evidence the immunosuppresive effect of atrovastatin in patients with SLE, but further studies would be necessary.

IF-68
RESEARCH IMPACT OF SYSTEMIC AUTOIMMUNE DISEASE UNITS (UEAS) IN SPANISH INTERNAL MEDICINE DEPARTMENTS: DEVELOPMENT OF RESEARCH PROJECTS, SCIENTIFIC PUBLICATIONS AND NATIONAL REGISTERS OF PATIENTS WITH AUTOIMMUNE DISEASES

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Objectives: To evaluate the research activity carried out by Systemic Autoimmune Disease Units (UEAS) integrated in Spanish Internal Medicine Departments.

Material and method: Systematic evaluation using a questionnaire containing the main data on patient care, teaching and research in systemic autoimmune diseases (SAD). The questionnaire was sent to all members of the Spanish Group of Autoimmune Diseases (GEAS-SEMI) through the mailing group list in February 2012. UEAS was defined as a functional healthcare structure in which specific circuits have been established to provide targeted care to patients with SAD.

Results: By March 31, 2012, information had been collected from 56 UEAS integrated in Spanish Internal Medicine Departments. Sixty-six per cent of UEAS have initiated or are developing SAD-related research projects in the last 3 years, with a total of 131 lines of research (76 from the Unit itself and 55 (42%) in collaboration with other specialties). These research lines have generated 233 research projects, including 71 (30%) competitive projects (44 within-Unit and 27 in collaboration with other centers), 81 (35%) clinical trials and 81 (35%) non-competitive projects. UEAS research activity has generated 748 scientific publications in the last 3 years; 586 (78%) in international journals and 162 (22%) in Spanish journals. These publications have been generated by 33 (59%) out of the 56 UEAS. The UEAS have also generated 72 book chapters, 43 clinical guidelines and 53 clinical protocols in SAD. 70% of the UEAS have participated actively in collecting patients for inclusion in GEAS

patient registries (lupus, scleroderma, ANCA-vasculitides, Sjögren syndrome, Behçet disease, antisynthetase syndrome, biological therapies, capillaroscopy and vascular risk in SAD).

Conclusions: Bringing together the management of patients with SAD in dedicated UEAS in Internal Medicine Departments has enabled the creation of knowledge and skills centers with proven experience whose research output is strong and highly competitive.

IF-69
MESENTERIC PANNICULITIS: HETEROGENEOUS AND INFREQUENT

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Objectives: To look through an infrequent pathology, which has been associated to many other pathologies, with different kind of appearances and evolution, which is also important to be considered in the differential diagnosis of the abdominal pain.

Material and method: Three cases of mesenteric panniculitis. Case 1: male, 48 years old. History of Raynaud's phenomenon developed during 7 years with negative capillaroscopy and immunological studies. Admitted because of a diffuse abdominal pain of a few hours of evolution, fever is added later. Abdominal CT with abdominal fat infiltration compatible with mesenteric panniculitis, no changes on the rest. Good evolution with symptomatic treatment. Case 2: male, 59 years old. Without notable history. Admitted because of a long standing fever and lumbar pain, during the admission at the hospital he is diagnosed as aortic endocarditis from streptococcus bovis, severe aortic failure, colonic tubular adenoma and probable spondylodiscitis. Favorable evolution with an antibiotic treatment. 15 days after the admission he shows diffuse and acute abdominal pain. All the examinations are negative except for the abdominal TC which shows mesenteric panniculitis. Negative immunological test. Very good improvement with a corticoid treatment. Case 3: male, 68 years old. History of a recent laparoscopic cholecystectomy after an episode of cholecystitis and a tubular colonic adenoma. Admitted because of an acute epigastralgia, TC shows mesenteric panniculitis. Immunological tests and neoplasia hides negatives. Take a treatment with corticoids and the recovery of the symptoms.

Results: Three cases of mesenteric panniculitis without a clear etiologic association, one case with Raynaud phenomenon history and the other two had showed recent pathological process. Two of them needed corticoid treatment. Favorable evolution in all of them.

Discussion: The mesenteric panniculitis is defined as an aseptic and specific inflammation of the mesenteric fat. It's associated to a multiple concomitant etiologies or pathologies, it can be an independent pathological entity, or even a casual and asymptomatic finding after the abdominal TC. It is described regarding neoplasias, lymphoma, sarcoidosis, medicines, abdominal traumatism,previous abdominal surgery, fibrosing inflammatory diseases or systemic diseases. It is predominant in males and middle ages, as in the cases below. It should be considered in the differential diagnosis of abdominal pain, it can be associated to fever or toxic symptoms. We could also palpate an abdominal mass. The abdominal TC shows suggestive images and or induce to the diagnosis. Initially, the treatment is conservative and symptomatic; if there is no improvement it will require only corticoids, or corticoids with immunosupressives or colchicine. Prognosis was favorable as in the cases described below. Due to the possibility of a subsequent appearance of neoplasms or systemic diseases, it is important monitoring the patient.

Conclusions: Mesenteric panniculitis is an uncommon condition whose exact cause remains unclear. This finding should be a challenge for any doctor. A clue to find the underlying entity in which it can be associated with.

IF-72
CELIAC DISEASE: A SYSTEMIC INFRADIAGNOSED DISORDER

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Objectives: Celiac disease is an immune mediated systemic disorder characterized by malabsorption after ingestion of gluten in genetically susceptible individuals. It occurs in 1% of general population, and has a wide spectrum of gastrointestinal and extra-intestinal manifestations. Objectives: review characteristics of celiac disease in patients diagnosed in our hospital, in the last six years. Identify clinical and analytical patterns that force us to rule out celiac disease.

Material and method: A descriptive study was performed on patients diagnosed of celiac disease between 2006 and 2011. We reviewed medical records of this population and we analyzed clinical, analytic and histological characteristics, associated diseases, family history of the disease, HLA DQ and gluten free diet compliance and responses. SPSS v.18.0 was used for data analysis.

Results: From 2006 to 2011, 62 patients were diagnosed of celiac disease, with a mean age of 34 years (range 0.8-90). They were stratificated in 3 groups: 1-patients < 10 years old (33.9%); 2-individuals between 11 and 20 years old (only 2 patients); 3-patients > 20 years (62´9%). In first group the diagnosis was mainly based on clinical features (delay in linear growth 52.4% followed by diarrhea 33.3%) and small bowel biopsy, that was performed in 90% of individuals and was positive in 100% of them. In third group the main age was 54 years, with 64.1% female. The most prevalent symptom was diarrhea (66.7%) followed by weight loss (35.95%) and abdominal pain (23.1%). Between laboratory abnormalities we found iron deficiency as the most common (51.3%), followed by folic deficiency (23.1%), hypoproteinemia (17.9%), vitamin D deficiency and vitamin B12 deficiency (15.4%). Serologic testing were obtained in more than 75% of patients and were positive for antigliadin antibodies in 72.7% and for transglutaminase antibodies in 60%. We found a statistically significant association between iron, vitamin B12 and folic acid deficiency with positive transglutaminase antibodies. Small bowel biopsy was taken in 82.1% and was positive in 81.3% of patients. The most frequently associated patologies to celiac disease were: osteoporosis/osteopenia (35%), enteric infections (15.4%), autoimmune disease (12.8%) and dermatitis herpetiformis –like rash (10.3%). The dietary adherence was similar in children and adults (93.9% and 93.1% respectively), but in these last the good response to it was lower (74% vs 88% in children).

Discussion: According to previous reviews about celiac disease, gastrointestinal manifestations remain the guiding symptom to the clinical suspicion. In our review, we have observed that laboratory abnormalities are the mainstay of diagnostic suspicion in adult population, being the most common in this group iron deficiency, followed by folate and vitamin B12 deficiency. All of them are correlated with positive transglutaminasa antibodies. A clinical response to gluten-free diet was observed in most cases.

Conclusions: 1) In population under 10 years, diagnosis of celiac disease was based on digestive manifestations or growth delay together with positive biopsy, supported by the response to gluten free diet. 2) In adult population, gastrointestinal symptoms were

predominant clinical manifestations, and bone disorders were the most common pathology associated, probably related to major prevalence in more than 50-year age people. 3) In case of unexplained iron deficiency, or folate and B12 deficiency, especially if there are digestive symptoms associated, it is important to have a high index of suspicion for celiac disease and to amplify the study with serological studies.

IF-73
TEMPORAL ARTERITIS IN OUR ENVIRONMENT

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Objectives: To determine the characteristics of patients with suspected giant cell arteritis at the University Hospital of Badajoz to whom underwent biopsy of the temporal artery.

Material and method: Retrospective descriptive study conducted from the database of the Department of Pathology University Hospital of Badajoz of temporal artery biopsies performed between 2000 and 2011. A protocol was designed to collect data with regard to the main symptoms associated with the disease and laboratory abnormalities and pathological data. We also analyzed the treatment or not administration. Statistical analysis was performed using SPSS 15.0.

Results: We analyzed forty-seven patients belonged to different departments of our hospital complex, all included in the database of the Pathology Department of the temporal artery biopsies between 2000 and 2011. Of these patients, 15 were men and 32 women. The average age observed was 73 years. The most common symptoms were: headache (observed in 53.2% cases), fever (25 patients) and constitutional syndrome (53.2%). On the other hand, the most frequently observed laboratory abnormalities were: elevated erythrocyte sedimentation rate (ESR) in 40 patients in the sample, the presence of anemia in 66% of cases and elevated C-reactive protein (PCR), observed in 18 of 29 patients in which such determination was made. In our sample, thirteen patients were diagnosed with polymyalgia rheumatic although the association between this disease and giant cell arteritis was observed only in 12.8% of cases. Of the temporal artery biopsies performed, only 9 showed findings suggestive of giant cell arteritis. 68% of the biopsies were reported as doubtful for the diagnosis of temporal arteritis. Moreover, the clinical diagnosis of giant cell arteritis was made in 49% of cases, 9 of them with compatible biopsy and 4 with equivocal pathological findings for temporal arteritis. However steroid treatment was prescribed in 70% of patients in our sample. Only 7 cases steroid therapy was associated with acetylsalicylic acid (ASA). Of the 40 patients who showed an elevated ESR, 22 were diagnosed with temporal arteritis. In the same way, positive or inconclusive biopsy for diagnosis of temporal arteritis is always observed in patients with ESR values above 90 mm/1st hour.

Discussion: Temporal arteritis is a rare disease in our environment. The guiding symptoms include headache, fever and constitutional symptoms in elderly patients, in which is observed anemia and elevated ESR. In some cases establishing empirical steroid treatment despite negative or equivocal results of histological studies, since the absence of compatible discoveries not exclude this ill because the affectation of the temporal artery is patched.

Conclusions: A high clinical suspicion justifies the introduction of steroid treatment. But new diagnostic means more profitable should be generalized as doppler ultrasonography of the temporal artery.

IF-75
GUILLAIN BARRÉ SYNDROME: MANAGEMENT, TREATMENT AND EVOLUTION

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Objectives: To describe the laboratory tests, treatment and outcome of patients admitted for a Guillain-Barré syndrome (GBS) in our hospital.

Material and method: We performed a retrospective study of the hospital discharges in with diagnosis include GBS, between January 1, 2002 and April 30, 2012. The following variables were recorded: age, gender, diagnostic test, treatment and need for mechanical ventilation, relapse, comorbidities, and death.

Results: A total of 29 patients of which + 16 were women (55.2%). The age ranged between 13-79 years with a mean of 52 ± 18.5 years. Samples of the cerebrospinal fluid were taken in all patients except 1, showing albumin-cytological dissociation in 86.2% of cases. Neurophysiological findings were 44.8% pure motor axonal polyneuropathy, 34.5% a sensory-motor axonal polyneuropathy and only 17.2% demyelinating polyneuropathy. Ganglioside antibodies (anti-GM) were positive in 1 of 7 patients. Lumbar MRI was performed in 27 patients, demonstrating findings consistent with GBS in 58.6% of cases. Of the 29 patients, 23 (79.3%) were treated with immunoglobulin, 1 (3.4%) with plasmapheresis and in 2 cases (6.9%) were used immunoglobulins and plasmapheresis. Five patients (17.2%) needed mechanical ventilation. Regarding evolution, 24 patients (82.8%) recovered without sequelae, 3 had a relapse and there were 2 patients who did not obtain their data by removal. Five patients (17.2%) died. The diagnosis of GBS was concomitant with SLE in 1 patient and with sarcoidosis in another one.

Discussion: GBS is defined as an ascending and progressive muscular weakness with areflexia, which progresses over a few days to a few weeks. It can occur at any age and in both genders. The cerebrospinal fluid findings and the imaging test are similar to those in other series. However, the electrophysiological findings differ greatly from those previously described because, in our series, the pure motor axonal polyneuropathy is more common than demyelinating polyneuropathy. In previous studies, anti-GM was positive in one third of the patients, but in our serious was positive only in 1 patient. This data would not be valuable because in our series anti-GM were only requested in 7 patients. With regard to treatment, due to lack of experience in our centre with plasmapheresis, almost 80% of cases were treated with immunoglobulin and only 1 patient was treated with plasmapheresis starting because it presented a deficit of IgA. Previous studies have shown that the use of immunoglobulin is as effective as plasma exchange and association of both does not increase the benefit. However, a study of 2010 explains that in the axonal variant, plasma exchanger could be higher than immunoglobulin. Although in our series dominates axonal pathology, which is correlated with increase severity of disease, evolution and mortality did not differ from previous studies in which most often dominates the demyelinating polyneuropathy.

Conclusions: Unlike previous studies published, in our series pure motor axonal polyneuropathy was the most common neurophysiological finding, however the measurement of the antibody was inappropriately low. MRI was a diagnosis aid in more than 50% of cases. The most common treatment was immunoglobulins presenting a favourable evolution in most of the cases. Mortality was similar to previous studies.

IF-79
EFFECTIVENESS OF ANTI-TNF THERAPY IN HIDRADENITIS SUPPURATIVA

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Objectives: Hidradenitis suppurativa (HS) is a chronic recurrent inflammatory disease that affects skin areas where apocrine glands predominate. To assess the severity and activity classification have the three stages of Hurley and a scoring system based primarily on the number of affected areas and injuries. In severe or recurrent cases with conventional treatment, anti-TNF may be a therapeutic option Objective: to analyze the characteristics and clinical course of two patients suffering from HS treated with anti-TNF by lack of response to conventional therapy.

Material and method: Patient 1: a 37-year man with history of epilepsy and mild cerebral palsy, diagnosed in 1995 HS, with frequent and severe relapses in the past year. In the presence of extensive lesions in the groin and axillary regions and bilateral gluteal and failed standard therapy (retinoids and tetracyclines), started treatment with etanercept 50 mg sc/week, with very good response after the first three months of follow-up from an stage III to stage I of Hurley. Patient 2: a 33-year woman with recurrent hidradenitis affects in right underarm, and pubic inframammary region since 2007, with poor response to surgical treatment, retinoids and courses of antibiotics. In November 2010 we started treatment with adalimumab 40 mg sc every two weeks with good response after one year follow up moving from stage III to stage II.

Discussion: HS is characterized by painful subcutaneous nodules that may progress to abscess formation and suppurative fistulous tracts with hypertrophic scarring. They are located at the level of groin, axilla, and intertriginous areas submammary folds and buttocks. In mild cases, treatment consists of surgery, antibiotics and retinoids, alone or in combination. In severe or recurrent cases with standard treatment, described the response to treatment with anti-TNF-alpha, as in the cases presented. The duration of treatment is not well established, with frequent recurrences in case of suspension.

Conclusions: The anti-TNF should be considered an alternative to the treatment of severe HS. Lesions often recur to suspend them so they must be considered as a second or third line of treatment to be administered indefinitely to the risk of side effects and high cost.

IF-83
EPIDEMIOLOGICAL CHARACTERISTICS OF SARCOIDOSIS PATIENTS IN OSONA (1983-2011)

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Objectives: Sarcoidosis is multisystemic inflammatory disease that is characterized histologically by noncaseating granulomas. No recent studies in Catalonia that value the epidemiology, diagnosis and outcome. To know the current incidence and to evaluate the epidemiological profile of sarcoidosis in the Osona's area. To describe type of clinical presentation, diagnosis methods, delay in the diagnosis, radiologic pattern, treatment, and the mortality.

Material and method: We reviewed the cases of sarcoidosis of Consorci Hospitalari de Vic, between 1983-2011. The diagnosis of the sarcoidosis was based on clinical, radiological, bronchoalveolar lavage and histopathological criteria. The study is descriptive and retrospective.

Results: 54 patients were diagnosed of sarcoidosis with incidence of 2.08 for 100,000 inhabitants/year. 37 (68.5%) were women with a mean age 51 ± 13.8 years and 17 (31.5%) were male, with a mean age 41 ± 14.5 years. (p = 0.016). Comorbility was: HTA 19 (35.2%), smokers 16 (29.6%), DM-2 5 (9.3%), others 9 (16.6%). There were 5. (9.2%) with organ-specific autoimmune disease. The most frequent presentation form was Löfgren syndrome 18 (33.4%), respiratory symptoms 14 (25.9%), general syndrome 9 (16.6%), erythema nodosum 4 (7.4%) and miscellaneous 7 (12.9%). There was one case of Heerfordt syndrome. Analytical findings: the mean of PCR was 33.9 (3.10-128), VSG 34.19 (1-87), ECA 128 (17-483). ANA's were positive in 4 cases (7.4%). Tomographic findings at the time of the diagnosis were: stage I 35.2%, stage II 40.7%, stage III 3.7%, stage IV 5.6% and stage 0 14.8%. Gammagraphic-Ga was done in 17 (31.5%), was positive in 94.1% of them. Bronchoalveolar lavage recount: Lymphocytes 45 ± 20%, Neutrophils 5 ± 3-4%, Macrophages 50 ± 19.7%. Biopsy was transbronchial in 20 (36%), skin 11 (20.3%), muscle 10 (18.5%), ganglionar 7 (13%), mediastinoscopy 3 (5.6%), open lung biopsy 2 (3.6%), others (5.6%). Delay in diagnosis was about 6 months (0.4-51). 11 patients died (20.4%) and 4 of them were related with sarcoidosis (7.4%). Hospital readmission was in 38.8% of cases. Radiologic findings worsened only in 5 cases. The treatment was corticoids 44 (81.5%), methotrexate 6 (11.1%), azatioprine 5 (9.3%), hidroxicloroquine 4 (7.4%), infliximab 3 (5.5%), ciclosporine 2 (3.6%). One case was associated with the adverse effect of a tumor necrosis factor inhibitor: etanercept.

Conclusions: The incidence of sarcoidosis was higher than previously published in an area of Catalonia. Like has been published before, the findings in our review, shows: sarcoidosis was more common in women. And the presentation was in older age than men. HTA was the most related comorbility. Löfgren syndrome was the most frequent presentation form. Stage II was the most common. Diagnostic delay mean was of 6 months. Transbronchial biopsy was the main diagnostic method. The most common treatment was with Corticoids. The trend of radiological evolution was to stability or to improvement with a low sarcoidosis-related mortality. Furthermore, we report one case of sarcoidosis associated with etanercept, and another case with Heerfordt syndrome presentation.

IF-84
PREVALENCE AND CLINICAL FEATURES OF BEHÇET DISEASE IN A COHORT OF 123 PATIENTS WITH UVEITIS

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Objectives: To assess the prevalence of Behçet disease (BD) in a cohort of patients with uveitis and to describe the clinical features and course of their ocular and extraocular manifestations.

Material and method: Retrospective observational study of a cohort of 123 uveitis patients, followed-up in our Uveitis Unit from January 2008 to April 2012. All patients underwent a full systemic review, ocular examination, and systematic standard baseline investigations which included blood and urine analyses, VDRL test for syphilis, a chest X-ray and tuberculin skin test. Other determinations such as HLA B51, autoantibodies or specific radiological test were performed selectively according with clinical history. Diagnosis of BD was made in patients who fulfilled the International Study Group criteria. Information on the patient's

sex, age at onset of uveitis, clinical features, complications and systemic treatment was collected.

Results: Diagnosis of BD was made in 12 of 123 patients with uveitis (9.75%). Sex ratio was 1:1 and median age at presentation 34 years (17-42). Uveitis was the first manifestation of BD in 10 of 12 patients. Clinical presentation was chronic or recurrent in 10, severe in 10 and bilateral in 6 subjects. We found 2 panuveitis, 6 posterior uveitis, 3 intermediate uveitis and 1 anterior uveitis. Main ocular features were 7 retinal vasculitis, 7 vitritis, 3 pars planitis and 2 iridociclitis. The most severe complications were 4 macular edema, 1 retinal detachment, 1 glaucoma, 1 central retinal vein thrombosis, 1 choroidal neovascularization, 1 pseudo orbitary tumor and 1 optic neuritis. Oral ulcers were present in all subjects and genital ulcers in half of them. Other extraocular manifestations were 6 patients with cutaneous lesions (3 erythema nodosum, 2 pseudofolliculitis, 1 purpura, 1 urticaria), 4 patients with arthralgias and/or arthritis, 3 patients with neurologic involvement (2 psicosis and 1 migraine headache), 1 patient with thrombosis (bilateral pulmonary thromboembolism) and 1 patient with diarrhea. Two patients referred a history of pathergy, but none of the subjects were tested for a pathergy test. HLA–B51 was tested in all patients, resulting positive in 5 of 12 patients. Regarding the treatment, steroids were used in 9 patients, requiring intravenous bolus only in 1 of them. Among immunosuppressant the most common used was cyclosporine A (83%, 10 patients). Others were azathioprine (5 patients), methotrexate (4) and biologic agents such as adalimumab (3) and infliximab (1).

Discussion: BD is a chronic relapsing inflammatory multisystemic vasculitic disease with a wide spectrum of clinical presentations. Eye involvement occurs in approximately 70% of the patients and is associated with a high risk of blindness. The disease can affect the anterior and/or posterior segments of the eye, and the main manifestations include iridocyclitis, hypopyon, mild to moderate vitritis, posterior or panuveitis with occlusive retinal vasculitis, optic neuropathy and macular edema. Medications such as corticosteroids and immunosuppressive agents are used to reduce inflammation in patients with posterior or panuveitis. Novel biologic drugs such as tumour necrosis factor (TNF)-alpha-antagonists have been introduced in the treatment of ocular BD with very promising results.

Conclusions: 1. Nearly 10% of patients of our series were diagnosed with Behçet disease. 2. Most patients presented with severe uveitis as the first manifestation. 3. Early diagnosis and treatment are essential in order to prevent disease-related complications, such as blindness in the case of uveitis Behçet. 4. Multidisciplinary Units composed of internists, rheumatologists and ophthalmologists are essential for adequate management of this disorder.

IF-86
ANTIPHOSPHOLIPID SYNDROME (APS): DESCRIPTION OF 32 CASES FULFILLING SYDNEY'S CRITERIA

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Objectives: To describe the clinical and epidemiological characteristics of the patients with diagnostic of APS, attended at the Unit of Autoimmune Diseases of the HUCA, in Asturias from May 2006 up to Diciembre-2010, including only those patients who fulfill Sydney 2008's diagnostic criteria, and to review the results of the laboratory tests used.

Material and method: Retrospective review of computerized reports of 48 patients recorded in the database of the Unit with the diagnosis of APS. We recorded: Age, sex, kind of APS (primary or secondary), clinical diagnostic criteria (arterial thrombosis, venous thrombosis, pregnancy morbidity), laboratory diagnostic criteria (kind of positive antiphospholipid antibody) and treatment given (anticoagulants, antiplatelet agents, hidroxicloroquine).

Results: 48 patients were registered by APS's diagnosis of which 32 were fulfilling Sydney's criteria. Middle Age to the diagnosis 38.8 year, 21 women (65.6%) vs 11 males (34.4%). 25% as presenting secondary APS to another autoimmune systemic disease, 100% SLE, all of them women. The diagnostic criteria were including arterial thrombosis in 11 patients (34.37%, 7 of them, 63.6% in SNC), venous thrombosis in 19 (59.4%), and pregnancy morbidity in 9/21 women, 5/9 as the only clinical criterion. The laboratory criteria patients were including a positive lupus anticoagulant (LA) test in 15/32: as the only criterion in 5/15; a positive ELISA testing in the case of anticardilipin antibody (ACL) IgG test in 15/32 patients and IgM 10/32; the ELISA testing for anti-beta2glicoprotein-I IgG was positive in 16/32 patients and for IgM one in 6/32. Only 3 patients fulfill the diagnostic laboratory criteria for all antiphospholipid antibodies (aPL), two of them were women and with diagnosis of secondary APS. It was possible to confirm the treatment of 31 patients: 23/31 patients were treated by oral anticoagulants, one of them by Rivaroxaban, only in 2 of them associated to antiplatelet agents, 9/31 they were taking hidroxicloroquine, 7 of them with secondary APS.

Discussion: Many studies on APS do not fulfill the criteria for Sydney's diagnosis, usually because of testing for aPL is performed at one time point only, without confirmation by subsequent testing at least 12 weeks apart, and with an "over-diagnosis" of the syndrome. Thus, the research conclusions might be erroneous if applied to patients who really meet diagnostic criteria for APS.

Conclusions: 1) Two thirds of the patients registered in our database like APS were fulfilling the criteria. 2) The syndrome, even if diagnosed fulfilling Sydney's criteria, is more prevalent in women at the young age. 3) The venous thrombo-embolic disease remains also the most frequent diagnostic clinical criterion (59.4%). 4) LA, ACL IgG and anti-beta2glicoprotein-I IgG were the most prevalent tested antibodies, the last one even more than the first one in patients with thrombo-embolic disease. 5) 74.2% of the patients receive oral chronic anticoagulation, antiplatelet agents are reserving for the treatment of women with pregnancy morbidity. 5) The Sydney criteria should be used in clinic practice to prevent "over-diagnosis" of APS and more extensive workshops using them should be made for research purposes with clinical warranties.

IF-87
POPULATION-BASED STUDY OF INCIDENCE A ND PREVALENCE OF UVEITIS IN THE SOUTH OF SPAIN

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Objectives: Population-based retrospective epidemiological study of incidence and prevalence rates of Uveitis in a well defined geographical area in the south of Spain.

Material and method: Medical records of all patients diagnosed of uveitis, from 1/05/2012 to 30/04/2012, in the six public hospitals of Malaga province, in the south of Spain, that provided a practically complete collection of uveitis cases in this area, was reviewed. Ophthalmologists, in charge of the patients care, obtained data from medical records using precoded forms, including information of socio-demographic (age, sex, ethnicity) and clinical characteristics (age at diagnosis, time from diagnosis, anatomic and clinical classification, clinical course, and complications. All patients received information about study and signed consent.

Results: In this time, 196 incident and 589 prevalent uveitis patients were diagnosed, with more females than males (55.6% and 58.4% vs 44.4% and 41.6%, respectively). The raw incidence and prevalence rates were 12.1/100.000 (95%CI: 10.5-13.9) and 36.2/100,000 (95%CI: 33.4-39.3), population, respectively. The mean age at the time of disease diagnosis was 40.3 ± 19.2 years, and at the time of study was 45.7 ± 18.3 years, and mean follow-up time was 66.9 ± 82.6 months. There were 92.5% whites, 3.2% Hispanics and 2.9% from the north of Africa. Clinical course was acute in 33.8%, recurrent in 50.4%, and chronic in 15.6% cases. Anatomic classification was, anterior in 68.9%, intermediate in 6.6%, posterior in 7.1%, and panuveitis in 17.0% cases. Related to clinical classification, 41.6%, were idiopathic, 11.0%, were specific ophthalmologic forms of uveitis, 34.0%, were uveitis associated with known systemic diseases, and 13.4%, were infectious (herpetic, 6.6%, toxoplasmosis, 2.2%). Mean visual acuity (VA) of right eye was 0.77 ± 0.30 and of left eye was 0.76 ± 0.31. There were 13.9% patients with VA < 80% of at least one eye, 2.2% with AV ≤ 0.1 in both eyes, and 0.5% with VA < 0.05 in both eyes. Most important complications were, cataract (28.9%), glaucoma (12.4%), cystoid macular edema (9.0%), retinal detachment (1.9%), retinal neovascularization (2.5%) and vitreous haemorrhage (2.2%), and 238 (40.4%) patients had at least one of these complications. Only cataract, cystoid macular edema, and any type of complication were more frequent in prevalent than incident cases.

Conclusions: In this well defined geographical area of the south of Spain, frequency and characteristics of uveitis are similar to those referred in other countries of the western word. It is a rare disease of unknown etiology, with recurrent or chronic inflammatory course, who frequently develop severe complications.

IF-88
AGE EFFECT IN ETIOLOGY AND CHARACTERISTICS OF UVEITIS

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Objectives: Evaluation of the relationship of age at diagnosis with the clinical characteristics (anatomic and clinical classification, clinical course, and complications) or uveitis in a well defined geographical area in the south of Spain.

Material and method: Medical records of all patients diagnosed of uveitis, from 1/05/2012 to 30/04/2012, in the six public hospitals of Malaga province, in the south of Spain, that provided a practically complete collection of uveitis cases in this well defined geographical area, was reviewed. Ophthalmologists, in charge of the patients care, obtained data from medical records using precoded forms, including information of socio-demographic (age, sex, ethnicity) and clinical characteristics (age at diagnosis, time from diagnosis, anatomic and clinical classification, clinical course, and complications. All patients received information about study and signed consent.

Results: Age distribution at time of diagnosis of 589 patients registered was: younger than 16 years (children and adolescents [CA]), 12.5%, older than 16 years and younger than 60 years (middle age [MA]), 70.9%, and older than 60 years (older [O]), 16.6%. In CA group, there were more frequent females, chronic clinical course, intermediate anatomical classification, and association with known systemic diseases, as well as less complications, more time of follow-up en better visual acuity. In the O group, there were more frequent anterior anatomical classification, idiopathic forms and development of complications, cataract and glaucoma ($p < 0.05$). Factors related with the presence of complications at logistic multivariate statistical model were: O group of age at diagnosis, panuveitis, chronic forms and longer time of follow-up.

Conclusions: Uveitis have different characteristics related to the age at presentation. Complications development are more frequent in older patients with panuveitis, chronic evolution and longer duration of the disease.

IF-89
ASSOCIATION OF 25-HYDROXYVITAMIN D DEFICIENCY WITH SELECTED CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: Epidemiological studies suggest that systemic lupus erythematosus (SLE) patients have a higher cardiovascular (CV) risk which is not explained by traditional cardiovascular risk factors. Low serum levels of25-hydroxyvitamin D [25(OH)D] are associated with CV risk factors and a higher frequency of CV disease in the general population. The aim of this study is to determine serum vitamin D level in SLE patients and its relationship with cardiovascular risk factors, inflammatory markers, clinical parameters, activity of the disease and markers of subclinical CV disease.

Material and method: 28 SLE patients (> 4 ACR 1997 criteria) were recruited from outpatient clinics between April and June 2011. Data collected included demographics, SLE activity (measured by SLEDAI) disease damage (measured by SLICC/ACR), CV risk factors, inflammatory markers and markers of subclinical CV disease. 25(OH)D measured by Ultra-high performance liquid chromatography, was defined as deficient serum 25(OH)D < 25 nmmol/l, insufficient 25-75 nmmol/l, and normal > 76 nmmol/l. Arterial stiffness was assessed by measuring the carotid-femoral pulse wave velocity (PWV) by Doppler velocimetry and carotid atherosclerosis was determined by evaluating the intima media thickness (IMT) and carotid plaque using B-mode ultrasound scanning.

Results: The median age of the 28 SLE patients included was 40.5 years. The mean of 25(OH) D concentration in our patients was 41.89 ± 19.88 nml/L, with 3 patients presenting normal 25(OH)D concentration (10.71%), 17 patients (60.71%) had insufficient levels and 8 patients (28,57%) deficient levels. A positive correlation between 25 (OH)D levels and HDL levels was observed ($r = 0.375$, $p = 0.049$). Patients with insufficient and deficient 25(OH)D levels were found to have significantly higher hsPCR ($p = 0.04$) and D

dimer concentrations (p = 0.004). No differences were detected between 25(OH)D and the other cardiovascular risk factors studied (Hypertension, smoking, diabetes mellitus, dislipemia, family history of CV disease and metabolic syndrome). However, we observed that patients with a higher number of cardiovascular risk factors present lower 25(OH)D (not statistically significant). The patients with active disease (SLEDAI > 4), photosensitivity, and renal disease tended to have lower vitamin D levels. No association was found between arterial stiffness, assessed by PWV, increased IMT or the presence of carotid plaque and the concentration of 25(OH)D in the serum of SLE patients included in our study.

Discussion: This study shows an association between CVD risk factors (HDL cholesterol, D Dimer and hsPCR) and low 25(OH)D levels as well as lower 25(OH)D levels in patient with higher SLEDAI. These findings have also been described in the literature. No association has been found between 25(OH)D level and subclinical atherosclerosis assessed by PWV and IMT. There are contradictory results in the literature regarding the association between 25(OH)D and subclinical atherosclerosis. This could be due to the different number of patients in each study and the method use to measure subclinical CV disease.

Conclusions: Vitamin D levels are low in women with SLE and significant associations exist with selected CV risk factors. Future studies are needed to determine whether vitamin D levels can predict subclinical atherosclerosis in patients with lupus.

IF-90
BIOLOGICAL DRUGS USE IN PRIMARY IMMUNODEFICIENCIES

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Objectives: To analyze our experience in the use of biologic agents in patients with primary immunodeficiency antibodies.

Material and method: Retrospective analysis of 8 patients over 18 years, diagnosed with primary antibody deficiency, by WHO classification, followed by Internal Medicine. The mean age of patients was 23 years, all of whom were male. The time evolution of the disease was on average 10.2 years.

Results: We present 8 patients that have received biological drugs for various indications and other immunosuppressive drugs, mainly steroids, azathioprine. The rate of infection was lower along the use of biological drugs (median follow up 1.2 years) than along the treatment with other immunosuppressants. There was only one episode of serious infection that required hospitalization, a patient with X-linked agammaglobulinemia who presented a herpes zoster, while being trated with steroids and certolizumab for inflammatory bowel disease (IBD). The perceived quality of life was better when using biological agents than previously to it. Four patients received anti.TNF for the treatment of IBD refractory to standard treatment. One of them, an X-linked agammaglobulinemia, received infliximab, adalimumab and certolizumab. Three chronic granulomatous disease received infliximab and adalimumab. For all the cases, the disease control was adequate, although some of them needed to change the anti.TNF and one of them the use of adjuvant agranulocitoapheresis Another 2 patients with common variable immunodeficiency (CVI) and autoimmune thrombocytopenia received rituximab with an excellent evolution. Another CVI received rituximab for a transverse myelitis with resolution of the spinal pathology. A lymphoid interstitial pneumonitis got a total resolution after the use of antiCD20.

Discussion: The development of knowledge and the care process of patients with primary immunodeficiencies have improved the life expectancy and quality of life. In the last years, biological drugs have been introduced for the treatment of various autoimmune diseases profile.

Conclusions: Our experience can open the prudent use of biological drugs for patients with PID, always under close monitoring and appropriate prescription.

IF-91
POLYARTERITIS NODOSA IN THE INTERNAL MEDICINE DEPARTMENT - A STATISTICAL STUDY

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Objectives: (i) Identify patients with polyarteritis nodosa according to the ACR (American College of Rheumatology) criteria, who were under supervision in the Autoimmune Diseases Outpatient Care, Internal Medicine Department; (ii) describe their clinical condition; (iii) assess their response to therapeutics and their clinical progress. This study took place between October 2003 and January 2011.

Material and method: 1) Retrospective assessment of patients with polyarteritis nodosa, who were followed from October 2003 to January 2011 in Autoimmune Diseases Outpatient Care in the Internal Medicine Department. 2) Diagnosis of Polyarteritis nodosa according to the 1990 criteria of the American College of Rheumatology. 3) Analyzing the patients' clinical history and filling in a form specifically designed for this study. 4) Inserting the results in the database and analyzing them (statistics). 5) Variables under study: number of cases, gender, race, current age, age when the first symptoms occurred, age at the time of the diagnosis, time elapsed between the first symptoms and the diagnosis, follow-up time in autoimmune diseases outpatient care, registered diagnose criteria, clinical manifestations, factors of poor prognosis, therapy applied, registered comorbidity, development.

Results: Six cases were analysed, with the average age of 47 years (27-61), all female Caucasian subjects. They were under supervision for an average of 46 months (13-86). The first symptoms were detected at the average age of 41 years old (25-55) and the diagnosis was carried out at the average age of 44 years old (26-55). Registered diagnosis criteria: ponderal weight loss greater than 4 kg (83%); livedo reticularis (100%); myalgia or muscular weakness (100%); mono or polyneuropathy (67%), diastolic blood pressure above 90 mmHg (50%); urea above 40 mg/dl or creatinine above 1.5 mg/dl (50%); HBsAg or Ab (17%); angiographic changes (50%); biopsy which shows signs of vasculitis (33%). Most frequent clinical manifestations: fever (17%); asthenia (100%); weight loss (83%); arthritis (33%); arthralgia (83%); muscular weakness (83%); myalgia (100%); livedo reticularis (100%); Raynaud's phenomenon (50%); proteinuria (33%); HTN (83%); peripheral neuropathy (67%); cerebral vasculitis (33%); lymphocytic alveolitis (17%); optic papillitis (17%). Registered comorbidity: dyslipidemia (50%); obesity (17%); osteoporosis (17%); diabetes mellitus type II (50%); spontaneous abortion in the first quarter (17%); depressive syndrome (50%). All patients underwent induction therapy with corticosteroids (100%) and cyclophosphamide (83%), but only four patients were administered corticosteroids (33%) and azathioprine as maintenance therapy and they responded well and remained stable. The patient with positive HBsAg underwent a treatment with lamivudine and adefovir after he was administered corticosteroids and cyclophosphamide due to a high HBV viral load. Factors for a poor prognosis for four patients: age over 50 years (33%) and neurological involvement (50%).

Discussion: Since the sample is too small, it is not possible to accurately: (1) compare the results we gathered with the ones described in the literature; (2) relate the factors of poor prognosis with the clinical development.

Conclusions: We were able to draw the following conclusions about our patients: (1) 100% Caucasian females; (2) Average age when the first symptoms appeared: 41 years old; (3) Main clinical manifestations: livedo reticularis and Raynaud's phenomenon, arthralgia, arthritis, myalgia and muscular weakness, ponderal weight loss > 4 kg, peripheral neuropathy, HTN and renal involvement. (4) 67% of the patients show factors of poor prognosis; (5) Six patients underwent induction therapy with corticosteroids and/or cyclophosphamide; (6) Four patients were undergoing maintenance therapy (azathioprine); (7) The patient HBsAg positive was administered antiretroviral therapeutics; (8) Four patients responded well to the therapeutics.

IF-92
THROMBOTIC THROMBOCYTOPENIC PURPURA IN SYSTEMIC LUPUS ERYTHEMATOSUS: PRESENTATION AND CLINICAL OUTCOME IN A SINGLE CENTER EXPERIENCE

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Objectives: Describe the clinical presentation, response to therapy and outcomes of thrombotic thrombocytopenic purpura associated with systemic lupus erythematosus in a tertiary university hospital.

Material and method: This is a retrospective observational study of a series of 4 patients diagnosed of thrombotic thrombocytopenic purpura and systemic lupus erythematosus admitted to the department of Internal Medicine of a tertiary university hospital between January 2003 and June 2011. Demographic, clinical and treatment related data, including the number of plasmapheresis sessions performed, and outcome data were recorded.

Results: All patients were young women under 40 years. In 50% the diagnosis of SLE was established an average of 5.5 years after the onset of TTP. In the remaining 50%, TTP and SLE presented simultaneously. All of those who presented simultaneously had renal involvement with diffuse proliferative lupus nephritis diagnosed on the renal biopsy in one of them. Only one of the four patients had neurological symptoms with seizures. ADAMTS-13 was measured in only one patient, and it was within normal range. All patients received high dose corticosteroids and an average of 9.75 sessions of plasmapheresis. 2 patients (50%) received immunosuppressive therapy (1 patient sodium mycophenolate, 1 patient iv cyclophosphamide). The patients presenting TTP and SLE simultaneously received more plasmapheresis sessions (4 vs 15.5). The outcome in our patients was excellent with a 100% of complete remission. None of them recurred, after a mean follow-up period of 4 years (1-8). None of the patients died.

Discussion: Thrombotic thrombocytopenic purpura (TTP) is a syndrome characterized by the clinical pentad of severe thrombocytopenia (< 50.000/mm^3), microangiopathic haemolytic anaemia, neurological symptoms, renal dysfunction and fever. Autoimmune inhibition or genetic mutation of the metalloprotease that cleaves von Willebrand factor multimers (ADAMTS-13) contributes to its pathogenesis. TTP is a rare but often fatal complication of systemic lupus erythematosus (SLE), and causes high mortality in the absence of early therapeutic interventions. Its prevalence is between 1% and 4% and the prognosis in the few published studies so far is worse than in idiopathic or acquired TTP. Diagnosis is often difficult because of their clinical and biological similarities.

Conclusions: Despite being described in the literature as a fatal association with a high mortality in our small series the prognosis was very good with a complete remission of the PTT flare of 100%, no recurrences and no mortality during the follow up period. This can be explained by an early diagnostic suspicion and prompt treatment and plasmapheresis initiation. Although the number of patients presented is limited, we recommend to rule out PTT in any SLE patient presenting with microangiopathic haemolytic anaemia and thrombocytopenia in order to initiate plasmapheresis as soon as possible to improve prognosis.

IF-94
INFLAMMATORY BOWEL DISEASE ASSOCIATED WITH VENOUS THROMBOEMBOLISM

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Objectives: To establish the prevalence of inflammatory bowel disease (IBD) in a prospective cohort of patients with venous thromboembolism (VTE) and to describe the clinical and analytical characteristics in these patients and their prognosis, after a long clinical follow-up.

Material and method: From January 1, 2002 to May 1, 2012, 702 patients with VTE were prospectively included in the computerized database of the Thrombosis and Vasculitis Unit of the Hospital Xeral de Vigo, a tertiary care hospital which attends a population of more than 300,000 inhabitants. All patients with IBD were selected for the study and their clinical and analytical data were analyzed using the SPSS statistical program, version 18.0. Descriptive statistics including the percentage, mean ± DS and interquartile range were used.

Results: The prevalence of IBD in patients with VTE was 1.7%. The 12 patients with IBD and VTE had a mean age of 55 ± 14 years (range 35-80) and 75% were male. Proximal deep venous thrombosis was diagnosed in 11 patients (92%), in 1 of them without pulmonary embolism (PE) (PE was not investigated in 4 patients). One patient had PE without deep venous thrombosis. Five out of 12 (42%) had Crohn disease, 3 with ileal and 2 with colonic involvement. Seven out of 12 (58%) had ulcerative colitis, 4 sigmoiditis and 3 pancolitis. Eigth out of the 12 patients (67%) were diagnosed of VTE during a flare-up of IBD. Other risk factors for VTE were present: rest in 5 (42%), arterial hypertension in 4 (33%), smoking in 2 (17%), hypercholesterolemia in 2 (17%), cancer in 1 (8%) and surgery in 1 (8%). At least 1 of these risk factors was present in 9 patients (75%), 2 in 7 patients (58%), 3 in 2 patients (17%) and 4 in 1 patient (8%). Factor V Leyden, factor II mutation and protein C, protein S and antithrombin III deficiency were negative in the 3 patients tested, in the same way that ACLA and LA in 4 patients. Patients were treated with anticoagulation during an average of 1 year. Eight out of the 12 patients (67%) had active bleeding at the time of VTE diagnosis but no major bleeding was recorded even after anticoagulation. However, 2 received lower level of anticoagulation. The mean follow-up was 42.6 months (range 1-120). Two patients died by causes other than VTE. Three out of 10 patients (30%) had a recurrence of VTE (2 during new flare-up of IBD and 1 after a trauma) 3.3 years on average (range 2-4) after the first episode.

Discussion: According to a recent review of the literature, patients with IBD have a two- to four-fold increased risk of recurrent venous thrombosis, with a peak incidence of venous thrombosis when having a flare up of the disease. However, more studies are needed to evaluate these patients because some questions remain unresolved, for example: if other risk factors for thrombosis are present or if anticoagulation is safe during flare ups.

Conclusions: The prevalence of IBD in the cohort of patients with VTE is low. Patients with ETV and IBD usually have proximal deep

venous thrombosis. Most ETV occur during a flare-up of IBD and, in the majority, at least 1 known risk factor for thrombosis is present Major bleeding is not associated with anticoagulant therapy even during a flare-up of IBD.

IF-95
HLA-B27-ASSOCIATED UVEITIS

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Objectives: To asses clinical features and prognosis of HLA-B27-associated uveitis and to evaluate differences between patients with or without ocular complications, with or without an associated systemic disease as well as gender differences.

Material and method: Consecutive patients referred for HLA-B27 typing from January 1, 2006 to December 31, 2011 were selected from the database of the Clinical Analysis Department of the Complexo Hospitalario Universitario de Vigo, a tertiary care hospital which attends a population of more than 300,000 inhabitants. Medical records of HLA-B27 positive patients were reviewed and adult patients with at least 1 episode of uveitis evaluated by an Ophthalmologist were included in the study. Patients were grouped by the presence of ocular complications, the association with a systemic disease and sex. Data were analyzed using the SPSS program, version 18.0.

Results: 1,802 patients were referred for HLA-B27 typing and 292 (16.2%) were positive, 264 of which were adult patients (90.4%). 40 (15.2%) had at least 1 episode of uveitis with a mean age of onset of 39.2 years (range 15-62) and 57.5% were male. The mean follow-up was 7.8 years (range 1-21). 92.5% were anterior, 2.5% posterior and 5% no specified by the Ophthalmologist. 60% were recurrent, with 4.4 episodes of uveitis on average during a mean follow-up of 8.8 years. 12.5% were bilateral, of which 80% were recurrent. 5% were chronic, none of them associated with systemic disease. 57.5% were associated with a systemic disease: 65.2% ankylosing spondylitis (AS), 13% undifferentiated arthritis (UA), 4.3% reactive arthritis (RA), 4.3% psoriatic arthritis (PA), 8.7% inflammatory bowel disease (IBD) and 4.3% Wegener disease. In 7 patients (18.4%) uveitis were diagnosed after HLA-B27 typing (5 AS, 1 RA and 1 PA). In 9 (23.7%) HLA-B27 was typed at the onset of uveitis and in 22 (57.9%) uveitis was diagnosed before HLA-B27 typing (with a mean delay in diagnosis of 27.3 months, range 2-156). 52.5% of patients had complete response to topical corticosteroids and 20% (8patients) required a biological drug: 1 because of chronic steroid-dependent uveitis and 7 because of their systemic disease. 25% of patients had at least 1 ocular complication: 1 cystoid macular edema, 1 glaucoma, 5 cataract, 6 synechaie. Patients with ocular complications compared to those without were more frequently recurrent or chronic (100% vs 53.3%, $p < 0.05$) and treated with a biological drug (40% vs 13.3%, $p < 0.05$). Patients associated with a systemic disease compared to those no associated were more frequently treated with biologic drugs (30.4% vs 5.9%, $p < 0.05$). Female patients compared with males were more frequently acute and non recurrent (52.2% vs 21.7%, $p < 0.05$). No other differences were detected.

Discussion: Few series of patients with HLA-B27-associated uveitis with a long follow-up have been published. As in other studies, in our series HLA-B27-associated uveitis was often acute, anterior and recurrent and had good prognosis. Some of the published series found a higher prevalence of associated systemic disease in males, but this was not confirmed in the present work. In a recent study, men have a previous diagnosis of HLA-B27 more often than women when uveitis was diagnosed and have more ocular complications, but in the present series this difference was not significant. However, women had more frequently acute non recurrent uveitis, which were not associated with complications.

Conclusions: HLA-B27 uveitis is usually acute anterior and recurrent, with complete response to topical corticosteroids, good prognosis and, in more than half of patients, associated with systemic disease. There is an important delay in diagnosis of HLA-B27 uveitis. The association with systemic disease does not mean a worse ocular prognosis, however, biological treatment is associated with more frequent complications of uveitis.

IF-96
MARKERS OF LIVER FUNCTION AS SIGNS OF SYSTEMIC DISEASES

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Objectives: The central role of liver in metabolism, energy homeostasis, immune defense and detoxifying protection of the organism, as well as its anatomical and functional position, vascular specificity, correlation with adjacent organs have as a result its participation in multiple immunological syndromes.

Material and method: 130 patients treated in the period 2010-2011 with symptoms of hepatocellular necrosis: High levels of Bil, Ast, Alt, Alp, g-GT, ESR, Low levels of Alb, Chol, APTT, PT, INR, weight loss, jaundice, fever, arthralgias, sarkopenia, anorrhexia, abdominal pains, pruritus.

Results: See Table.

Conclusions: 1. It is perceived the need of differential diagnosis between liver disease and liver expression by systemic diseases. 2. Ultrasound elastography plays important role in the diagnosis of NAFLD. 3. The presence of fever, high ESR and arthralgias is correlated with autoimmune diseases. 4. Fever is the most common symptom among systemic diseases with hepatic impairment. 5. High precentage of acute viral hepatitis patients developed vasculitis.

Table 1 (IF-96)

Thyrrhoid impairment - 3	Idiopathic inflammatory bowel diseases (Crohn's, Ulcerative colitis, PSC) - 15
Celiac disease - 6	Granulomatous diseases (Hodgkin's, Brucellosis, EBV, CMV, Drugs) - 20
Addison's diseases - 3	Sarcoidosis - 3
Wilson's diseases - 1	Tuberculosis - 2
Ischemic hepatitis (heart failure - renal impairment) - 17	HIV (pneumocystis carinii, leishmania, cryptococcus, histoplasma) - 1
Haematological diseases (MDS, haemoglomunopathy) -7	Vasculitis (HBV) - 20
Autoimmune hepatitis type I (MS, SLE) - 2	NAFLD - 30

IF-97
FEVER OF UNKNOWN ORIGIN PRESENTING AS INTERSTITIAL LUNG DISEASE AND ANCA-ASSOCIATED VASCULITIS: CLINICAL AND LABORATORY ASSOCIATIONS IN A TERTIARY COHORT STUDY

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Objectives: ANCA-associated vasculitides i.e. polyangiitis (granulomatosis Wegener's), microscopic polyangiitis and Churg–Strauss syndrome are characterized by pauci-immune necrotizing vasculitis of small blood vessels. Despite the common association with ANCA, these disease entities differ significantly in their clinical features and underlying pathophysiology. Interstitial lung disease and ANCA-associated vasculitis, particularly microscopic polyangiitis, are frequently associated.

Material and method: The study was designed to investigate the incidence of patients with interstitial lung disease in a cohort of patients with ANCA-associated vasculitis, originally presented in the Emergency Room and investigated as fever of unknown origin, their defining characteristics and overall outcomes. For this reason, we included patients with final diagnosis of ANCA-associated vasculitis who also had interstitial lung disease. We recorded patient demographics, diagnostic tests, treatment, and clinical complications.

Results: Interstitial lung disease was observed in 6.9% (n = 5) of the studied patients with ANCA-associated vasculitis (n = 72); constitutional symptoms were present in all patients (n = 5), whereas respiratory symptoms including a dry cough and progressive dyspnoea were also common (n = 4). Other clinical features included arthritis/arthralgia (n = 3), scleritis (n = 3), rash (n = 2), and peripheral neuropathy (n = 2). All had MPO-ANCA and a clinical diagnosis of microscopic polyangiitis. Sepsis was present in all patients, whereas 2 presented pulmonary hemorrhage.

Discussion: There is a uniquely association between interstitial lung disease and microscopic polyangiitis, and specifically with anti-MPO-ANCA. This particular antibody or its evoked response is critical for development of interstitial lung disease. In cases of fever of unknown origin and interstitial lung disease, presence of vasculitis should be ruled out as an underlying disorder, in view of other potential organ involvement and possible therapeutic interventions.

IF-98
PROGNOSTIC IMPLICATION OF CLINICAL, SEROLOGICAL AND MICROVASCULAR ASPECTS OF PATIENTS WITH PRIMARY BILIARY CIRRHOSIS AND AUTOIMMUNE SYSTEMIC DISEASES

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Objectives: 1. To identify the incidence of connective tissue diseases (CTD) associated to patients with primary biliary cirrhosis (PBC) in our health reference area; 2. To describe the major characteristics of patients with PBC and Systemic Sclerosis (SSc), and 3. To evaluate the clinical, biological and micro-vascular aspects of patients with both diseases.

Material and method: From January 1990 to May 2011, 97 cases of PBC were diagnosed at the Parc Taulí Hospital, with a reference area of 389,758 inhabitants. This report is a cross-sectional study of PBC patients diagnosed following the American Association of the Study of Liver Disease criteria. Extra-hepatic signs of CTD were thoroughly investigated in 74 patients, as well as a full immunological investigation and nailfold capillaroscopy (NC).

Results: The average age of the cohort at the time of the study was 64 years (range: 29-96) with a female predominance (94%, female:male ratio: 15:1). 11.3% of PBC patients were diagnosed of SSc prior to entry in the study, mainly in the limited cutaneous form. The most frequent extra-hepatic symptom was sicca syndrome in 60%, followed by arthritis in 18.8%. Raynaud's phenomenon was present in 27.6%, and it was related to CTD in 71.4% of them. Antinuclear antibodies (ANA) were positive in 74.2% of PBC patients (speckled pattern in 52%). Anticentromere antibodies (ACA) were positive in 17 patients (18%) in whom they were determined (n = 94), and they were significantly associated with the presence of SSc (58.8% vs 1.3%, $p < 0.0001$). 52.7% of patients with PBC and some associated extra-hepatic symptom showed an non significant nailfold capillaroscopy alteration.

Discussion: SSc was common in PBC population, mainly in the limited cutaneous subset. ACA positivity was more frequent in PBC-SSc patients than in each disease in isolation. This association of PBC and SSc seemed to be more significant than coincidental and suggests that both diseases might have a common autoimmune basis. Moreover, ACA positivity was associated with an increase risk of developing any CTD. This study is addressed to evaluate specific immune profile of SSc and the presence of microvascular abnormalities in patients with PBC referring extra-hepatic signs of connective tissue disease. The observed results in sex, average age and duration of PBC suggested that there was not a selection bias in our study. In our PBC database, extra-hepatic manifestations were common, mainly sicca syndrome, Raynaud's phenomenon, and arthritis.. We found a trend to higher prevalence of nailfold capillary abnormalities in PBC patients with extrahepatic signs suggestive of CTD. The most frequent findings were diffuse capillary loop dilatation and megacapillaries, similar to those described in SSc patients, although they were not significant.

Conclusions: 1) Assessment of PBC patients should always include screening for SSc related symptoms, such as Raynaud's phenomenon. 2) Screening PBC patients for ACA is not mandatory but can be considered, especially in the presence of disease related symptomathology. 3) Nailfold capillaroscopy may be a useful indicator of CTD in patients suspected of having one of them.

IF-99
DIAGNOSIS OF AUTOIMMUNE DISEASES IN A QUICK DIAGNOSIS UNIT: PREVALENCE, CLINICAL CHARACTERISTICS AND FINAL DIAGNOSIS

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Objectives: Autoimmune diseases may affect multiple organs, and due to their complexity and difficulty in diagnosing, it is not uncommon for patients with symptoms and signs suggestive of these diseases to require hospital admission. However, since 4 years ago, the Quick Diagnosis Unit of our hospital has become a crucial Unit for diagnosing these complex diseases. Objectives: to analyze the prevalence of autoimmune diseases diagnosed in a Quick Diagnosis Unit. To analyze the main reasons for referral to our Unit and to describe the final diagnoses in these patients.

Material and method: A total of 2847 patients were visited in our Unit from November 2008 to May 2012. We retrospectively analyzed the epidemiological and clinical features of patients with autoimmune diseases, which were classified as systemic or organ-specific autoimmune diseases.

Results: A final diagnosis was reached in 2681 patients (166 patients were lost to follow-up). Autoimmune Diseases were diagnosed in 199 (7.4%) patients. Of the 199 patients with autoimmune diseases, 126 (63%) were women and 73 (37%) were men, with a mean age at diagnosis of 55.66 years (15-94). Patients were mainly referred by the emergency department (49%) and primary care centers (40%). The main clinical reasons for referral were constitutional syndrome in 31 patients (16%), skin lesions in 28 patients (14%), fever in 21 (11%), cytopenias in 17 (8%), other laboratory abnormalities in 11 (5%), arthralgias/arthritis in 16 (8%), headache in 12 (6%), polymyalgia in 9 (4.5%), myalgias in 8 (4%), diarrhea in 7 (3.5%), peripheral adenopathies in 5 (2.5%) and abdominal pain in 4 (2%). Autoimmune diseases were classified as systemic in 140 (70%) patients and organ-specific in the remaining 59 (30%) patients. The main systemic autoimmune diseases diagnosed were polymyalgia rheumatica in 37 (26%) patients, vasculitis in 30 (21%) patients, systemic lupus erythematosus in 19 (14%), rheumatoid arthritis in 15 (11%), sarcoidosis in 7 (5%), inflammatory myopathies in 4 (3%) and idiopathic thrombocytopenic purpura in 3 (2%) patients. Systemic vasculitis included Horton's disease in 13 patients, small vessel vasculitis in 9, panarteritis nodosa in 3, cryoglobulinemia and Takayasu disease in 2 patients, respectively and Wegener granulomatosis in 1 patient. The main organ-specific autoimmune diseases diagnosed were celiac disease in 15 (25%) patients, erythema nodosum in 14 (24%) patients, mesenteric paniculitis and pulmonary fibrosis in 4 (7%). The mean time to achieve diagnosis of the autoimmune disease was 38 days (0-525). After the diagnosis, patients were referred to specialized Departments (67%), mostly to the Systemic Autoimmune Diseases Department (44%).

Conclusions: Seven percent of patients referred to the Quick Diagnosis Unit of Hospital Clinic were diagnosed with autoimmune diseases. Most patients were referred by the emergency department and primary care centers. The main signs and symptoms were constitutional syndrome, skin lesions, fever and cytopenias. Most patients (70%) were diagnosed with a systemic autoimmune disease, with polymyalgia rheumatic being the most frequent, while the remaining 30% were classified as having an organ-specific autoimmune disease, with celiac disease being the most frequent.

IF-100
ANTICENTROMERE ANTIBODIES (ACA): ARE THEY SO SPECIFIC OF SYSTEMIC SCLEROSIS (SSC)?

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Objectives: To evaluate if ACA are so specific of the presence of SSc as suggested by an Evidence-Based Guidelines by ACR members or have a significant clinical heterogeneity as suggested in some recent studies.

Material and method: One hundred and twelve ACA positive patients were identified from January 1992 to December 2007 and were retrospectively analysed. We recorded demographical, clinical and laboratory data. Complete clinical information was available from 85 (76.78%) of them. ACA were detected using IIF with commercially prepared Hep-2 cells.

Results: 85 patients with ACA+ve were analyzed, 83 females and 2 males with a mean age of 38.2 y. The most common diagnosis was SSc, identified in 64 patients (75.29%). 48 of them had limited cutaneous (75%), 1 diffuse cutaneous (1.56%), 1 sine scleroderma (1.56%), and 14 pre-scleroderma (21.8%). In 46 of SSc patients (71.9%) SSc was the unique disease. Five SSc patients (7.8%) were associated to some other connective tissues diseases (CTD), Sjögren syndrome in 4, and rheumatoid arthritis in 1. 13 SSc patients (20.3%) were associated to other non-systemic autoimmune disease such as primary biliary cirrhosis in 10, autoimmune cholangitis in 2, and ulcerative colitis in 1. 5 ACA+ve patients (7.0%) do not have SSc diagnosis but they were diagnosed of some other CTD, Sjögren syndrome in 1, SLE in 1,temporal arteritis in 1, cutaneous lupus in 1 and rheumatoid arthritis in 1. In 7 patients (8.23%) with non-systemic autoimmune diseases we diagnosed 3 primary biliary cirrhosis, 1 idiopathic leukocytoclastic vasculitis, 1 autoimmune cholangitis and 2 autoimmune hepatitis. Finally, 9 patients (10.58%) did not suffer any autoimmune disease. Therefore, 21 out of 85 ACA+ve patients (24.70%) in our series were diagnosed of diseases other than SSc.

Discussion: In an "Evidence-Based Guidelines for the Use of Immunologic Tests" published in 2003 by ACR members, the authors concluded that ACA (determined by IIF) are rarely found in patients with CTDs other than SSc, or healthy controls, and thus they are very useful in the diagnosis of SSc. The result of our study showed that SSc was the most common disease associated with the presence of ACA but there were 24.70% of patients with diseases other than SSc, in agreement with more recent studies. Moreover, 10.85% of ACA+ve patients do not have any particular autoimmune disease.

Conclusions: 1) SSc was the most common disease associated with the presence of ACA, diagnosed in 75.29% of cases; 2) The limited cutaneous form was the most common of subset of ACA+ve SSc patients; 3) 24.70% of ACA+ve patients did not have SSc diagnoses; 4) A significant number of patients (10.85%) were not diagnosed of any particular autoimmune disease.

IF-101
SPANISH REGISTRY OF PATIENTS WITH BEHÇET'S DISEASE (REGEB): DESCRIPTIVE STUDY OF CLINICAL MANIFESTATIONS AND TREATMENT IN A COHORT OF 400 PATIENTS

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Objectives: To analyze the demographic and clinical manifestations of Behçet's disease (BD) in a large cohort of patients.

Material and method: The demographic and clinical features of BD in 400 patients who met the proposed criteria for the classification of BD (ISBD) from 14 Spanish centres were analyzed. This project was performed under the auspices of the Working Area of BD, on behalf of Systemic Autoimmune Diseases Group (GEAS) of Spanish Society of Internal Medicine (SEMI). This registry started in 2009, with a multicenter, consecutive, retrospective design.

Results: The cohort consisted of 219 female patients (54.8%) and 181 male patients (45.2%) with a mean ± SD age of 28.9 ± 12.3 years. The median delay in diagnosis was 24 months (range 0-420). There were 371 Caucasian (92.8%), 19 Arabic (4.8%), and 10 of other races (2.4%). The median follow-up was 139 months (range 0-439). The most common presenting manifestations were ulcers (total 75%; oral 35.6%, genital 2.5%, both 37%), followed by fever (6.5%), anterior uveitis (4.8%), arthritis (3.3%), retinal vasculitis (1.8%), erythema

nodosum (2%), aseptic meningitis (1.8%), posterior uveitis (1.5%), and pseudofolliculitis (0.5%). Other manifestations such as optic neuritis, arterial aneurysm, and inflammatory pseudotumor were less frequent. Regarding cumulative manifestations oral ulcers presented in all patients followed by genital ulcers (72.5%), pseudofolliculitis (47.3%), arthritis (39.5%), erythema nodosum (38.5%), ocular involvement (35.3%; anterior uveitis [27.3%], retinal vasculitis [12.5%], and posterior uveitis [8.3%]), venous thrombosis (18.5%; 4 cases of cerebral venous thrombosis, 2 retinal venous thrombosis, 3 inferior vena cava thrombosis, one patient with Budd-Chiari syndrome, and the remaining in form of deep venous thromboses), fever (17.8%), vasculitis (9%), aseptic meningitis (7.5%), pseudotumor cerebri (2.8%), stroke (2.8%), arterial aneurysm (1.6%), and other disorders of central nervous system in 11% of patients. Considering visual involvement, 18.3% of all patients have visual acuity deficit which represents 40.3% of all patients with ocular involvement. Regarding treatments received, the most frequently used were oral corticosteroids (79%) followed by colchicine (76.8%). Interestingly, 53% of patients required any immunosuppressive treatment during the follow-up. Oral anticoagulation was used in 16.3% of patients, anti-TNF therapies in 10.5% of patients and only 4.3% received thalidomide. In order of frequency, the main adverse effects of treatment were hypertension (6.8%), infections (6.3%), cataract (3.8%), osteopenia (3.5%), renal failure (2.3%), diabetes mellitus (1.8%), aseptic necrosis of femoral head (1%), and bone marrow toxicity (1%). Two patients died from the beginning of the registry.

Conclusions: The main clinical features of BD patients of our Registry are similar to those of other series with the same ethnic origin.

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IF-102
CORRELATION OF MARKERS IMMUNE NON-INVASIVE OF LUPUS ACTIVITY

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Objectives: Cytokines and chemokines are key immune mediators that have been put in relation with the pathogenesis of systemic lupus erythematosus (SLE). The objectives is the study of the profiles of secretion of the same present in plasma and urine in patients with SLE, and compare the immune response in patients with them with different degrees of activity of the disease.

Material and method: This is a prospective observational study of 1 year duration (December 2007-December 2008) in patients with SLE in our hospital. Inclusion criteria were as follows: patients referred to consultation with our hospital diagnosed with SLE. The different degrees of disease activity were determined by the SLEDAI score. To determine the presence of lupus nephritis (LN) underwent renal biopsy. Parallel samples were collected from blood and urine of 46 patients (8 with LN), mean age 43.5 years, (82.61% women, 17.39% men), divided into groups: Group 1: mild-moderate without renal involvement (13), Group 2: no severe renal impairment (25), Group 3: severe with renal involvement (8). A group of healthy volunteers of similar age and comparable sex distribution was recruited as control (n = 10). The measurement of 17 immune mediators (cytokines, chemokines and growth factors) in plasma and urine was performed using a Biorad® 17-plex kit on a Luminex® platform. Mediators data were analyzed together with clinical information.

Results: The active SLE disease is characterized by a pattern of expression of Chemokines MCP-1, GM-CSF, IL-8, MIP-1b in plasma and MCP-1and MIP-1b in urine. IL-8 and GM-CSF in plasma amounted more significantly when the disease is moderate without LN. (1) MCP-1 increases significantly, both plasma and urine, when there are serious LN [The Mann Whitney test also showed that these differences were significant ($p < 0.05$)], and correlates significantly with SLEDAI [C C Spearman Karber, p] = [0.383; 0.19]. (2.3) MCP-1 in plasma and urine [CC Spearman Karber, p] = [283; 0.56] correlate conversely with C3 and leukocytes in plasma levels.

Conclusions: We were able to identify a trace of expression of immune mediators in active SLE, characterized by elevated plasma and urine chemokines (MCP-1, GM-CSF, IL-8, MIP-1b). Correlation of MCP-1 and MIP1b in plasma and urine with SLEDAI. Levels of MCP-1 in plasma and urine are inversely proportional to C3 and leukocytes in plasma levels. Possibility of using these chemokines as markers predictive non-invasive of activity LN. Pharmacological modulation of these mediators could lead to clinical improvement in patients.

IF-103
FULFILMENT OF THE NEW CLASSIFICATION CRITERIA FOR CRYOGLOBULINEMIC VASCULITIS IN 311 PATIENTS WITH PRIMARY SJÖGREN SYNDROME

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Objectives: To analyze the fulfilment of the recently-proposed classification criteria for cryoglobulinemic vasculitis in a large series of patients with primary Sjögren syndrome (pSS).

Material and method: We evaluated 311 patients diagnosed with pSS consecutively admitted to our Department between 1990 and 2011. Inclusion criteria were the fulfilment of at least 4 of the classification criteria for SSp proposed by the American-European Study Group (2002) and repeated negative HCV serology. In all patients, we retrospectively evaluated the fulfilment of the 2010 classification criteria for cryoglobulinemic vasculitis, which included as mandatory criteria at least 2 positive results in cryoglobulin determination together with the fulfilment of at least two of the following items: I) positive questionnaire symptoms; II) cryoglobulinemic organ involvement (at least 3 of the following features: constitutional, articular, vascular and neurological involvement); and III) cryoglobulinemic-related laboratory abnormalities (at least 2 of the following: low C4 levels, monoclonal band and positive rheumatoid factor).

Results: Cryoglobulins were positive in 31 (10%) patients, with a mean cryocrit level of 1.7% (range 1 to 7.2%). Only in 5 patients, sufficient cryoprecipitate was available for analysis by immunofixation (usually around 5% of cryocrit). All cryoglobulins were classified as type II mixed cryoglobulinemia (monoclonal IgM k + polyclonal IgG). Cryoglobulins were positive in at least two determinations separated by an interval of at least 12 weeks in 16 (52%) patients. With respect to the criteria, positive questionnaire (positive answer for questions 1 and 2) was reported by 11 (35%) patients, cryoglobulinemic organ involvement was present in 27 (87%) and cryoglobulinemic-related laboratory abnormalities in 25 (81%) patients. Clinically, articular involvement was found in 17 (55%) patients, vascular involvement in 15 (48%), neurological involvement in 12 (39%) and constitutional involvement in 10 (32%); the main clinical features were arthralgias in 16 (52%) patients, purpura in 11 (35%), peripheral neuropathy in 11 (35%), arthritis in 9 (29%) and fever in 8 (20%). The most frequent immunological features were positive rheumatoid factor in 23 (74%) patients, low C4 levels in 14 (45%) and monoclonal band in 9 (29%). Eleven (35%)

patients fulfilled the item I, 8 (26%) the item II and 16 (52%) the item III. Fulfilment of cryoglobulinemic classification criteria was confirmed in only 10 (32%) patients (cryoglobulins positive at least in 2 determinations together with fulfilment of at least 2 of the 3 items). Disease activity index measured with the ESSDAI showed a mean score of 9.13 for patients with negative cryoglobulins, 17.48 for those with positive cryoglobulins without cryoglobulinemic vasculitis and 30.40 for patients who fulfilled the criteria for cryoglobulinemic vasculitis ($p < 0.0001$).

Conclusions: Although the prevalence of cryoglobulinemia in a large series of patients with pSS was around 10%, fulfilment of the recently-proposed classification criteria for cryoglobulinemic vasculitis was confirmed in only 3% of pSS patients. The main reason was that more than 50% of pSS patients with cryoglobulins had only one positive determination during the follow-up, suggesting that the presence of cryoglobulins in pSS is a dynamic immunological phenomenon. Only one of each three patients with pSS and cryoglobulins fulfilled the criteria for cryoglobulinemic vasculitis; these patients had a higher disease activity measured with the ESSDAI, with a cumulative score three times greater than that found in patients without cryoglobulins.

IF-104
INFLUENCE OF SEX ON THE PREVALENCE AND SEVERITY OF MANIFESTATIONS OF BEHÇET'S DISEASE: DATA FROM SPANISH REGISTRY OF PATIENTS WITH BEHÇET'S DISEASES (REGEB)

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Objectives: To determine the influence of the patient's sex on the clinical manifestations of the Behçet's disease (BD).

Material and method: The demographic and clinical features of BD in 400 patients who met the proposed criteria for the classification of BD (ISBD) from 14 Spanish centres were analyzed using a computerized database. Spanish Registry of patients with Behçet's disease (REGEB) was performed under the auspices of the Working Area of BD, on behalf of Systemic Autoimmune Diseases Group (GEAS) of Spanish Society of Internal Medicine (SEMI). This registry started in 2009, with a multicenter, consecutive, retrospective design. Presenting and cumulative demographic and clinical manifestations were compared according to the sex of the patients. Categorical variables were analyzed using the chi-square test or the Fisher exact probability test, as appropriate. Continuous variables were analyzed using the Student t-test or U-Mann-Whitney. A value of $p < 0.05$ was regarded as statistically significant.

Results: The cohort consisted of 219 female patients (54.8%) and 181 male patients (45.2%) with a mean ± SD age of 28.9 ± 12.3 years. We did not find significant statistically differences in age at diagnosis (F/M 29.8 ± 12.3 years versus 28.5 ± 12.4 years; $p = 0.17$), delay in diagnosis (59.6 ± 83.3 months versus 53.0 ± 79.6 months; $p = 0.11$), and follow-up (147.7 ± 104.1 months versus 165.6 ± 112.4 months: $p = 0.48$). Regarding presenting manifestations, there was no difference between sex distributions. When cumulative manifestations were compared, mucocutaneous manifestations were more frequent in female patients (34% versus 22.6%; $p = 0.04$). Conversely, ocular involvement was more frequent in males (43.5% versus 29.3%; $p = 0.004$; OR 1.85 95%CI 1.22-2.82). In fact, male patients had increased prevalence of posterior uveitis or retinal vasculitis as presenting manifestations (24.9% versus 14.4%; $p = 0.01$; OR 1.9 (95%CI 1.17-3.23). However, visual acuity damage was similar between male and female patients. Interestingly, venous thrombosis was more frequent in males (31% versus 12%; $p < 0.001$) Regarding immunosuppressive treatments, we did not find significant difference in the use of any of them (corticosteroids, cyclophosphamide, azathioprine, cyclosporine, methotrexate or chlorambucil). Anticoagulant treatment was used more frequently in male patients ($p = 0.001$).

Conclusions: In our Registry, sex did not determine the presenting manifestations of patients with BD. During the evolution, male patients had higher prevalence of ocular involvement and venous thrombosis.

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IF-105
DESCRIPTION OF CARDIAC MAGNETIC RESONANCE IMAGING IN 14 SPANISH PATIENTS WITH SYSTEMIC SCLEROSIS. PRELIMINARY RESULTS

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Objectives: To describe the baseline characteristics of patients with Systemic Sclerosis (SSc) regarding Cardiac Involvement (CI) findings in complementary explorations and at follow up and compare them with cardiac magnetic resonance imaging (CMRI) findings.

Material and method: Fourteen patients enrolled in a 413 subject cohort were selected according to clinical suspicion or documented CI by a senior consultant dedicated to outpatients with SSc between February 2002 and November 2011. Variables collected included: Sex, kind of SSc according to Leroy and Medsger's modified criteria; immunology; capillaroscopic patron; SSc non cardiac organic involvement; CI assessed by known clinical events or complementary explorations [Ecography, Chest X-ray, electrocardiography and stress single photon emission tomography (SPECT)]. Patients underwent CMRI using a 1.5T system (Symphony, Siemens, Germany), with a 4-element phased array antenna. Functional sequences of multislice cine-MRI were obtained.

Results: Thirteen patients (92.85%) were women; 8 (57.14%) had limited SSc (lcSSc) and 6 (42.85%) had diffuse SSc (dcSSc). Immunologically, antinuclear antibodies were present in all patients, anticentromere antibodies in 4 (30.76%) patients, and antitopoisomerase-I antibodies in 5 (35.71%) patients. Capillaroscopy showed slow patron in 7 (58.33%) subjects and an active patron in 5 (41.66%) subjects. Baseline non-CI events were: Digital ulcers 10 (71.42%), osteomuscular impairment 8 (57.14%), oesophagic involvement 13 (92.85%), interstitial lung disease 10 (71.42%), pulmonary arterial hypertension 5 (35.71%) and scleroderma renal crisis 0. As cardiovascular risk factors, systemic arterial hypertension was found in 4 (28.57%) patients and 2 (14.28%) were smokers. CI found was the following: pericardial involvement 2 (14.28%), ischemic cardiopathy 3 (21.42%), conduction alterations 6 (42.85%)

and radiologic cardiomegaly 2 (15.38%). Ecocardiographic findings were: left ventricle hypertrophy (LVH) in 5 (35.71%) patients, diastolic dysfunction in 9 (64.28%) patients; mean left ventricle ejection fraction was 62.14%, with only a patient under 50% of normal LVEF value. CMRI results were the following: > 1 CMRI alteration present in 12 (85.7%) patients, LVH in 3 (21.42%) patients, left ventricle dilatation and right ventricle hypertrophy were found in one patient (7.10%), pericardial effusion was present in 8 subjects (57.14%), left ventricle dyskinesia in 2 (14.20%) and right ventricle dyskinesia in one patient (7.10%); mean LVEF was 59.85% and only one patient was under 50% of LVEF normal value; mean right ventricle ejection fraction was 56.6%, mean left and right ventricle end-diastolic volumes were 96.78 ml/m^2 and 96 ml/m^2 respectively, mean left and right ventricle end-systolic volumes were 41.84 ml/m^2 and 51.37 ml/m^2; delayed contrast enhancement was found in 5 (35.70%) patients and ischemic cardiopathy was found in 2 (14.28%). One subject was diagnosed of non-compacted myocardiopathy.

Discussion: Utility of CMRI for CI assessment in SSc has been described by some authors. The longest work at the moment is a 2010 study from Hachulla et al. describing findings in CMRI in a French cohort. We conducted the first description of CMRI in Spanish SSc patients, regarding previously known alterations in complementary explorations and clinics, related to cardiac disease. Alterations in these patients were frequent, and the test revealed to be very sensible for detecting pleural effusion. Delayed contrast enhancement was more frequent than other studies and diminished ventricle ejection fraction was milder. This study is limited by the size of the sample and might be biased by the expert-depending selection criteria instead of a randomized selection.

Conclusions: CMRI seems to correlate well with other traditional cardiologic explorations in SSc patients when combined, but it may be more sensible than these tests when comparing them separately. Pericardial effusion, delayed contrast enhancement and LVH were the most common findings. Further studies may be conducted to make clear indications of when CMRI may be indicated in SSc patients.

IF-106
INTERSTITIAL LUNG DISEASE IN SYSTEMIC SCLEROSIS: CLINICAL PRESENTATION AND EVOLUTION DIFFERENCES BETWEEN PATIENTS WITH SCL-70 ANTIBODY VERSUS PM-SCL

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Objectives: To describe the characteristics of patients with Interstitial Lung Disease related to Systemic Sclerosis (ILD-SSc), with positive Scl-70 antibodies, compared to a group with positive PM-Scl antibodies.

Material and method: A prospective study was performed in 55 patients with ILD-SSc. Of them, 48 had positivity to Scl-70 (ILD-Scl-70+) and 7 were positive to PM-Scl (ILD-PM-Scl+), all diagnosed at Vall d'Hebron Hospital since April 1980 until December 2011. The following items were compared: demography, SSc subsets, fulfilling of ACR criteria for SSc, organ involvement, pulmonary function tests, nailfold capillary pattern and average follow up.

Results: There were significant differences between ILD-Scl-70+ and ILD-PM-Scl+ in the proportion of gender (women: 89.3% vs 42.8%, p < 0.001), Raynaud Phenomenon (RP) as first manifestation of disease (75.0% vs 57.1%, p < 0.001) and prevalence of articular involvement as first manifestation of disease different than RP (27.6% vs 71.4%, p < 0.001). The diffuse subset was significant greater on ILD-Scl-70 group (70.2% vs 0%, p < 0.001), as it was fulfilling of ACR criteria for SSc (97.9% vs 71.4%, p < 0.001) and mortality (38.3% vs 14.3%, p: 0.02). There were no differences in age of onset of SSc (41.6 yr vs 43.2 yr) and age at diagnosis of ILD-SSc (51.5 yr vs 52.7 yr). Neither there were differences in elapsed time between first SSc manifestation and ILD diagnosis (9.2 yr vs 9.4 yr) nor in follow up time (11.0 yr vs 16.0 yr). Organ involvement: No differences were described on cardiac involvement (87.2% vs 85.7%). However, differences were found in the presence of Digital Ulcers (DU) (68.1% vs 57.1%, p:0.01), musculoskeletal involvement (91.5% vs 85.7%, p < 0.001), inflammatory myopathy (6.4% vs 57.1%, p < 0.001), gastrointestinal (GI) involvement (97.9% vs 85.7%, p < 0.001), pulmonary arterial hypertension (PAH) (34% vs 28.6%, p: 0.01) and scleroderma renal crisis (SRC) (8.5% vs 0%, p < 0.001) in both ILD-Scl-70+ and ILD-PM-Scl+ groups, respectively. Pulmonary function test (PFT) and CT findings: There were no differences detected at starting FVC% (70.54 ± 20.65 vs 80.58 ± 11.68), starting FEV1% (76.55 ± 21.86 vs 88.94 ± 9.20), last FVC% (58.11 ± 20.72 vs 72.58 ± 15.6), last FEV1% (65.04 ± 21.39 vs 82.93 ± 18.27) nor at last DLCO/VA% (60.42 ± 18.07 vs 63.26 ± 14.52). Nevertheless differences in starting DLCO/VA% between both groups (70.89 ± 23.16 vs 89.11 ± 7.03, p: 0.04) were identified. Respecting CT findings, the ground glass opacities pattern was found to be different in both groups (61.7% vs 100%, p: 0.02). Capillaroscopy: slow pattern was the most prevalent in both groups with differences between them (66.6% vs 85.7%, p: < 0.001).

Discussion: Results in our study have shown similar outcomes to the ones previously published, which highlights that ILD-SSc has a different behavior depending on the immunologic profile. In it, we have found that PM-Scl + is related to male gender, more joint involvement, limited or sine subsets, less mortality, more inflammatory myopathy, has better starting DLCO/VA%, and more slow pattern in capillaroscopy. On the other hand, Scl 70+ predominates in female gender, presenting patients more RP as first manifestation of disease, more fulfilling of ARA criteria, DU, musculoskeletal involvement, GI involvement, PAH and more SRC.

Conclusions: We describe a cohort of 55 patients with ILD-SSc, associated to two different types of autoantibodies, either Scl-70 or PM-Scl, over a period of 30 years. As a conclusion we can say that clinical and spirometric features as well as mortality are different in both groups depending on their immunologic profile.

IF-107
POST-PARTUM EOSINOPHILIC ENTERITIS (EE): DESCRIPTION OF A NEW FORM OF PRESENTATION TRIGGERED AFTER CHILDBIRTH

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Objectives: Eosinophilic gastroenteritis (EG) is a rare condition, characterized by recurrent eosinophilic infiltration of gastrointestinal tissue, and eosinophilic ascites (EA) is the most uncommon manifestation. Etiology and pathogenesis are still unclear and its appearance during the postpartum period is a very exceptional situation, that allows hypothesize that pregnancy and childbirth can act as triggers. Objectives: describe a new clinical picture of EE triggered in the postpartum period in terms of epidemiology, diagnosis, symptoms, radiology, pathological and laboratory findings, recurrence, treatment and prognosis.

Material and method: In relation to a case of eosinophilic ascites during the postpartum period in a patient admitted in our center, we performed a scientific literature review based on a PubMed search, using the Medline subheadings and key words "Eosinophilic

Enteritis", "Eosinophilic Gastroenteritis", "Eosinophilic Ascites", "Pregnancy", "Post Partum", "Delivery", "Childbirth" and "Labor".

Results: In addition to our case, we found three reports about this topic. Epidemiology: Women were aged between 20 and 36 years old. Except one of them with history of asthma, they were healthy women. Two of them were taking PPI and oral iron, but neither of which has been previously implicated in EE. Onset of diagnosis: One of them developed symptoms after first pregnancy. One of them developed same symptoms after first and second pregnancy. Other 2 women were diagnosed after second and fourth pregnancies respectively, but both of them reported mild gastrointestinal symptoms after previous pregnancies. Symptoms appeared during the second, fourth and tenth weeks postpartum. Symptoms: All of them reported abdominal pain, nausea, vomiting and diarrhea. One woman mentioned progressive dysphagia, being diagnosed of eosinophilic esophagitis. Two of them reported abdominal distension with ascites. All of them remain asymptomatic between or after pregnancies. Radiological findings: Besides ultrasonography findings of ascites, Computed tomography scan revealed jejunal thickening in two cases. Pathological study: In two cases with ascites, diagnostic paracentesis revealed significant eosinophilia. Only in one case, esophageal and gastrointestinal biopsies were diagnostic. Laboratory studies revealed in all cases an elevated absolute eosinophil count. Treatment and prognosis: All cases were treated with corticosteroids with complete response. Any complication was described about pregnancy, labor or neonate.

Discussion: Taking into account our patient, there are a total of four scientific papers that describe cases of women diagnosed with Post-Partum EE. One case referred a history of allergic asthma, but the other women were previously healthy and not treated with medicines or drugs that could do suspect an allergic reaction. Other possible underlying causes were ruled out such as parasitic infections, malignancy or vasculitis. Most gastrointestinal symptoms repeated in each pregnancy and women remain asymptomatic between them. In all cases except one, a firm diagnosis of EE was established based on compatible clinical, analytical and pathological criteria. All women had a satisfactory response to oral steroids in tapering.

Conclusions: Despite the limited scientific evidence about this entity due to its exceptional character, detailed analysis of the reported cases make it possible to hypoyhesize the labor as a firm trigger of puerperal eosinophilic enteritis, which can manifest in any clinical variants, with recurrence after each pregnancy, but with a satisfactory response to oral steroids and apparently without any reported risk for pregnancy, childbirth and newborn.

IF-108
PPP SYNDROME (PANCREATITIS, PANNICULITIS AND POLYARTHRITIS): REVIEW OF THE ETIOLOGY, CLINICAL PICTURE AND PROGNOSIS IN A SERIES OF 34 CASES

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Objectives: PPP syndrome (pancreatitis, paniculitis and polyarthritis) is a rare disease characterized by liquefactive necrosis of the subcutaneous fat, polyarthritis and intraosseous fat necrosis, that may constitute the first evidence of a pancreatic illness. Objectives: to delineate the clinical picture of this rare process, with particular emphasis on the etiology, clinical presentation and prognosis.

Material and method: We recruited a patient with PPP Syndrome and performed a PubMed search (PubMed database, Nat. Library of Med.) for articles published until may-2012, using the Medline subheadings and key words "pancreatitis" or "pancreatic disease," "panniculitis," "arthritis," and "intraosseous fat necrosis." Only English-, French-, and Spanish-language reports were selected for review. We included only those cases that were sufficiently detailed to be analyzed.

Results: Including our patient we found 34 cases of PPP Syndrome who meet the inclusion criteria. Twenty five of them (73.5%) were men and 9 (26.5%) were women (male-female ratio of 2.8), with a mean age at diagnosis of 52 years old (range: 10-84). Fifty percent patients were younger than 50 years old and 58.8% (20/34) had a history of alcohol abuse, past o present. The underlying pancreatic disease was acute pancreatitis in 50% (17/34) of them, chronic pancreatitis in 44.1% (15/34) and pancreatic tumor in 5.9% (2/34). Fifteen of all (44%) had a pancreatic pseudocyst, and all of them showed persistently high pancreatic enzyme levels. Surprisingly, only 38.2% had severe abdominal pain at the onset, while the rest (21/34) were not afflicted or pain was mild, making initial diagnosis of pancreatic disease difficult. The most common presentation of panniculitis was tender or painless erythematous nodules usually located at distal parts of the lower extremities (around the ankles and pretibial regions) and in 26% (9/34) progressed to abcesification with a creamy purulent-appearing oily material secretion, due to liquefaction fat necrosis. The most commonly affected joints were ankles, knees, wrists, elbows and, less commonly, the small joints of the fingers. In most patients symptoms were transient, but an evolution to chronicity was observed in a 29.4% of the cases (10/34). Characteristic radiological finding were multiple osteolytic lesions, loss of joint space and sometimes periostitis. MRI showed the best sensitivity and specificity, but was only performed in 8 patients and the lytic lesions correlated pathologically with areas of extensive intramedullar fat necrosis and trabecular bone destruction. A total of 10 (29.4%) patients died because of this process.

Discussion: To date we have found 34 cases of well referenced PPP Syndrome. The pathogenesis is still unclear, although the most widely accepted hypothesis suggests that the release of pancreatic enzymes (including lipase, amylase, trypsin, and phospholipase A) from a diseased pancreas into the systemic circulation, leads to lipolysis and secondary inflammation in several tissues, including the synovium and bone marrow. The main treatment for PPP syndrome is the control of underlying pancreatic disease and drainage or preservative surgical intervention for a pseudocyst if it is present, since there is some evidence that there may be communication between the pancreatic and the vascular stream. The prognosis is poor, about one third of patients die, so early diagnosis is essential.

Conclusions: We present the clinical features of a series of 34 patients diagnosed with PPP Syndrome, reviewing their causes, symptoms, radiological findings and development as well as discussing the most likely pathophysiological hypothesis at present.

IF-109
WORK STATUS IN PATIENTS WITH CHRONIC FATIGUE SYNDROME

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Objectives: To analyze the clinical differences and the score scales for assessing fatigue in CFS patients by status of employment.

Material and method: Sectional study of consecutive cases on a population-based registry. Scope: University Hospital. Subjects: Patients diagnosed with CFS. Study period: January 2008-March 2012. Inclusion criteria. Diagnosis of CFS according to Fukuda criteria. Acceptance of participation in the study through informed consent and knowledge of the labour situation at the time of diagnosis (active and inactive). Exclusion criteria: housewives, unemployed patients and patients who do not work. Variables: socio-demographic: age, sex, employment status. Clinics: fatigue characteristics (age onset, duration, level of fatigue), presence of unrefreshing sleep, recurrent headache, cognitive symptoms, neurological symptoms, autonomic dysfunction. Questionnaires: the impact of fatigue, fatigue strength, quality of life SF-36.

Results: We included in total 1,124 CFS patients of which 293 subjects (26%) were active. The rate and severity of both cognitive and neurological symptoms as well as autonomic dysfunction were higher in inactive patients ($p < 0.05$). The age of onset of fatigue and pain was back in inactive patients ($p < 0.05$). The intensity of fatigue was higher in inactive patients ($p < 0.05$). Inactive patients scored higher on the scale of impact of fatigue (globally and in the subscripts physical, cognitive and psychosocial) and the intensity scale fatigue ($p < 0.05$). In the questionnaire of quality of life scores were lower in inactive patients ($p < 0.05$).

Discussion: The symptomatology of CFS makes a major limitation in the activities of both physical and intellectual dominance, which will determine the activities of working life and also the personal and social life.

Conclusions: There is a very high percentage of disabled labour in patients with CFS. Patients who were in employment status of inactivity had increased neurological symptoms and higher scores on the impact of fatigue and reduced quality of life. Mutua Madrileña Scholarship, 2007.

IF-110
CHRONIC FATIGUE SYNDROME IN MEN

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Objectives: To evaluate the clinical characteristics in men with CFS and make a comparative study against women.

Material and method: A total of 1309 CFS patients (119 men and 1190 women) were diagnosed upon Fukuda criteria in the CFS Unit, Hospital Valle d'Hebron (Barcelona, Spain). Both sexes are evaluated to personal characteristics, clinical blocks grouped by symptomatic co-morbidities and the scores on the questionnaires of fatigue, pain, quality of life and cognitive dysfunction. We performed a comparative study between the men versus females for all clinical variables. Differences were considered significant at p-value < 0.05.

Results: The mean age of 43 years in men CFS and the onset of symptoms of 34 years, both ages being significantly lower than in women (48 and 37, respectively). 30% of the women are single (15%) and 32% have a skilled labor (20%). 18% of men with CFS have a history of chronic pain compared to 28% in women. The most common trigger is the infectious in men (27% vs 13% in women, in which the most common is a stressful life event). Widespread pain (78% men - women 91%), muscle contractures (83% men, women 90%), and myofascial syndrome (57% men - women 76%) are less common in men ($p < 0.001$, 0.034 and < 0.001, respectively). Dizziness and sexual dysfunction are the only changes that show gender differences, being less common in men. The immune symptomatology is less common in men than in women: Raynaud's phenomenon (78% in men vs 91% in women), morning stiffness (76% in men vs 84% in women), migratory arthralgias (79% in men vs 86% in women), drug allergy (16% in men vs 25% in women), allergy to metals (7% in men vs 17% in women), facial edema (2.5% in men vs 8% in women), candidiasis (12% in men vs 72% in women). In the pathology of sleep, nightmares and insomnia are less common in men. Fibromyalgia is less common in women than men (29% vs 58%, $p < 0.001$). The physical function subscale of the scale of impact of FMG is more affected in men. Lowest score was observed in men, in somatization. Sensory and affective dimensions of pain are lower in men.

Discussion: The SFC is exceptional in man. It is characterized by a minor impact of pain and quality of life.

Conclusions: 1. In our series of patients with CFS, 9% are male (% lower than in previous studies because it speaks of an allocation of up to 25%). 2. Based on our results, the "profile" of CFS men to men is the young, single, with a specialized job and an infectious trigger. Have less muscle and immunological symptoms that CFS men and a lower association of fibromyalgia. Mutua Madrileña Scholarship, 2007.

IF-111
QUALITY OF LIFE IN PATIENTS DIAGNOSED WITH CHRONIC FATIGUE SYNDROME

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Objectives: The aim of study is to determine the alteration of the quality of life in CFS patients and the factors associated with it.

Material and method: Prospectively included patients who met diagnostic criteria for the diagnosis of Fukuda CFS. All patients were evaluated quality of life questionnaire through the Karnofsky performance status (KF) and the SF-36 with eight decatipes specific and general health both physically and mentally. Symptoms of fatigue were measured using the fatigue impact scale (EIF) in versions 40 and 8 items and the scale of intensity. Anxious and depressive symptomatology was assessed with the scale of hospital anxiety-depression (HAD) and pain through the McGill questionnaire, with its social and sensory. To study the association between quality of life with fatigue, anxiety, depression and sleep dysfunction, we used the Spearman correlation coefficient.

Results: In total were 1,309 CFS patients (119 males and 1,190 females), mean age 47 years. The age of onset of fatigue was 37 years and the duration of fatigue was 104 months. Mean scores on the dimensions of the SF-36 were: physical function 32, 4.7 physical role, bodily pain, 20, 23.1 general health, vitality, 14.6, 32.1 social function, role emotional, 41.4, health Mental 42.9, overall physical health and overall mental health 25.7 34.1. The mean scores were 63.9 KF. The mean scores of the scales of impact of fatigue: EIF overall score, 129 cognitive PIT 32, PIT 35.3 physical, social EIF EIF-8 62.3 and 25. The mean scores 10.8 HAD anxiety, HAD depression 10.8. And mean scores on the sensory and affective dimensions were respectively 18.4 and 7.1. A good correlation was found with negative character of fatigue, anxiety-depression and the dimensions of pain and quality of life.

Discussion: In the assessment of CFS, it is important to assess the deteriorating quality of life through the health questionnaire SF-36.

Conclusions: In CFS, there is a significant change in the quality life through health questionnaire SF-36 and that will come conditioned by the levels of fatigue, anxiety, depression and dimensions of pain. Mutua Madrileña Scholarship, 2007.

IF-112
IMPACT OF FIBROMYALGIA IN PATIENTS WITH CHRONIC FATIGUE SYNDROME

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Objectives: Assess whether there are differences in the clinical assessment of fatigue in CFS patients associated to fibromyalgia (FM).

Material and method: Sectional study of consecutive cases on a population-based registry. Scope: University Hospital and Private Medicine Centre. Subjects: Patients diagnosed with CFS. Study period: January 2008-March 2012. Inclusion criteria. Patients diagnosed with CFS according to Fukuda. Variables: socio-demographic – age, sex, clinics-FM comorbility, fatigue characteristics, presence of unrefreshing sleep, recurrent headache, cognitive and neurological symptoms and autonomic dysfunction. Questionnaires: the impact of fatigue, fatigue strength, quality of life-SF-36, FM diagnosis according to the ACR criteria 1990.

Results: We included in total 1309 patients, which 1185 were women (mean age: 47.4 ± years). In 727 CFS patients (55.7%) were associated with FM. The onset of fatigue and pain was back in FM patients ($p < 0.05$). The level of fatigue is greater in patients with FM ($p < 0.05$). Patients with CFS and FM have a higher incidence of recurrent headache, restless leg syndrome, nightmares and sleep paralysis ($p < 0.05$). The percentage of patients and the severity of both cognitive and neurological symptoms, as well as autonomic dysfunction is greater in patients with FM associated ($p < 0.05$). FM patients scored higher on the scale of impact of fatigue ($p < 0.05$) and had worse results in the quality of life questionnaire ($p < 0.05$) in all except decapitates rating scale that evaluates the physical role.

Discussion: In the study with CFS patients, it is important to assessment of comorbid phenomena, such as FM, which determined a greater functional impairment and quality of life of these patients.

Conclusions: FM comorbility worden clinical parameters, fatigue and perceived quality of life in patients with CFS. Mutua Madrileña Scholarship, 2007.

IF-113
COMORBID CONDITIONS IN A LARGE POPULATION OF CHRONIC FATIGUE SYNDROME PATIENTS IN SPAIN

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Objectives: The aim of the study is to evaluate the comorbid phenomena associated in a large population of CFS patients.

Material and method: Prospectively study included patients who met the Fukuda criteria for the diagnosis of CFS. We study the various comorbid phenomena associated according to diagnostic criteria such as fibromyalgia, according to the diagnostic criteria of American College of Rheumatology 1990.

Results: In total of 1309 CFS patients (119 males and 1190 females), mean age 47 years, time at onset of fatigue symptoms was 37 years and the time of duration of fatigue was 104 months. It was found restless legs syndrome in 35.5%, sleep paralysis syndrome in 16.3% and sleep apnea syndrome in 30.3% of all studied subjects. Fibromyalgia was associated in 55.7%, regional myofascial syndrome in 65.3%, 80.9% had dry syndrome, 53% had degenerative spinal disease, 50% had tendinitis, dyslipidemia was present in 40% of cases, multiple chemical sensitivity in 24.3%, anxiety disorder in 70%, hypermobility in 30%, 5% had endometriosis and thyroid disorders hypothyroidism, hyperthyroidism and thyroid cysts in 16%. All CFS patients had two comorbid phenomena in 31% of cases, 3 comorbid phenomena in 35% of cases and more than 4 comorbid phenomena in 14% of cases.

Discussion: Comorbid phenomena such as fibromyalgia, dry syndrome and multiple chemical sensitivities should be measured and quantified in the studies with CFS patients.

Conclusions: Patients diagnosed with CFS, with the great range symptomatic muscular, cognitive, autonomic and immune systems, have a large number of phenomena that are important comorbid valuation, such as fibromyalgia, dry syndrome, metabolic syndrome and multiple chemical sensitivity. Mutua Madrileña Scholarship, 2007.

IF-114
THE IMPACT OF FATIGUE AND FIBROMYALGIA ON SEXUAL DYSFUNCTION IN WOMEN WITH CHRONIC FATIGUE SYNDROME

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Objectives: To evaluate sexual dysfunction in women with CFS and explore correlations with fatigue, cognitive and neurological symptoms as well as neurovegetative syndromes, and concomitant fibromyalgia, Sjögren's syndrome, and myofascial pain syndrome.

Material and method: Six-hundred-and-fifteen women diagnosed with CFS were consecutively recruited in a specialized unit. We collected socio-demographic data, performed a thorough clinical history, and analyzed type and degree of sexual dysfunction using the Golombok Rust Inventory of Sexual Satisfaction (GRISS) and impact of fatigue by Fatigue Impact Scale (FIS).

Results: Patients with more intense fatigue, a higher number of cognitive, neurological, and neurovegetative symptoms, and concomitant fibromyalgia, Sjögren's syndrome, or myofascial pain syndrome reported less frequency, satisfaction, and sensuality in their sexual relations and more avoidance, vaginismus, and anorgasmia. The differences in all cases were statistically different ($p < 0.05$). Those with concomitant fibromyalgia or Sjögren's syndrome reported less sexual satisfaction and sensuality and more vaginismus and anorgasmia. Sjögren's syndrome and myofascial pain syndrome both correlated strongly with avoidance ($p < 0.001$).

Discussion: In the study with CFS patients, it is important to assessment of comorbid phenomena, such as FM, which determined a greater functional impairment and quality of life of these patients.

Conclusions: Sexual dysfunction is greater in CFS patients with a higher number of cognitive, neurological, and neurovegetative symptoms, concomitant fibromyalgia, Sjögren's syndrome, or myofascial pain syndrome, and more intense fatigue. Further studies are needed to analyze how both physical and psychosocial factors determine the impact the sex lives of CFS patients and their partners.

IF-115
ALEXITHYMIA INFLUENCE ON FATIGUE PERCEPTION IN CHRONIC FATIGUE SYNDROME

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Objectives: To evaluate the influence of alexithymia on CFS severity in a sample of adult CFS patients.

Material and method: The sample consisted of 102 patients. All the patients (age 46.9 ± 9.2; 94.1% women) received CFS diagnoses according to Fukuda criteria. Alexithymia was assessed with the Toronto Alexithymia Scale (TAS). Additionally, the patients completed the FIS-40, the HAD and the STAI-Anxiety state and trait scales to assess the fatigue, depression and anxiety severity.

Results: 43 CFS patients (42.2%) fulfilled criteria for alexithymia and the TAS mean score was 56.8 ± 12.7. When comparing alexithymic with non-alexithymic patients, the alexithymic ones reported more fatigue (FIS-40) (138.1 ± 17.2 vs 126.1 ± 21.3; p = 0.003), anxiety (STAI-State) (38.8 ± 13.7 vs 28.5 ± 14.3; p = 0.001), and depression (HAD-Depression) (13.0 ± 3.9 vs 10.0 ± 5.1; p = 0.002). TAS was related with fatigue severity in the linear regression analysis (b = 0.62, SE = 0.15, p < 0.001).

Discussion: CFS is important to assess the psychopathological phenomena such as alexithymia which has been little studied to date.

Conclusions: Alexithymia presence may be a negative prognosis factor in CFS patients and it should be considered in its treatment.

IF-116
AUTOLOGOUS STEM CELL TRANSPLANTATION FOR SEVERE REFRACTORY SYSTEMIC LUPUS ERYTHEMATOSUS WITH LUPUS NEPHRITIS: REMOTE OUTCOMES

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Objectives: Systemic lupus erythematosus (SLE) is a multisystem disease characterized by abnormal production of autoantibodies and tissue deposition of immune complexes leading to a diverse array of clinical manifestations, particularly renal disease. A new approach to the treatment of SLE with lupus nephritis refractory to conventional immunosuppression with high risk of early death, is re-setting of the immune system and induced self-tolerance by high-dose immunosuppressive therapy (HDIST) with autologous stem cell transplantation (ASCT). The remote outcomes assessment was the aim of this study.

Material and method: Ten patients with severe treatment-refractory SLE with nephritis observed. All patients, who underwent high-dose immunosuppression and ASCT, were registered in the European Group for Blood and Marrow Transplantation (EBMT)/ European League Against Rheumatism (EULAR) database between 2001 and 2008. Previous immunosuppression included: pulse cyclophosphamide intravenous in all patients, azathioprine in 11, methotrexate in 4, cyclosporin A in 9, oral prednisolone 1 mg/kg/day and pulse methylprednisolone intravenous in all patients. Autologous stem cells were collected from the bone marrow (n = 4) or mobilized from peripheral blood with cyclophosphamide and granulocyte colony-stimulating factor (n = 11). Pre-transplant conditioning regimens included cyclophosphamide (n = 11), BEAM (n = 2), melphalan 140 mg/m^2 with etoposide 1,600 mg/m^2 (n = 2), antithimocyte globulin. All patients followed a standardized supportive care protocol. All patients were women aged from 18 to 36 years. Five patients had lupus nephritis class IV and 5 patients – class III (ISN/RPS criteria, 2003). Stem cells were collected from bone marrow in 1 and from peripheral blood in 9 patients. The short-term outcomes were assessed after 1 month. The long-term outcomes were assessed every 6 months after ASCT. Overall 5-years survival was analyzed using the Kaplan-Meier method.

Results: The short-term outcomes: in 6 patients (60%) partial remission, in 1 patients (10%) complete remission, in 1 patient 10%) disease activity decrease was achieved. Transplant-related mortality was 20% due to infection complications. Patient's scores on the SLEDAI, anti-ds DNA antibody level, ESR, proteinuria, creatinine clearance were significantly improved. The remote outcomes: in 6 patients (60%) partial remission, in 1 patient (10%) complete remission, in 1 patient (10%) disease progression was seen, the median follow up was 39.6 ± 6.9 month. The effect remained in the long-term period. The overall 5-years survival was 78%. All patients were independent of dialysis. Adverse events in short-term period: viremia and bacteremia with sepsis caused death in 2 patients, neutropenia – in 9, thrombocytopenia – in 5, enteropathy – in 1, mucositis – in 1, local bacterial infection – in 1 patient. Causes of deaths were in one patient CMV infection, in one patient bacterial sepsis. The deaths occurred on days +11 and +63. Adverse events in long-term period: moderate cytopenia – in 1 patient, herpes simplex – in 1, hyperuricemy – in 3, interstitial nephritis – in 2, in 1 patient secondary malignancy (renal cancer) developed.

Discussion: These results are in concordance with ongoing European experience: 5-year overall survival after ASCT is now 81% (2012). The control of clinical lupus activity was reflected by the relative falls of anti-dsDNA, normalization of complement levels and the possibility to reduce or withdraw corticosteroids in some patients.

Conclusions: The remote outcomes of severe treatment-refractory SLE with lupus nephritis by HDIST and ASCT were more effective than conventional therapy to achieve disease control.

IF-117
HOW DO WE DIAGNOSE AND TREAT LUPUS RENAL DISEASE?

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Objectives: Lupus nephritis affects more than half of patients with lupus erythematosus. Their presence has a great influence on the prognosis of these patients, increasing morbidity and mortality, largely because of the risk of chronic kidney disease requiring replacement therapy in just about 25% of cases. Objectives: to describe the clinical, analytical and therapeutic management of patients with Lupus Nephritis followed at Hospital Universitario de Fuenlabrada (HUFLR), both newly diagnosed and those diagnosed earlier, since its opening.

Material and method: Descriptive study of cases of Lupus Nephritis monitoring in Nephrology and Internal Medicine HUFLR services in the period between June 2004 and April 2012. Classic clinical and laboratory variables were statistically analysed.

Results: We followed 27 cases of Lupus Nephritis during this period, of which 81.5% are women. The age ranges from 17 to 64 years (X = 41). 55% (15 patients) were already diagnosed when they started monitoring in this hospital. The time from diagnosis varies from 1 to 37 years (X = 10). Proteinuria, edema and impaired renal

function were the most common reasons for consulting prior to diagnosis. The most common type is diffuse lupus nephritis (37%), followed by focal (14.8%), mesangial (11.1%) and membranous (11.1%). 7 patients (25%) have not been biopsied. 51.9% of patients are hypertensive, 5 had previous renal disease (2 nephrosclerosis, 2 preeclampsia and 1 renal carcinoma) and 9 (33.3%) have other autoimmune disease apart from lupus. 4 patients have antiphospholipid syndrome. 73% of patients have had sediment alterations during follow-up, 46% have leukocytes and over 50% hematuria. 77% of patients have had proteinuria, most of them (75%) in non-nephrotic range. 24% had positive antiDNA antibodies and in up to 64% hypocomplementemia has been objectified. Regarding induction therapy, most patients in which treatment is known, steroids and cyclophosphamide were the main choice. Remission after this treatment was achieved in 50% (in 30% failed remission and 20% unknown). Maintenance therapy is most often used together with mycophenolate mofetil and low dose steroids. Other treatments used were azathioprine, cyclosporine, and hydroxychloroquine. 70% of patients received osteoporosis prophylaxis. Only 5 patients (28.5%) developed new outbreaks during this period of treatment. 3 patients have required renal replacement therapy. None of the patients have died, although one patient was lost to follow-up.

Conclusions: The most common histological type is diffuse lupus nephritis. Proteinuria is the analytical alteration most frequently observed in our patients. There were a high percentage of hypertensive patients, whose control is a priority to avoid worsening prognosis. Our initial remission rate was low. However, only a few patients had relapses, and renal replacement therapy has been required in only 3 of them. Due to the short follow-up period, is not possible to us to exclude that in future the prevalence of outbreaks or osteoporotic complications will be greater than today.

IF-118
SPECIFIC FITNESS PROFILE TO EFFORT IN CHRONIC FATIGUE SYNDROME

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Objectives: This study assessed cardioventilatory adaptation, metabolic and hormonal among a group of patients with CFS and a control group using incremental exercise test repeated for 3 consecutive days (EEP).

Material and method: The sample comprised 75 patients with CFS (age 44.6 ± 7.5 years) and with (BMI 26.1 ± 4.6), and 50 sedentary control subjects (age 40.6 ± 10.7 years) and a (BMI of 25.6 ± 4.9). Both groups have performed an initial maximal exercise test and then after a week difference, we performed a specific test with supramaximal workloads for three consecutive days are adjusted parameters: cardioventilatories (oxygen consumption (VO_2), CO_2 production (VCO_2), FE final fraction of CO_2 ($FECO_2$) FeO_2 final fraction (FeO_2), equivalent respiratory O_2 (ERO_2), respiratory CO_2 equivalent ($ERCO_2$) and True O_2). Growth hormone (GH), cortisol, prolactin and ACTH were done. Biochemical analysis included glucose, uric acid, CPK and free fatty acids.

Results: The results obtained PEE with statistically significant differences in the values of VE, QR, FR, VO_2, $FECO_2$, VCO_2, O_2 True are significantly higher in the control group with no differences between days ($F = 17.48$; $p < 0.001$). Regarding FeO_2 values, the figures are significantly higher in the group of patients during the loading phase ($F = 14.3$; $p < 0.001$) with no differences between days. As for the parameters reflecting the ventilatory economy ($ERCO_2$ ERO_2) showed statistically significant differences higher values in the group of patients for the loads ($F = 7.75$; $p < 0.001$) with no differences between days. Regarding hormonal parameters observed with a statistically significant difference in the postexercise hypocortisolism in the control group with no differences between study days (($F = 6.18$ $p < 0.001$). As for the GH differences were not statistically significant although a clear trend towards lower values in the post-exercise in the group of patients with CFS.

Discussion: In CFS is very important to quantify the intolerance to physical exercise with ergometric parameters and biochemical testing.

Conclusions: Patients with CFS exhibit differences in adaptation to physical exercise from the point of view cardioventilatory and hormonal, showing a less economical ventilation and respiratory equivalents superficial FeO_2 higher and higher in the group of patients having a lower O_2 TRUE, reflecting a possible alteration of the alveolar-capillary exchange, or even a mitochondrial alteration to the cellular level. The hypocortisolism observed the group of patients after the stimulus of exercise may explain why these patients do not adapt adequately to stress.

IF-119
SARCOIDOSIS AND TUBERCULOSIS: TWO FORMS OF A SAME ENTITY?

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Objectives: Sarcoidosis and tuberculosis are two granulomatous entities that sometimes appear together in the same patient. This represents a diagnostic challenge and raises questions about their pathogenesis. We present two cases of sarcoidosis with subsequent development of tuberculosis. The objective is to discuss the association between these two entities.

Material and method: We describe two patients with demonstrated tuberculosis that were extracted from a group of 17 patients with sarcoidosis, followed up in a Systemic Autoimmune Diseases Unit in a tertiary Hospital.

Results: Case 1: Female 43 years, with pulmonary sarcoidosis histologically diagnosed, treated initially with corticosteroids (CS) and azathioprine, which was stopped for a year. 2 years later she developed fever and pulmonary infiltrates with poor response to antibiotic treatment. A bronchoscopy showed the presence of mycobacteria. Case 2: Male 76 years, with hemoptysis and dyspnea, negative microbiological tests and a CT scan showing areas of increased density in ground glass pattern. Poor response to antibiotic therapy. Bronchoscopy gave no results. High titers of angiotensin converting enzyme (ACE) detected. Sarcoidosis is suspected and CS was administered with good response. Some months later he developed fever, dysarthria and left hemiparesis. CSF analysis and MRI images were compatible with neurosarcoidosis. CS and mycophenolate was started with good initial response, but later on he suffered progressive neurological deterioration. Mycobacteria in CSF were detected.

Discussion: Although both entities share the development of granulomas, the presence of caseum and mycobacteria is pathognomonic of tuberculosis. However, some studies have also identified presence of Mycobacterium tuberculosis genome by PCR in sarcoid granulomas. The diagnosis of tuberculosis in a patient with previous diagnosis of sarcoidosis generates doubt about a secondary infection due to immunosuppression or just a primary tuberculosis from the beginning. The dilemma we propose is: are these two entities coincident in time or are they the same granulomatous disease caused by mycobacteria but with different forms of expression, depending on the host immune response?

IF-120
EPIDEMIOLOGY OF CRYPTOGENIC ORGANISING PNEUMONIA IN THE REGION OF OSONA, CATALUNYA (2000-2011)

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Objectives: The classification of idiopathic interstitial pneumonias has gained widespread acceptance. Cryptogenic Organising Pneumonia (COP) is one of several subtypes and represents what has also been called idiopathic bronchiolitis obliterans organising pneumonia. COP is a relatively rare disease, which is characterized for steroid responsiveness. For COP diagnosis is fundamental to rule out secondary causes of Organizing Pneumonia (SOP), like drugs, infections, malignancy, radiotherapy and autoimmune disorders. No recent studies in Catalonia that value the epidemiology, diagnosis and outcome. To determine the incidence, epidemiological features of COP and to characterize their clinical, radiology, diagnosis features. To describe outcome.

Material and method: A retrospective and descriptive study of COP in Consorci Hospitalari de Vic the region of Osona between 2000-2011 was conducted. Diagnose of the COP was based on clinical, radiology and histopathological criteria. The epidemiology, comorbility, clinical, radiological, bronchoalveolar lavage (BAL) features were described. Diagnostic method, biopsy samples, treatment and survival were also studied. Incidence was calculated. SOP cases were recorded for epidemiological reasons, but clinical and demographic features were not described. Secondary causes of pulmonary damage like radiotherapy and infections were excluded of the study. Statistic analysis was performed by SPSS.

Results: In our review, 19 patients were included with the diagnostic of OP. 15 COP (79%) and 4 SOP (21%). The mean annual incidence of overall OP was 1.33/100,000 inhabitants/year. While the mean incidence of COP was 1.05/100,000 inhabitants/year. Of COP cases, 10 (66.7%) were men and 5 (33.3%) women. The mean age was 68.6 ± 13.3 years. Most of the patients had been smokers (53.3%). 73.3% were HTA and 33.3% were diabetic. Clinical findings were: dyspnea 73.3% and cough 73.3% were the most common symptoms, followed by constitutional syndrome 60%, malaise 46.7% and fever 33.3%. A crackle was (60%) the most common sign. BAL were observed macrophages 45.7 ± 32.9%, lymphocytosis 27.4 ± 23.8% and neutrophils 22.7 ± 27.4%. The sample of lung tissue was performed by transbronquial biopsy 14 and videothoracoscopy 1 case. Diagnosis was confirmed by biopsy in 10 patients (73.3%); and the remainder (26.6%) were diagnosed by clinical evolution, radiological findings and after ruling out other causes. Delay in diagnosis was about 3.6 months (+/- 2.7m). The main radiologic manifestation was alveolar infiltrates 80% (lower lobe 53.3% and upper/middle lobe 53.3%); ground-glass opacification (53%) and nodule pattern (26.6%). All cases were treated with corticosteriods and 13.3% received associated treatment (ciclofosfamide 1 case, azatioprine 1 case). Hospital readmission was in 53.3% of cases. Only one case (6.6%) died in relation to the COP, due to pulmonary infection in corticotherapy context. Causes of SOP were haematological malignancy 75% and drug side effect 25%.

Conclusions: The incidence of COP is higher than previously reported in Spain. The COP is more common in men than in women and in sixth decade of life. More than half of the patients had been smokers and were HTA. Dyspnea and cough were the most common symptoms. Crackle was the most common sign. All patients were biopsied and diagnosis was confirmed in most cases. Chest CT scan evidenced in most cases alveolar infiltrates. Mortality was low like has been published before. In our study causes of SOP was predominantly haematological malignancy.

IF-121
VOGT-KOYANAGI-HARADA: SERIES OF 6 CASES IN A SPECIFIC UNIT OF UVEITIS AND SYSTEMIC AUTOIMMUNE DISEASES OF A INTERNAL MEDICINE DEPARTMENT

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Objectives: Describing the epidemiological and clinical features and treatment management of 6 patients diagnosed of Vogt-Koyanagi-Harada syndrome monitored in a specific reference of uveitis and systemic autoimmune diseases (SAD) of a Internal Medicine Department in a tertiary hospital.

Material and method: Descriptive retrospective study of six patients diagnosed of Vogt-Koyanagi-Harada disease according to American Uveitis Society modified criteria (VKH International Workshop Group, 1999-2001) (Katsimpris et al .Klinische Monatsblaetter fuer augenheilkunde. 2011;4:368-71) followed in a specific query of SAD and Uveitis between January 2006 and June 2012.

Results: 6 patients with VKH syndrome were identified in the database of uveitis and SAD Unit, 2 women and 4 men. The mean age of presentation is 49.33 years and there were no patients from other countries. The most common manifestation of the disease is uveitis, present in all cases. All had bilateral involvement, with a severe degree of activity (80% of cases as panuveitis). 3patients had meningitis, and one had deafness. Genetic study was performed in five of six patients, being DR4 positive (2) in one case. One patient had a complete form of the disease, three incomplete VKH disease and two were diagnosed as probable Vogt-Koyanagi-Harada disease. The patient performing a complete VKH disease was the most severely affected, presenting deafness and significant decrease in visual acuity despite treatment. Corticosteroids were used in all cases between 9 and 48 months, with a median of 19 months of treatment. In all the cases an immunosuppressive agent was precised, in 3 of them as coadjuvant because of lack of response to corticosteroids. The overall response was good, with only one case showing aftermath mentioned above despite treatment. Three patients had at least two recurrences, successfully managed with corticosteroids. The most common side effects of treatment was derived from the use of steroids, appearing diabetes, Cushing, acne and cataracts as a result of prolonged use of them. In one case cyclosporine had to be suspended for high blood pressure, continuing treatment with parenteral immunoglobulines.

Conclusions: Vogt-Koyanagi-Harada syndrome is a rare entity in our environment, with an age of presentation in our series (49.33 years) higher than previously reported in other series (Yamiki et al. Int Ophthalmol Clin. 2002;1;13-23). Men may be more affected. Extraocular manifestations of the disease are less frequent. There may a selection bias since 4 over 6 patients were derived from the Ophthalmology Department. VKH is a corticosensitive entity, with a median of 19 months of treatment. Three patients required immunosupresant drugs (especially cyclosporine) due to persistence of clinic (García et al. Rev Clin Esp. 2006;8;388-91). Only 1 patient had severe sequelae in the form of blindness (secondary to papillary atrophy) and deafness. Side effects derived from treatment are not infrequent, specially derived from corticosteroid prolonged therapy. Immunosupresant drugs such as azathioprine and methotrexate were employed as corticoid-sparing agents (Bordaberry. Curr Opinion Ophthalmol. 2010;21:430-5).

IF-122
THYROID DISEASE AND SJÖGREN

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Objectives: Study the prevalence of Thyroid disease in patients with a previous diagnosis of Primary Sjögren in order to prove the requirement of several tests and their management outpatient.

Material and method: We studied the patients of our monographic outpatient consult clinic of systemic diseases, with a previous diagnosis of Sjögren disease. It is a retrospective and observational study. We evaluated general clinical data (symptoms, diagnosis and therapy) in patients with Sjögren and then assessed the presence of Thyroid disease by performing image and laboratory tests to all of them.

Results: We included a total of 20 patients, 85% of them were women with a mean age of 66,05 years (36-90) They all had a positive parotid scintigraphy,25% positive AntiLa and 55% positive AntiRo. Main clinical manifest were arthralgias (55%), renal dysfunction disease (10%), cryoglobulins (10%) and hematological affection (25%), as previously described in other series. We studied the presence of thyroid lesions by performing ultrasonography or Computed Tomographic (CT) scan. We performed image studies to nine of our 20 patients. 77.7% had thyroid lesions and 30% of them were multinodular goiter. Then we studied if our patients had hormonal dysfunction or had presence of thyroid antibodies. All patients had thyroid hormones measurement and 25% showed to have low levels. 17% had presence of antibodies.

Discussion: Thyroid disease and specially hypothyroidism is related with Primary Sjögren disease probably because they share a common pathogenesis mechanism. Other studies have shown the association between both disease so it must be investigated thru clinical and laboratory assessment. Our results are similar to those in other studies, with an average of 30% of thyroid affection among patients with Sjögren disease.

Conclusions: 1. Thyroid disease must be assessed in patients with Sjögren disease. 2. We recommend performing ultrasonography, thyroid hormones and antibodies to all Sjögren patients.

IF-123
VOGT-KOYANAGI-HARADA SYNDROME

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Objectives: To describe two cases of syndrome Vogt-Koyanagi-Harada diagnosed in our department in the past year.

Material and method: Review of the clinical features, diagnosis, treatment and evolution of two cases of Vogt-Koyanagi-Harada syndrome diagnosed at our center last year.

Results: Case 1: 52 year old woman with no history of clinical interest that presents loss of vision, conjunctival injection and pain with ocular movements during the last five days. It is associated with severe headaches and tinnitus. Ocular fundus findings shows edematous and hyperemic papillae, posterior uveitis with serous retinal detachment in the posterior pole. Analysis of the cerebrospinal fluid showed 138 leukocytes/mm^3 (100% lymphocytes), proteins 35 mg/dl, and a glucose level of 45 mg/dl. No micro-organisms were identified. Magnetic resonance imaging of the head without contrast showed no abnormalities. The patient was treated with methylprednisolone 1 g/day for 5 days with disappearance of the headaches and tinnitus and improvement of her visual acuity. Case 2: man of 44 years with no history of interest that consults for a 6 days history of decrease in visual acuity, retroorbital pain, fever of 38 ºC and headache. Examination revealed Tyndall R +/L + +. Ocular fundus findings shows multiple yellowish choroidal lesions with serous retinal detachment mainly in the posterior pole. Hyperemic papillae. Analysis of the cerebrospinal fluid showed 147 leucocytes/mm^3 (100% lymphocytes) erythrocytes 3/mm^3, glucose 43 mg/dl, total proteins 95 mg/dL. No micro-organisms were identified. Magnetic resonance imaging of the head without contrast showed no abnormalities. Patient was treated with 1 g/day methylprednisolone for 3 days, with remission of neurological clinic and partial remission of ocular affectation but 20 days after, he consults again for aseptic meningitis despite treatment with prednisone 80 mg/day. Subsequently he was treated with cyclosporine with disappearance of clinical symptoms. Both patients are being followed by ophthalmology.

Discussion: Vogt–Koyanagi–Harada syndrome is an idiopathic, multi-system autoimmune disorder involves T-cell-mediated autoimmunity against melanocyte-associated antigens, characterized by bilateral granulomatous uveitis with neurologic, auditory and dermatologic manifestations. It is a very rare disease, in Europe accounts for 1.5-2% of endogenous uveitis. Diagnosis criterial included: 1. Absence of previous history of ocular trauma o surgery; 2. No evidence of other ocular diseases; 3. Early bilateral ocular involvement (With focal areas of subretinal fluid or serious retinal detachment) or late bilateral ocular involvement (depigmentation, sunset glow fundus, Dalen-Fuchs nodules and migration or accumulation of the pigmented epithelium of the retina); 4-Auditory and/or neurological symptoms; 5-cutaneous symptoms that appear during or after the neurological and ocular manifestations. May be classified as complete when all criteria are met; as incomplete when criterial 1, 2 and 3 plus 4 or 5 are met, or probable when only criteria 1, 2 y 3 are met. Our patients had both criteria of incomplete syndrome probably because de earlier of the diagnosis. Infectious diseases such as syphilis, tuberculosis, toxoplasmosis, fungal infections and AIDS should be ruled out during the early phases of the disease. Early and aggressive treatment with corticosteroids and/or immunosupressive drugs is essential to avoid the morbidity and complications that this disease has the potential to cause.

Conclusions: The difficulty of diagnosing this disease is probably due to its rareness and the fact that it is relatively unknown among the medical profession. Vogt-Koyanagi-Harada syndrome should always be considered whenever a patient has symptoms involving neurological, ocular, otorhinolaryngological and cutaneous manifestations. Early and aggressive treatment is essential to avoid the morbidity and complications.

IF-124
COMMON VARIABLE IMMUNODEFICIENCY SYNDROME: ANALYSIS OF A SERIES OF 48 ADULTS PATIENTS IN AN INTERNAL MEDICINE SERVICE

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Objectives: To analyze a series of 48 cases of common variable immunodeficiency syndrome in frequency and type of infection and its association with autoimmune diseases, neoplastic, among others.

Material and method: We analyzed 48 patients over 18 years, diagnosed with common variable immunodeficiency, by the WHO

classification, followed by the service of Internal Medicine and Immunology from 1984 to 2011.

Results: We included 48 patients, 24 males and 24 females. 30 of the 48 patients were diagnosed before the third decade of life. 100% of patients had some type of significant infection, respiratory focus being the most common, present in 46 of the 48 patients, followed by abdominal infection, present in 39 of our patients. 5 had some type of CNS infection and 17 patients infection of skin and soft tissue. Showed only 17% of infections with sepsis. In addition, we observed that 20 patients had associated autoimmune disease (8 autoimmune hemolytic anemia, 3 SLE, 4 and 6 vitiligo patients other autoimmune diseases). 6 of the 48 individuals developed various types of neoplasms. There was residual respiratory disease (bronchiectasis, pulmonary fibrosis, respiratory failure) in 40 patients, GI (malabsorption, maldigestion, lymphoid nodular hyperplasia) in 12 and liver 20. 94% of the patients received iv gammaglobulin, having side effects 17 of the 48 patients. 10 patients died, with a mean age at death of 41 years The cause of death was infectious in 5 (sepsis, pneumonia), tumor in 2, chronic liver disease in 1, another due to uncertain causes and 1 patient of unknown cause.

Discussion: Common variable immunodeficiency is a primary immunodeficiency that constitutes a major deficiency syndromes antibodies. The most important feature is the presence of hypogammaglobulinemia, especially at the expense of IgG. These patients have a high susceptibility to infections and is sometimes associated with autoimmune diseases and neoplastic diseases. The treatment of choice is the use of iv immunoglobulin and, although despite this treatment is not curative, their application along with an early diagnosis have improved survival and quality of life for these patients.

Conclusions: All of our patients had infections, particularly due to respiratory infections, followed by abdominal and cutaneous focus. In addition, we observed the association with autoimmune diseases, including SLE and autoimmune hemolytic anemia and neoplastic, as described in the literature. Treatment with gammaglobulin was chosen over 90% of patients. The cause of death in 50% due to infectious diseases.

IF-125
ECHOCARDIOGRAPHIC FINDINGS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: Cardiovascular disease in systemic lupus erythematosus (SLE) patients is highly prevalent, a fact often not etiologically correlated with the presence of traditional cardiovascular risk factors. Our goal was to describe the type and prevalence of echocardiographic findings in a cohort of SLE patients, cardiologically asymptomatic. We also compare the classical factors of cardiovascular risk and lupus activity data with echocardiographic findings in SLE patients without clinical cardiology.

Material and method: Observational and descriptive study of 72 patients with SLE, registered in the database installed on Internet (URL: www.registroles.es). The echocardiographic variables evaluated were the growth of cavities, pericardial effusion, pulmonary hypertension, valvular abnormalities and Libman-Sacks endocarditis. The traditional cardiovascular risk factors were family history of early cardiovascular disease, hypertension, diabetes mellitus, dyslipidemia, sedentary lifestyle and tobacco smoking, and lupus activity data were consumption of complement, C reactive protein (CRP), ESR and SLEDAI.

Results: Among the 72 patients 18 had a pathological echocardiography (25%), appearing almost valvular abnormalities (88.8%), 33.3% with growth of cavities and 20% with Libman Sacks endocarditis. The mean age was 39.8 years (SD 13.8) and 93% were female. Related to CVRF: 9.7% of patients had a history of early cardiovascular disease, 22.2% had hypertension, 4.3% diabetes mellitus and 41.7% dyslipidemia. 33.3% smoking and 68% had a sedentary lifestyle. In regard to the disease activity the mean was 6.5 for the RPC, 29.7 for ESR and 5.45 for SLEDAI, and 79% were hypocomplementemia C4 dependent and C3 dependent 33.3%. The relationship between echocardiographic abnormalities and age ($p = 0.01$) and family history of premature cardiovascular disease ($p = 0.03$) were statistically significant.

Discussion: Our patients had a prevalence of echocardiographic abnormalities, similar to that observed in previous studies, being the most frequent valvular abnormalities including Libman Sacks endocarditis. The high percentage of classic cardiovascular risk factors, particularly physical inactivity, dyslipidemia, and smoking attracs the attention given the low age of our patients. The degree of SLE activity was considerable, above all the complement consumption. However, we observed statistically significant only with the appearance of echocardiographic abnormalities with age and the presence of family history of premature cardiovascular disease, a fact that could explain by the low average age of our patients.

Conclusions: Cardiac structural alterations, even in the absence of clinical symptoms are common in lupus patients, mainly in those older and with family history of premature cardiovascular disease. The performance of an echocardiogram can be useful to detect subclinical disease in order to prevent clinical events.

IF-126
UVEITIS: ETIOLOGIC ANALYSIS OF 329 PATIENTS

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Objectives: To describe the etiology of 329 cases of uveitis.

Material and method: Retrospective etiologic analysis of 329 uveitis patients followed up between 2002-2012 by the Services of Ophthalmology and Internal Medicine of Cruces University Hospital (Barakaldo, Spain), a tertiary hospital with a catchment area of over 370,000 people.

Results: 329 uveitis patients (162 men and 167 women, mean age 44.6 ± 18,0 years) were studied and classified according to the uveitis pattern. Anterior uveitis (AU): 160 (48,8%) patients: 1) Acute recurrent and nonrecurrent unilateral AU (123, 37.5%): Herpes simplex (30), idiopathic no-HLA B27 (25), idiopathic HLA B27 (15), spondyloartropathies (15), Behçet's disease (10), Posner-Schlossman syndrome (8), varicella-zoster (4), cytomegalovirus (4), post-surgery (3), sarcoidosis (2), psoriasis (1), ulcerative colitis (1), Crohn's disease (1), SLE (1), temporal arteritis (1), rheumatoid arthritis (1), post-traumatic (1). 2) Acute bilateral AU (10, 3.0%): Idiopathic no-HLA B27 (7), psoriasis (1), TINU syndrome (1), SLE (1). 3) Chronic AU (27, 8,2%): Fuch's heterochromic cyclitis (11), idiopathic no-HLA B27 (9), ankylosing spondylitis (1), juvenile idiopathic arthritis (1), ulcerative colitis (1), phacogenic (1), Crohn's disease (1), psoriasis (1), breast carcinoma (1). Intermediate uveitis (IU): 28 patients (8,5%): Idiopathic intermediate uveitis/ pars planitis (23), sarcoidosis (3), probable tuberculosis (1), probable lymphoma-masquerade syndrome (1). Posterior uveitis (PU): 92 patients (28,0%): 1) Unilateral chorioretinitis (38, 11.6%): Toxoplasmosis (17), idiopathic unclassified chorioretinitis (5), cytomegalovirus (4), Bartonella henselae (3), syphilis (2), toxocariasis (1), varicella-zoster (1), tuberculous serpiginous-like choroiditis (1), progressive subretinal fibrosis syndrome (1),

ampiginous choroiditis (1), punctate inner choroidopathy (1), vasoproliferative retinal tumor (1). 2) Bilateral chorioretinitis (35, 10.4%): Punctate inner choroidopathy (9), multifocal idiopathic choroiditis (5), serpiginous choroiditis (6), unclassified idiopathic choroiditis (4), birdshot choroidopathy (3), multiple evanescent white dot syndrome (3), placoid choroidopathy (1), tuberculous serpiginous-like choroiditis (1), leptospirosis (1), sarcoidosis (1), breast carcinoma metastases - masquerade syndrome (1). 3) Retinal vasculitis (21, 6,4%): Idiopathic retinal vasculitis (9), Eales disease (5), Behçet's disease (4), primary frosted branch angiitis (2), probable tuberculosis (1). Panuveitis: 48 patients (14.6%): 1) Chorioretinitis panuveitis (13, 4.0%): Toxoplasmosis (4), chronic Vogt-Koyanagi-Harada (VKH) disease (4), idiopathic (2), Blau's disease (1), Lyme disease (1), sympathetic ophthalmia (1). 2) Vitritis panuveitis (9, 2.7%): Idiopathic (5), sarcoidosis (3), syphilis (1). 3) Retinal vasculitis panuveitis (4, 1.2%): Behçet's disease (2), sarcoidosis (1), idiopathic (1). 4) Exudative retinal detachment panuveitis (6, 1.8%): VKH disease (5), syphilis (1). 5) Unclassified panuveitis (16, 4.9%): Idiopathic no-HLA B27 (8), tuberculosis (2), sarcoidosis (2), ankylosing spondylitis (1), idiopathic HLA B27 (1), Behçet's disease (1), varicella-zoster (1).

Discussion: Uveitis is a major manifestation of a wide spectrum of diseases (infections, inflammatory eye-limited and systemic diseases, neoplastic) and diagnostic approach is often complex. Most patients can be classified into one of the twelve recognized clinical patterns of uveitis. Each pattern is frequently associated with certain etiologies, so identification of the pattern of uveitis is a helpful guide to decide the initial diagnostic plan.

Conclusions: Identification of the pattern of uveitis is a very helpful tool to guide uveitis initial diagnostic approach.

IF-127
SUSAC'S SYNDROME: A DIAGNOSTIC CHALLENGE

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Objectives: To present two new cases of Susac Syndrome and to review the existing literature regarding the clinical presentation, diagnostic tools and treatment strategies of this rare autoimmune endotheliopathy.

Material and method: Review of the clinical files of two patients with SS diagnosed in our center with special attention to the clinical, laboratory and image findings. These data were compared to the previously published SS series.

Results: Patient 1: 41 year-old female with recurrent vertigo episodes and sensorineural hearing loss that started at the age of 24. She presented 1 year later an episode of bilateral amaurosis with multiple branch retinal artery occlusions (BRAO) and retinal ischemia in the funduscopic examination (FE). Brain MRI showed multiple subcortical T2-hyperintense lesions that affected the white matter and corpus callosum. ANA, anti-dsDNA, anti-ENA and ANCA were negative. A S protein deficit, activated protein C resistance and V Leiden factor heterozygous mutation were detected. Under clinical suspicion of SS, oral anticoagulant therapy (OACT), oral glucocorticosteroids (GC) and oral cyclophosphamide (CYC) were initiated. CYC was later changed to azathioprine (AZA) due to lack of response and transient amenorhea. AZA only accomplished partial control of the disease and was changed to mycophenolate mophetil (MMF). These treatment accomplished clinical resolution with good tolerability. The patient remains well after 11 years of follow-up. Patient 2: 27 year-old male with recurrent episodes of transient bilateral amaurosis started at the age of 16. FE and fluorescein angiography (FA) showed multiple BRAO with retinal ischemia and periarteriolar staining. Borderline positive levels of anti-beta-2-glicoprotein IgG antibodies with negative anti-cardiolipin antibodies and positive lupic anticoagulant (isolated determination) were detected. ANA, anti-ENA, anti-dsDNA and ANCA antibodies were negative. Under a primary antiphospholipid syndrome diagnosis, OACT and aspirin, with lack of response. Eight years later he developed episodic vertigo and fluctuating encephalopathy. Brain MRI showed multiple demyelinating lesions affecting the subcortical white matter of both hemispheres and the corpus callosum. Auditive evoked potentials (AEP) were normal. After evaluation in our centre, OACT was suspended and MMF was initiated. After 12 months of follow-up, the patient remains asymptomatic.

Discussion: SS consists of the clinical trial of encephalopathy, BRAO, and sensorineural hearing loss. It is a rare disease (around 200 cases reported) usually seen in young women (3:1). Histopathological studies have shown endothelial lesion and thickening of arterial wall that cause vascular obstruction in absence of thrombi. These findings and the isolation of specific anti-endothelial cell antibodies, support the hypothesis of an autoimmune endotheliopathy. Diagnosis is made under clinical suspicion (although the full clinical trial may not be present at the beginning of the disease). MRI imaging, retinal and cochleo-vestibular evaluation provide useful support. Typical MRI findings are corpus callosum and subcortical white matter microinfarctions (central callosal involvement that is almost pathognomonic of SS). Typical findings in FE and AF are BRAO and periarteriolar staining. Audiometry and AEP can show a cochlear hypoacusia affecting lower frequencies. Treatment strategy remains controversial due to the lack of evidence-based therapeutic recommendations. In our experience MMF is a well-tolerated option that showed optimal control of the disease in our patients.

Conclusions: SS is a rare disease that consists in the clinical trial of encephalopathy, BRAO and sensorineural hypoacusia. The diagnosis is based on clinical findings and high index of suspicion should be kept in order to make an early diagnosis. MRI imaging can provide pathognomonic findings and FE, FA, audiometry and AEP findings support the clinical suspicion. Therapy is based on immunosupressive drugs, although there are not controlled trials to evaluate the best approach.

IF-128
LOW PLASMA APOPROTEIN-M LEVELS IN SEPSIS AND SEPTIC SHOCK PATIENTS. A PILOT STUDY

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Objectives: Apo-M is a carrier of sphingosine-1-phosphate (S1P), which is important for vascular barrier protection. It is a negative acute phase protein that decreases during infection and inflammation. The aim of our study was to determine the plasma concentrations of apoM during septic shock or sepsis, and correlate them to prognosis.

Material and method: We performed a pilot study from a subset of the cohort of patients and controls analyzed in previous studies by our group (Crit Care. 2010;14:435). This sample was comprised of 28 patients with septic shock, 28 patients with sepsis associated with community-acquired pneumonia (CAP) and 30 healthy controls. Plasma concentrations of ApoM was estimated by a sandwich ELISA based on two monoclonal rabbit human anti-ApoM antibodies (ABNOVA), and serum cytokine levels (IL-6, TNFa) were measured by ELISA kits (R&D Systems) in blood samples obtained at 24 h of admission to the ICU or hospital ward. Nonparametric tests were

Table 1 (IF-128). Summary of laboratory data in patients groups

	Septic shock (n = 28)	CAP-Sepsis (n = 28)	Controls (n = 30)	p value (SS versus CAP-sepsis)
Age, years	69 ± 10	67 ± 11	66 ± 9	NS
C-reactive protein (mg/L)	144 (20-390)	93 (28-167)	2 (0-4)	< 0.01
Apoprotein M (microM/l)	1.20 (1.05-1.40)	1.35 (1.18-1.46)	1.48 (1.26- 1.57)	< 0.05
Plasma IL-6 (pg/ml)	62 (15-130)	41 (0-92)	11 (0-38)	< 0.05
Plasma TNF-a (pg/ml)	38 (5-52)	19 (0-60)	2 (0-8)	< 0.05

used throughout the study. The Mann-Whitney U test was used for evaluating the difference between different groups, and Spearman's rank correlation coefficient for evaluating correlations. Laboratory data are expressed as mean and IQR. Statistical analysis was performed using SPSS 14.0.

Results: Apo-M levels were lower in patients with severe sepsis and shock than in sepsis patients with pneumonia, and both groups were highly significantly different from the control group ($p < 0.001$). Significant negative correlations to the acute phase marker CRP ($r = 0.34$, $p < 0.01$) and IL-6 ($r = 0.28$, $p < 0.01$) were observed.

Discussion: The negative acute phase protein ApoM have been used as a biomarker in coronary patients (Su et al. Clin Biochem. 2009;42:365-70). The observed significant decrease in apoM levels in patients with septic shock, and also in those with sepsis and pneumonia, suggests that apoM may be a useful marker for severity of disease and prognosis in severely sick patients.

Conclusions: The plasma concentrations of Apo-M were significantly reduced in response to septic shock and sepsis related to CAP. This decrease in Apo-M could be a new marker of the ongoing inflammatory response.

IF-129
VOGT-KOYANAGI-HARADA DISEASE: REVIEW OF NINE CASES

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Objectives: To describe the clinical manifestations of nine patients with Vogt-Koyanagi-Harada disease (VKHD).

Material and method: Retrospective cohort study of nine patients with VKHD diagnosed and followed up between 2002 and 2012 by the Services of Ophthalmology and Internal Medicine of Cruces University Hospital (Barakaldo, Spain).

Results: Patients are classified into three groups according to clinical course: 1) Four patients (three women and one man, aged 20-50) were referred with acute VKHD. Disease duration was less than one month. Three patients presented prodromal symptoms (headache, tinnitus, fever). Ophthalmological exploration revealed bilateral panuveitis with exudative retinal detachments confirmed by optical coherence tomography or angiography. All four cases showed impairment of visual acuity in both eyes. In two cases remission was achieved (with corticosteroids and corticosteroids plus cyclosporine, respectively) and treatment was stopped after one year. Two patients required long-term maintenance treatment with low-dose prednisone and immunosuppressive therapy (cyclosporine plus methotrexate and infliximab plus methotrexate, respectively). In all four patients visual acuity improved after treatment. 2) Four patients (women, aged 18-50) were referred with recurrent or chronic granulomatous bilateral anterior uveitis. Disease duration was 2, 9, 10 and 12 years respectively. In all cases, ophthalmological examination revealed bilateral granulomatous panuveitis with prominent chronic anterior uveitis with posterior synechiae and chorioretinal atrophy/depigmentation; in two cases typical "sunset glow" fundus was found. Patients didn't report any symptom suggestive of the acute stage of VKHD (which was probably oligosymptomatic or misdiagnosed). There were no chronic skin depigmentation signs (such as vitiligo or poliosis). One patient refused treatment and discontinued follow-up; three patients received low-dose oral prednisone plus azathioprine or methotrexate, with good control of ocular inflammation. 3) One patient (woman, aged 35) presented unilateral chorioretinitis (left eye) that was treated with high-dose oral prednisone with good response. She was referred two years later with unilateral (right eye) panuveitis with exudative retinal detachments; left eye showed chorioretinal depigmentation suggestive of chronic VKHD. She was treated with oral prednisone and azathioprine, with good control of ocular inflammation.

Discussion: VKHD is a bilateral panuveitis that is associated with systemic manifestations that include meningismus, headache, tinnitus, vitiligo, poliosis, and alopecia. The natural history of VKHD is quite varied, but ideally can be divided into four stages: prodromal (meningismus, headache, tinnitus), acute (panuveitis with exudative retinal detachments), chronic or quiescent (tissue depigmentation: vitiligo, poliosis, chorioretinal atrophy/depigmentation) and recurrent (not in all patients, with recurrent or chronic anterior uveitis). Although VKHD is typically bilateral, in a small number of cases delayed second eye involvement has been reported, as in the last patient. Most patients require corticosteroids and immunosuppressive agents for disease control.

Conclusions: VKHD is a bilateral panuveitis with systemic symptoms that presents characteristic ocular findings in the acute stage (panuveítis with exudative retinal detachments) and in the chronic/recurrent stage (chorioretinal atrophy and depigmentation, and chronic or recurrent anterior uveitis).

IF-130
SYSTEMIC MEDICATIONS FOR THE TREATMENT OF PRIMARY SJÖGREN'S SYNDROME IN SPAIN. MAIN THERAPEUTIC OPTIONS USED IN A SERIES OF 921 PATIENTS (GEAS-SEMI-SS REGISTRY)

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Objectives: To describe the main therapeutic options in a large cohort of Spanish patients diagnosed with primary Sjögren syndrome (SS), and investigate how many patients required treatment with corticosteroids and/or immunosuppressive agents.

Material and method: The GEAS-SS multicenter registry was formed in 2005 with the aim of collecting a large series of Spanish

patients with primary SS, and included 21 Spanish reference centers with substantial experience in the management of SS patients. By March 2012, the database included 921 consecutive patients, recruited since 1994, fulfilling the 2002 classification criteria for primary SS. We retrospectively investigate the use of the following drugs: pilocarpine, antimalarials (chloroquine or hydroxychloroquine), corticosteroids (> o < 20 mg/d), immunosuppressive agents (cyclophosphamide, mycophenolate, methotrexate, azathioprine or cyclosporine A), intravenous immunoglobulins or biological therapies.

Results: The cohort included 867 (94%) women and 54 (6%) men (female:male ratio, 16:1), with a mean age at diagnosis of primary SS of 54 years and a mean disease evolution of 75 months. Two hundred and twenty two (24%) patients had received pilocarpine, 225 (24%) antimalarials, 353 (38%) corticosteroids (189 at doses > 20 mg/d), 103 (11%) immunosuppressive agents, 20 (2%) intravenous immunoglobulins and 19 (2%) rituximab. Three hundred and sixty four (40%) patients were treated with corticosteroids and/or immunosuppressive drugs (including intravenous immunoglobulins and rituximab). With respect to the main features at baseline, these patients had a higher frequency of positive salivary gland biopsy (93% vs 85%, p = 0.014), rheumatoid factor (64% vs 52%, p < 0.001), anti-La/SS-B (50% vs 43%, p = 0.035), extraglandular involvement (78% vs 49%, p < 0.001), anemia (22% vs 13%, p < 0.001), leukopenia (23% vs 18%, p = 0.035), ESR > 50 mm/h (41% vs 22%, p < 0.001), monoclonal band (12% vs 7%, p = 0.045), low C3 levels (12% vs 7%, p = 0.03), low C4 levels (16% vs 9%, p = 0.007) and cryoglobulins (18% vs 9%, p = 0.001) in comparison with patients who did not require corticosteroid/immunosuppressive drugs. The use of these drugs was also associated with a higher ESSDAI score in the constitutional (p = 0.008), lymphadenopathy (p = 0.007), glandular (p = 0.019), articular (p < 0.001), pulmonary (p < 0.001), renal (p = 0.03), hematological (p = 0.015) and biological (p = 0.003) domains, and with the mean ESSDAI score at baseline (7.65 vs 5.94, p = 0.015) and cumulated at the end of the follow-up (11.93 vs 7.53, p < 0.001).

Conclusions: Nearly half the patients with primary SS received corticosteroids and/or immunosuppressive drugs (including intravenous immunoglobulins and rituximab), even though the majority of drugs are not licensed for the disease and that the available studies, which are overwhelmingly uncontrolled, are mainly designed to evaluate sicca rather than systemic outcomes. In primary SS, therapeutic decisions are still based on a combination of personal experience and reported scientific evidence, principally from uncontrolled studies.

IF-131
GIANT CELL ARTERITIS. 5 YEAR RETROSPECTIVE STUDY IN A HOSPITAL IN THE NORTHWEST OF SPAIN

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Objectives: The aim of the study is to evaluate epidemiological, clinical, laboratory, radiological and treatment features of patients admitted to our hospital, with a discharge diagnosis of GCA.

Material and method: Retrospective study of episodes of ACG in the area corresponding to our hospital (900 beds), data were obtained through the collection of stories between 2006 and 2010. We selected all cases in which the diagnosis was as principal diagnosis and between 2 and 3 instead of the side.

Results: 76 cases were collected over the 5 years with a mean age of 77 years, being 53.9% female. 42% belong to the Department of Internal Medicine and 27.6% to Rheumatology. 59.2% had hypertension, 10.5% DM. The most common symptom at diagnosis was recent headache (65.8%), and later, we found jaw claudication (26.3%) and systemic symptoms: weight loss (21.1%), anorexia (18.4%) and fever (9.2%). 11.8% had anterior ischemic neuritis and 2.6% occlusion of the central retinal artery. Rheumatic polymyalgia is associated with GCA in 40.8% of patients. Palpation of the temporal artery was abnormal 59.2%: no pulse (15.7%), thickening (10.5%). The mean Hb was 11.5 g/dl. Biopsy was performed in 40 patients (52.6%), being positive in 19 (25%). Only one patient underwent temporal artery doppler. 9.1% of our patients had ESR < 50. 90.8% were treated with corticosteroids: 81.6% prednisone, methylprednisolone 2 patients, being most orally (80.3%). 15.8% relapsed and relapse 10.5%. 7.9% required methotrexate. 64.5% received calcium + VitD and 31.6% bisphosphonates. Only 9 patients received ASA. At follow-up only one patient underwent chest X-ray. The most frequent complications were infections (14.5%), followed by DM corticosteroid. Only one patient had osteoporotic fracture. 17.1% were exitus, representing infections 9.1%.

Conclusions: We detected a little follow-up clinical, laboratory and imaging test, with only 11.8% of antiplatelet prophylaxis, despite the recommendations of major international guidelines. The most frequent were infections exitus.

IF-132
DERMATOMYOSITIS AS A PARANEOPLASTIC PHENOMENON

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Objectives: To find out the rate of inpatients admitted in IM Department diagnosed of dermatomyositis as a paraneoplastic phenomenon of an unknown cancer in Virgen de Las Nieves Universitary Hospital (Granada) for the last 5 years. To determinate their clinical characteristics and theirs test result findings. Finally, to clarify if our results are consistent with the previously published literature.

Material and method: It is a retrospective descriptive study of inpatients admitted in Internal Medicine Department of Virgen de las Nieves Hospital (Granada) with the final diagnosis of dermatomyositis from January 2007 to March 2012. We have used a previously established data collection protocol of the sample (14 patients) and we have revised medical stories. At last, we have analyzed data with SPSS statistical program.

Results: The sample includes 14 inpatients with a mean age of 63 years old (min 20-max 90, SD 21, median 69). Most of them are female (71.4%). The most common symptoms are symmetric proximal muscle weakness (64.3%) and malaise & asthenia (50%). The skin lesions are present in all our patients, but they are only typical in 50% of them (28.6% Heliotrope rash and 21.4% Gottron's signs). The rate of respiratory symptoms is 35.7% (21.4% of them with dispnea on moderate exertion with no radiologic data of fibrosis and one case of TEP secondary to an unknown active neoplasia). To highlight between laboratory results, we find elevated CK and LD levels in 28.6% of cases. Autoantibodies detected are positive for ANA (21.4%) and Ro (7.1%). EMG is suggestive of DM in 21.4% of cases and the anatomopathologic study was definitive in 7.1% of them. The treatment is essentially sustained on glucocorticoids (90% of patients (maintenance dose

0.5 mg prednisone/kg/day (57.1%) vs 1 mg prednisone/kg/day (30.8%)). The osteoporosis treatment is included in 42.9% of patients and the immunosuppressive treatment is also added in 57.1% (from them, azathioprine 62.5%, methotrexate 25% and cyclophosphamide 12.5%). The clinical manifestation as a paraneoplastic phenomenon is present in 35.7% of the cases, in which the main neoplastic lineage are kidney and digestive. There is an overlad syndrome in one case (Sharp syndrome: LES, DM, seronegative RA & SS) and one antisynthetase syndrome. There are 2 deaths of inpatients (14.3% of them) during their hospital stay because of a neoplastic cause.

Discussion: We have found out a moderate prevalence of neoplastic cause in patients with dermatomyositis. Moreover, we stand out the need of glucocorticoids with a lower maintenance doses as possible and if it is necessary we can support in immunosupressive therapy. Furthermore, our results are quite consistent with the previously described in literature.

Conclusions: The paraneoplastic phenomenon is a way of presentation of our patients with dermatomyositis in more than 30% of the cases, so we ought to perform a complete screening of tumor. The diagnosis of DM is based on a combination of clinical features, laboratory findings, EMG and AP study. The mainstay of treatment are glucocorticoids and the occasional complementary help of immunosuppressive drugs.

IF-133
SARCOIDOSIS: REVIEW OF 56 PATIENTS WITH HISTOPATHOLOGICAL DIAGNOSIS

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Objectives: Study of the management of patients with sarcoidosis, from diagnosis to treatment, monitoring and clinical course, and later compare it to other reviews and updates of the subject.

Material and method: Retrospective study of 56 patients with histopathological diagnosis of sarcoidosis in the H. Clínico San Carlos in a period of 5 years from 2006 to 2011. We reviewed the medical records of patients diagnosed with sarcoidosis in 5 years at the Clínico San Carlos Hospital, creating a database with epidemiological, clinical, biological, radiological, diagnostic and therapeutic variable data.

Results: In our study (30 women, 26 men), the middle age is 49 years old. Mostly patients were studied for presenting symptoms (72%), being the most common respiratory symptoms (34.2%) like coughing and dyspnea. 7.8% had fever or other nonspecific symptoms, 13.5% palpable extrathoracic nodules and 18,4% erythema nodosum. Diagnosis is made primarily with evidence of consistent histopathology and clinical support. For improving histopathology the most sensitive is mediastinoscopy. The sensitivity of the transbronchial biopsy is 69%. If there is parenchymal involvement, the sensitivity is 75%, while if it is not, it's 38%. Other specific diagnostic tests have less importance each time, but support the diagnosis (angiotensin-converting enzyme or the CD4/CD8 ratio). The most common lung disease is the intrathoracic lymph node involvement, (33%- 35% in stage I-II). Few patients in stage I or II started steroid systemic therapy cause most of them had no functional involvement and were expected having spontaneous remission. Even if they needed steroid treatment they generally had good performance. Patients who required steroids for more than one year, were usually patients in stage IV. They had tendency to disease progression, requiring in many cases maintaining steroid treatment or immunosuppressive therapy such as methotrexate. Two cases with anatomopathological diagnosis of sarcoidosis became in lung adenocarcinoma and gastric adenocarcinoma after one year of follow-up.

Discussion: Only 56 patients had histopathology of sarcoidosis in 5 years. Only 35% of our patients were from 10 to 40 years old, while it is estimated between 70 and 90% in other studies. Only 28% of the patients were asymptomatic, in front of the 50% in other studies. The most frequent symptoms are coughing and dyspnea. Only 7.8 had fever and asthenia while it is expected a 30% in other reviews. Transbronchial biopsy has 69% of sensibility, which is improved if there is parenchymal involvement. The most frequent presentation is the stage I or II which have usually good prognosis. Cases in stage IV need treatment and usually they must keep steroids or immunosuppressive maintaining treatment.

Conclusions: Despite the good prognosis of this disease, we must always reject a cancer with similar presentation, usually with aggressive test like mediastinoscopy in 39% of patients.

IF-134
POLYMYOSITIS IN A THIRD LEVEL HOSPITAL

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Objectives: To find out the clinical features of polymyositis of inpatients admitted in IM Department in Virgen de Las Nieves Universitary Hospital (Granada) for the last 5 years. To discover their complementary findings and their laboratory results. Finally, to clear up if our results are consistent with the previously published literature.

Material and method: It is a retrospective descriptive study of inpatients admitted in Internal Medicine Department of HVN Universitary Hospital with the final diagnosis of polymyositis from January 2007 to March 2012. We have used a previously established data collection protocol of the sample (9 patients) and we have revised medial stories. At last, we have analyzed data with SPSS statistical program.

Results: The sample includes 9 inpatients with a mean age of 49.1 years old (min 18-max 84, SD 20.5, median 55). Most of them are female (66.7%). The most common symptoms are symmetric proximal muscle weakness (77.8%) and malaise, asthenia and weight loss (66.7%). The articular symptoms are commonly present in 66.6% of the cases (joint pain (33.3%) and joint stiffness (22.2%)). The rate of respiratory symptoms is 66% (33.3% of them with dispnea on moderate exertion with fibrosis without home oxygen and 22.2% of them with fibrosis and need of home oxygen). To highlight between laboratory results, we find elevated CK and LD levels in 76% of cases. Autoantibodies detected are positive for ANA (44.4%), Jo-1 (22.2%) and Anti-Knu+PL12 (11.1%). EMG is suggestive of PM in 21.4% of cases and the anatomopathologic study was definitive in 11.1% of them. The treatment is essentially sustained on glucocorticoids (77.8% of patients (maintenance dose 0.5 mg prednisone/kg/day in almost all the patients). The osteoporosis treatment is included in 66.7% of patients and the immunosupressive treatment is also added in 61.9% (from them, azathioprine 66% and cyclophosphamide 12.5%). There is an overlad syndrome in one case (Sharp syndrome: LES, DM, seronegative RA & SS) and a not uncommon combination with antisynthetase syndrome (PM + interstitial pneumonitis + "mechanics hands" + Raynaud phenomena + inflammatory polyarthritis+ anti-synthetase antibodies).

Discussion: We have found out the existence of a occasional combination of polymyositis and antisynthetase syndrome. Also, in many cases of PM they have secondary fibrosis as a long-term complication. Moreover, we stand out the need of glucocorticoids with a lower maintenance doses as possible and if it is necessary we can support in immunosupresor therapy. In cases of interstitial pneumonitis and resistance to corticoid therapy, cyclophosphamide can be an effective alternative to use. Furthermore, our results are quite consistent with the previously described in literature.

Conclusions: Polymyositis is an idiopathic inflammatory myopathy that sometimes overlap with other diseases such as antisynthetase syndrome. So we ought to perform a complete study to exclude it. The diagnosis of PM is based on a combination of clinical features, laboratory findings, EMG and AP study. The mainstay of treatment are glucocorticoids and the occasional complementary help of immunosuppressive drugs (specially cyclophosphamide in cases of corticoid resistance and a bad control of the illness).

IF-135
PARAPROTEINEMIA IN SCLERODERMA

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Objectives: To determine frequency and significance of paraproteinemia in a well characterized large single centre Systemic Sclerosis (SSc) cohort.

Material and method: Systematic search of clinical charts, research database.

Results: The SSc cohort presents itself with 2900 patients; our review was based on a sub-cohort of 2145 patients. From these, 12 patients were found with paraproteinemia: 9 patients had monoclonal gammapathy of undetermined significance (MGUS) and 3 multiple myeloma. The average age was 63 years old. In terms of auto-antibodies, anti-nuclear antibodies (ANA) was positive in 9 patients (75%), with an equal distribution between the homogeneous and the centromere pattern; the extra-nuclear antibodies (ENA) was positive in 5 patients, being mainly anti-SCL 70 (2 patients) and anti RNP (2 patients); 2 patients had anti-CCP positive and 1 had anti neutrophil cytoplasmatic antibody.

Discussion: Several questions arise when evaluating these patients. It is known that paraproteinemia is common in other autoimmune diseases and in the overall demographics mainly above 70 years old. The prevalence of MGUS increases with age, from < 2% in people aged < 40 years to 5% in those aged > 70 years and 9% in those aged > 85 years in general demographics. Studies show that up to 20% of patients with primary Sjögren and up to 5.4% in patients with systemic lupus erythematosus (SLE) may have associated MGUS. When evaluated our cohort the frequency was extremely low (0.56%), against what was expected, being SSc an autoimmune condition. When trying to find special features of SSc that might suggest predisposition to paraproteinemia, we verified that there were none, but the number of patients with both conditions in our case series was very low. It can be suggested that the treatment commonly applied may alter not only the disease course, but also other secondary associated diseases.

Conclusions: Paraproteinemia is uncommon in SSc in comparison with other autoimmune diseases such as Sjögren. We would expect, by analogy with the general population, at least about 5% of paraproteinemia in our cohort, which doesn´t happen.

IF-136
ANTISYNTHETASE SYNDROME IN A THIRD LEVEL HOSPITAL

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Objectives: To find out the clinical features of antisynthetase syndrome of inpatients admitted in IM Department of Virgen de las Nieves Universitary Hospital (Granada) for the last 5 years. To discover their complementary findings and their laboratory results. Finally, to clear up if our results are consistent with the previously published literature.

Material and method: It is a retrospective descriptive study of inpatients admitted in Internal Medicine Department of HVN Hospital (Granada) with the final diagnosis of antisynthetase syndrome from January 2007 to March 2012. We have used a previously established data collection protocol of the sample (8 patients) and we have revised medical stories. At last, we have worked out an statistical analysis with SPSS program.

Results: The sample includes 8 inpatients with a mean age of 60.13 years old (min 45-max 73, SD 8.4, median 60). Most of them are female (62.5%). All the patients have interstitial pneumonitis (based on functional lung tests and imaging). The degree of the dyspnea is on moderate exertation in 25% of cases and with minimal effort in 50% of them, requiring in this last case home oxygen in this proportion. The pulmonary hypertension was present in 12.5% and also dilated cardiomiopathy and CHF with the same rate. The characteristic skin lesions of "mechanic hands" are present in 87.5%. The non-erosive polyarthritis appears in 75% of them. The carpal tunnel syndrome happens in 25% of them and the Raynaud phenomena in 37.5% respectively. The association with dermatomyositis or polimyositis occurs in 50% of the sample. To highlight between laboratory results, we find positive antisynthetase autoantibodies for Jo-1 (50%) and Anti-Knu+PL12 (12.5%). There are concomitant autoimmune diseases: Sjögren's syndrome (37.5%), systemic sclerosis (12.5%) and autoimmune hypothyroidism (12.5%). The treatment is essentially sustained on glucocorticoids (75% of patients (maintenance dose 0.5 mg prednisone/kg/day in almost all the patients)). The osteoporosis treatment is included in 25% of patients and the immunosupressive treatment is also added in 50% (from them, essentially cyclophosphamide 37.5% and azathioprine 12.5%). There is an overlad syndrome in one case with Sjögren's syndrome and systemic sclerosis.

Discussion: We have found out the occasional combination of antisynthetase syndrome with other autoimmune diseases. Also, in most of the cases, they have secondary interstitial fibrosis as a long-term complication. Moreover, we stand out the need of glucocorticoids with a lower maintenance doses as possible and if it is necessary we can support in immunosuppressive therapy. In cases of interstitial pneumonitis and resistance to corticoid therapy, cyclophosphamide can be an effective alternative to use. Furthermore, our results are quite more or less consistent with the previously described in literature.

Conclusions: Antisynthetase syndrome is an idiopathic autoimmune illness that sometimes overlap with other diseases and commonly with lung fibrosis, so we ought to perform a precocious and meticulous study to exclude it and a close ambulatory following up. The pulmonary fibrosis happens frequently and it is an indication of intensifying immunosuppressive treatment. Cyclophosphamide is a valuable alternative therapy in cases of corticoid resistance and bad control of the illness.

IF-137
RETROSPECTIVE ANALYSIS OF PERIPHERAL NERVOUS SYSTEM VASCULITIS DIAGNOSED BY BIOPSY IN THE HEALTH AREA OF VIGO

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Objectives: The term vasculitis refers to the destruction or vessel injury secondary to an inflammatory condition of the vessel wall. Vasculitic neuropathies traditionally have been classified in non-systemic (isolated vasculitis of the PNS-peripheral nervous system-, for some authors in the spectrum of polyangiitis microscopica-PAM- but without systemic involvement) and systemic, which can be further subdivided into primary (PAN, Wegener, Churg Strauss, PAM) and secondary to other processes (infections, collagen diseases, toxics...). We analyze the clinicopathologic features and the most common entities associated with vasculitis of peripheral nerve in our Hospital.

Material and method: We conducted a retrospective study of medical records from patients with peripheral nerve biopsy diagnosis of vasculitis, selected through the coding system pathology department of the Hospital of Vigo (SNOMED). We detected 13 cases since January 1, 1995 to January 1, 2012.

Results: 7 patients were men and 6 women. Mean age at diagnosis was 55 years (range 33-76). 5 patients were diagnosed with isolated PNS vasculitis (38.5%), 3 PAM (23%), 2 PAN (15.4%), 1 Churg-Strauss, 1 Cryoglobulinemia associated with Sjögren's and other diagnosis was uncertain. The most frequent reason for consultation was parestesia, present in 61.5% of patients, usually asymmetrical. 15.4% mixed clinical related sensory-motor, 7.7% had weakness of foot dorsiflexion (foot drop) and 7.7% myalgia. Laboratory findings were unremarkable, highlighting a rising phase reactants, with mean ESR 45.5 mm/h (range 10-110) and CRP 22 mg/L (range 5-54) and two cases with impaired function renal (1 PAM, 1 Sjögren/cryoglobulinemia). Neurophysiological findings (only available in 8 patients) showed axonal sensorymotor polyneuropathy data in 4 (50%), mononeuritis multiplex in 3 (37.5%) and demyelinating polyneuropathy in one. Biopsy showed lymphocytic vasculitis data in 8 cases (61.5%), fibrinoid necrosis in 4 (30.8%) and perivascular eosinophilic infiltration in a patient with Churg-Strauss. Treatment was performed in 53.8% only with steroids and the remaining 46.2% with corticosteroids and other immunosuppressive (3 CPM, 2 MTX, 1 IG and 1 AZA).

Conclusions: 1. Peripheral nerve vasculitis is a rare diagnosis in our demographic area. 2. Isolated PNS vasculitis was the most frequent diagnosis, followed by microscopic polyangiitis and polyarteritis nodosa. 3. The most common clinical manifestation was asymmetric sensory alteration with electrophysiological data of mixed axonal PNP or MNM. 4. Histology findings of lymphocytic vasculitis were associated ($p = 0.004$) with the clinical diagnosis of vasculitis isolated PNS. ESR: erythrocyte sedimentation rate CRP: reactive c protein CPM: cyclophosphamide MTX: methotrexate IG: immunoglobulins AZA: azathioprine MNM: mononeuritis multiplex.

IF-139
KIKUCHI-FUJIMOTO DISEASE - CASUISTRY OF AN INTERNAL MEDICINE DEPARTMENT

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The Kikuchi-Fujimoto Disease (or histiocytic necrotizing lymphadenitis) is a relatively rare entity, with unknown aetiology. It manifests as linfadenopathy of cervical predominance, associated with typical clinical manifestations often observed in upper respiratory tract infections, including fever. It is usually a self-limited phenomenon. The authors present 5 cases of Kikuchi-Fujimoto Disease. All of these pertain to 5 women, with ages between 22 and 37 years old. As main clinical complaints they presented asthenia, anorexia and slimming, having searched for medical care at the detection of cervical adenopathies of elastic consistency, mobile and peri-centimetric. The hystologic diagnosis was obtained through excisional biopsy. In one of these cases there was a concurrent tonsillar infectious process, in other of these cases it was identified a lower urinary tract infection by Escherichia coli, and in a third case it was observed a posterior development of ganglionar tuberculosis. A weight loss superior to 10% was only observed in one case. In none of these cases were proven auto-immune or lymphoproliferative diseases. The disease always took a self-limited course, without the actual need of therapeutic intervention, namely corticotherapy.

IF-140
ASSOCIATION OF ANTI- ENA WITH CYTOPENIA IN PRIMARY SJÖGREN`S SYNDROME

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Objectives: The presence of Anti-Ro/SS-A and anti- La/SS-B is an established hallmark of Sjögren's syndrome. We selected 48 patients who fulfilled the International consensus criteria in order to evaluate the association of anti-SS-A/Ro, anti-SS-B/La and anti-RNP, with haematological involvement in primary Sjögren's syndrome.

Material and method: We performed a detailed analysis of autoantibodies, determined by immunoblotting and haematologic parameters in these patients.

Results: Anti-SS-A/Ro 60 and/or 52 were detected in 39 patients (81.2%). Among these patients, 43 (89.6%) were women, 36 (75%) showed anti-SS-A/Ro 52 alone, anti-SS-A/Ro 60 reactivity was found in 30 patients (62.5%), whereas 27 (56.2%) were positive for anti-SS-A/Ro 60 and 52. In addition, anti SS- B/La was found in 19 (39.6%), linked to anti-SS-A/Ro 52 or Ro 60 in all cases. Finally, only 2 cases (4.2%) were positive for anti-RNP, in both cases were associated with other autoantibodies. Anti-SS-A/Ro 52 and anti-SS-B/La antibodies were found to be significantly associated with anemia and anti-RNP with neutropenia ($p < 0.05$). When we analyzed patients with anemia, all cases (10 patients) were anti-SS-A/Ro 52 positive. As well as all the anti-RNP positive cases had leukopenia and neutropenia. Significantly diminished cell numbers were found especially in lymphocytes with reference to anti-SSA/Ro 52 and a significant decrease in the hemoglobin levels was associated with anti-SSB/La ($p < 0.05$). Moreover, a significant association was found between a drop in leucocytes and neutrophils and the presence of anti-RNP antibodies.

Discussion: The prevalence of anti-SS-A, anti SS- B and anti-RNP was much higher in patients with cytopenia. No significant correlation was found concerning platelets in any of the autoantibody groups.

Conclusions: The presence of specific autoantibodies as anti-SS-A/Ro 52 and anti SS-B/La seem to play an important role in the genesis of hemocytopenia in primary Sjögren's syndrome.

IF-141
CLINICAL ASSOCIATIONS OF ANTI-SS-A/RO 60 AND 52 ANTIBODIES IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: In order to analyse the clinical associations of anti-SS-A/Ro and 52 antibodies in systemic lupus erythematosus (SLE), we selected 153 patients who fulfilled the ACR criteria and whose clinical features were recorded in a data base of SLE patients established in Asturias since 2003.

Material and method: In these patients, disease activity was periodically measured by SLEDAI and anti-SS-A/Ro 60 and 52 were determined by enzyme fluoroimmunoassay.

Results: The presence of anti-SS-A/Ro 60 and/or 52 was detected in 58 (37.9%) of patients. Among these patients, 32 (55.2%) were positive for anti-SS-A/Ro 60 and 52, 24 (41.4%) showed anti-SS-A/Ro 60 alone whereas isolated anti-SS-A/Ro 52 reactivity was only found in 2 (3.4%). By logistic regression adjusted for sex, age at diagnosis and age at time of analysis, both antibodies were found to be independently associated with photosensitivity ($p < 0.05$), Raynaud's phenomenon ($p < 0.05$), keratoconjunctivitis sicca ($p < 0.05$) and secondary Sjögren syndrome (sSS) ($p < 0.05$). When analyzing together patients with keratoconjunctivitis sicca and/or sSS (40), anti-SS-A/Ro 60 and/or 52 were detected in 22 (55.0%) whereas these antibodies were present in only 18 of the remainder 113 patients (15.9%) ($p < 0.001$). Anti-SS-A/Ro 52 antibodies were also found to be significantly associated to cytopenia ($p < 0.05$). Anti-SS-A/Ro 60 and 52 levels were very stable over time and did not correlate with SLEDAI.

Discussion: Anti- SS-A/Ro 52 and Ro 60 are associated with photosensitivity and Raynaud's phenomenon whereas association with cytopenia is exclusive of anti-SS-A/Ro 52.

Conclusions: In SLE, the presence of anti-SS-A/Ro 60 and 52 defines a subgroup of patients with higher probability to develop sSS, as well as other clinical features.

IF-143
IS NEUROSARCOIDOSIS A DIAGNOSIS OF EXCLUSION?

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Objectives: Sarcoidosis is a systemic granulomatous disease that affects various organs and tissues. The nervous system is involved in 5% of cases. The clinical presentation may adopt different forms, from headache, aseptic meningitis, visual disturbances or cranial nerve palsies, to symptoms due to spinal cord, brainstem, cerebellar or pituitary gland dysfunction. In about 50% of patients no other organ is affected, complicating the diagnosis process. Objectives: to analyse the clinical presentation patterns and the criteria that led us to the final diagnosis of neurosarcoidosis in a series of patients.

Material and method: Retrospective analysis of 5 patients with a diagnosis of neurosarcoidosis followed up in a Systemic Autoimmune Diseases Unit in a tertiary hospital over a period of 10 years (2002-2012). We analysed the clinical manifestations, diagnostic tests, treatments and outcomes.

Results: Case No. 1: women 43 years old. Right retroocular headache without other symptoms. Angiotensin converting enzyme (ACE): 85 U/l (< 50 U/l). Orbital MRI: right orbital pseudotumor. Case No. 2: women (45). Generalized seizures and later aseptic meningitis. Brain MRI: diffuse lesions in both spinal and cerebral hemispheres. Case No. 3: women (43). Right retroocular headache, proptosis, loss of visual acuity, proptosis, upper lid ptosis and alteration of the extrinsic ocular motility (paralysis of cranial nerve II) of the right eye. MRI: right orbital pseudotumor that included the optic nerve Case No. 4: women (43). Pulmonary and skin sarcoidosis (biopsy positive). After 6 years developed aseptic meningitis and optic nerve failure. MRI: involvement of leptomeninges infra and supra-tentorial ependymal with nodular images. Case No. 5: Male, 77. Pulmonary sarcoidosis and decreased strength in left limbs, aseptic meningitis and compatible brain MRI lesions.

Discussion: Diagnosis of neurosarcoidosis remains a challenge, especially in the absence of extraneural involvement, adding the technical difficulties for definite histological confirmation. The symptoms are varied (any portion of the central or peripheral nervous system could be affected) and tests (other than histological) lack specificity. A broad differential diagnosis, including lymphoma and tuberculosis, is always necessary. In many cases the diagnosis of exclusion is based on clinical symptoms, brain MRI images, CSF examination and the response to treatment. In our patients the most useful tests for diagnosis were the CSF study (lymphocyte pleiocitosis, elevated protein levels and glucose consumption) and the MRI images (brain and spinal cord with compatible lesions). ACE was elevated in 4 patients and it helped in the diagnosis. The clinical evolution and response to treatment confirmed the diagnosis in all cases.

IF-144
RETROPERITONEAL FIBROSIS: A RETROSPECTIVE REVIEW IN A THIRD LEVEL HOSPITAL

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Objectives: To describe the clinical manifestations, laboratory results, imaging findings, and treatments in patients with retroperitoneal fibrosis seen at Gregorio Marañón Hospital in the last ten years.

Material and method: In this retrospective study we enrolled all patients evaluated for retroperitoneal fibrosis at Gregorio Marañón Hospital in the last ten years. Medical data were reviewed and clinical information was abstracted.

Results: Of the 14 patients identified as having retroperitoneal fibrosis six were men and eight were women. Mean age at diagnosis was 55 years. Nine patients were identified as idiopathic fibrosis and six as secondary. Ten patients were identified as class III retroperitoneal fibrosis (lateral extension of fibrosis with compression of one or both ureters) two as class I fibrosis and two as class IV. Biopsy specimens were obtained in eight patients. The most common presenting symptoms were abdominal pain or discomfort (50%) and ureteral obstruction (71%). Baseline erythrocyte sedimentation or/and C reactive protein levels were elevated in eight patients. Ten patients were treated with corticoids and five with ureteral procedures. Four patients died.

Discussion: Retroperitoneal fibrosis is characterized by fibroinflammatory tissue surrounding the abdominal aorta and the iliac arteries. This process may extend into the retroperitoneum and envelop surrounding structures like ureters. In our study most patients were women with idiopathic fibrosis. Radiotherapy was the main cause of secondary fibrosis. Most patients were identified as class III retroperitoneal fibrosis and treated with corticoids. The

most common presenting symptom was ureteral obstruction. Although nowadays the idiopathic retroperitoneal fibrosis is considered a IgG4 related disease, serum IgG4 concentrations were not measured. The reason could be that it is a novel determination in our clinical laboratory.

Conclusions: Retroperitoneal fibrosis is an uncommon condition with an estimated incidence of 1.38 cases per 100,000 people. To know clinical features of presentation is important for diagnosis. We should measure serum IgG4 concentrations in those patients with retroperitoneal fibrosis. Although corticoids were the most frequent treatment, we should consider immunosuppressive drugs as an option of treatment for corticoid resistant patients.

IF-145
RETROSPECTIVE CASE SERIES FROM A SINGLE CENTER OF ANTI-TNF FOR PATIENTS WITH REFRACTORY NONINFECTIOUS POSTERIOR, INTERMEDIATE AND PANUVEITIS

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Objectives: To evaluate the efficacy of infliximab and adalimumab in refractory non-infectious intermediate, posterior, and panuveitis in a retrospective study concerning all patients treated in a single center in the last seven years.

Material and method: We analyzed the effect of infliximab and adalimumab in patients diagnosed of non-infectious intermediate, posterior, or panuveitis refractory to immunosuppressive drugs (IMSD) and oral glucocorticoids (oGC). Efficacy was analyzed by measurement of visual acuity, inflammatory activity, the incidence of new episodes of uveitis, and reduction or withdrawal of oGC and IMSD.

Results: From 2004 to January 2011, 16 patients were included (10 women, 6 men), mean age: 37.94 (range 23-61 years), mean follow-up 23.29 months (range 3.47-80). Six patients had Behçet disease, 4 idiopathic vasculitis, 2 birdshot choroidoretinopathy, 1 Harada disease, 1 psoriatic arthritis, 1 serpenginous choroidopathy, 1 idiopathic pars planitis. All of these patients have been previously treated with IMSD and oGC. At the beginning of anti-TNF therapy, all these patients were treated with immunosuppressive drugs and oral glucocorticoids. Eleven patients (68.8%) have been treated with infliximab 5 mg/Kg/IV on 0,2,6 and every 8 weeks, 3 patients (18,8%) have been treated with adalimumab 40 mg each other week, and 2 patient have been treated firstly with infliximab and after with adalimumab. Eleven patients (68.8%) improved visual acuity, 13 patients improved inflammation (81.25%), 10 patients (62.5%) improved these two parameters, 3 patients (18.8%) improved inflammation without improve visual acuity, 1 patient (6.25%) improved visual acuity without improved inflammation, and 2 patients (12.5%) did not show any improvement. 4 patients discontinued treatment, 1 due to inefficacy, 1 due to remission, 1 due to adverse event (infusional reaction), and 1 was lost in follow-up. Patients discontinued to inefficacy and adverse event have been treated with infliximab and after have been switched to adalimumab. OGC dose was tapered in all patients, and IMSD was tapered in 3 patients. 9 patients (56.25%) had not new episodes of uveitis, 5 patients (31.25%) suffered only one new episode of uveitis (close related at beginning of treatment), and 2 (12.5%) patients suffered new severe episodes. Patient in remission relapsed four month after stopped treatment.

Discussion: Even of small size of the sample and that it is a retrospective analysis, it seems that infliximab and adalimumab are save and useful for treatment of refractory posterior uveitis, improving visual acuity, inflammation or diminishes relapses or flares. On the other hand, infliximab and adalimumab could contribute to taper and/or withdrawal glucocorticoids and other immunosuppressive drugs, however prior state of patients could limit this action. No observed life-threatening adverse effects in our series.

Conclusions: Anti-TNF therapy is useful in refractory uveitis. Moreover, prospective randomized trials are necessary to assess the efficacy of these treatments.

IF-146
EARLY INDICATIONS OF BIOLOGICAL THERAPY IN SARCOIDOSIS

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Objectives: Sarcoidosis is a granulomatous systemic disease of unknown etiology, involving macrophages and lymphocytes with production of proinflammatory cytokines. Steroids and immunosuppressive drugs are indicated for the majority of cases. Identification of refractory cases may benefit from early intervention with biological therapies. Objectives: to analyze the profile of patients with sarcoidosis requiring anti-TNF therapy.

Material and method: Retrospective study of 17 patients with sarcoidosis followed at the Systemic Autoimmune Diseases Unit of a tertiary Hospital during the period 2002-2012. We selected the cases when conventional treatment failed, and in which biological therapy with infliximab or adalimumab was started. Linking symptomatic improvement with resolution of the granulomas. The follow-up was 3 years.

Results: Biologic therapy was indicated in 7 patients. Adalimumab was the first choice in 5/7 (71.4%) cases: 2 patients with systemic disease, and 3 with neurosarcoidosis. Symptomatic and functional improvement was achieved. Infliximab was the first choice in 2/7 (28.6%) patients: 1 with neurosarcoidosis and 1 with systemic and a facial resistant plaque. In this last patient treatment failed and it was switched to adalimumab. None of the patients presented serious adverse effects.

Conclusions: The failure to standard therapy in our patients was mostly related with the presence of neurological sarcoidosis activity. Most of them had good response and evolution with anti-TNF agents. Adalimumab was the most effective drug with sustained clinical remission. However, more experience about the optimal dose and the duration of treatment is necessary. We believe that early intervention with anti-TNF agents may be beneficial in cases of neurosarcoidosis or in sarcoidosis with high activity and extension.

IF-147
SYSTEMIC LUPUS ERYTHEMATOSUS IN THE NORTHWEST OF SPAIN: COMPARISON WITH THE REST OF SPAIN FROM 2006 TO 2010

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Objectives: We present a comparison between a region in the northwest of Spain (Galicia) and the rest of Spain including the

main epidemiological variables of patients admitted with systemic lupus erythematosus (SLE) as the primary diagnosis (PD).

Material and method: Retrospective study from 2006 to 2010 using data from the SERGAS (Health Service of Galicia), and the rest of Spain through the website of the Ministry of Health http://www.msps.es. We used ICD-9 code 710.0 for SLE and the 710 "diffuse connective tissue diseases" (excluding vasculitis), in both search. Variables such as sex, age, hospital and department of discharge were studied.

Results: There were 779 patients with a DP of SLE in Galicia and 8,086 in Spain. Regarding sex, 77.5% of cases occurred in Galician women while in the rest of the Spain was about 84%. The mean age was 37.89 (SD ± 15.47) in Galicia. Referring mortality (SLE as PD), there were 7 in Galicia (0.9%) and 96 in Spain (1%). Classifying by hospitals, the largest number of admissions was registered in A Coruña with 228 (29.3%), followed by Lugo 178 (22.8%) and Vigo 125 (16%). In Galicia the highest percentage of admissions belongs to: Rheumatology (41.5%), Nephrology (38%) and Internal Medicine (11.3%). According to the total of patients in Rheumatology, the largest number belongs to Lugo 142 (44%), in Nephrology in A Coruña 172 (58.1%) and 42 (47.7%) in Internal Medicine from Vigo. While Internal Medicine was the first in number of admissions (30.4%), Nephrology (26.9%) and Rheumatology (26.2%), in the whole of Spain,. On the other hand, admissions due to autoimmune diseases in the whole country were 14,963. Third of them, 4,880 belong to Internal Medicine, in the majority from Emergency room (57.6%), contrary to Nephrology 2,264 (32.6%) and Rheumatology 4,610 (34%) where scheduled admission was the primary way.

Discussion: The data analyzed in Galicia were very similar to the rest of Spain except for the percentage of admission in Internal Medicine with SLE as PD, if we compare it with other departments that also manage this disease (up to 75% less admissions than in others departments). SLE is a multisystemic disease that could benefit from a global and multidisciplinary manage. Relationship and cooperation with other specialities must be strength. As selection bias, we did not include the secondary diagnosis of SLE neither the cases followed by an ambulatory form.

Conclusions: Our results showed that there were differences in admissions of SLE as a primary diagnosis between the Galician Internal Medicine departments and also compared to the rest of Spain.

IF-148
GASTROINTESTINAL MANIFESTATIONS OF SYSTEMIC SCLEROSIS - ABOUT 10 CASES

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Objectives: Systemic sclerosis (SSc), is a multisystem disease of unknown etiology. Gastrointestinal involvement (GII) is frequent, occurring in 75 to 90% of patients with diffuse or limited cutaneous SSc. All levels may be affected. The aim of this study is to determine the prevalence of GII in Tunisian population.

Material and method: This is a retrospective and descriptive study about 10 patients with SSc monitored during the period from 1995 to 2011 in the department of internal medicine of Farhat Hached hospital (Sousse, Tunisia). All patients fulfilled ACR criteria.

Results: All patients are females. The mean age was 42 years (extremes: 23-70 years). All patients had a diffuse form. All patients developed one or more digestive manifestations. GII was inaugural in 4 cases and late in 6 cases, appeared at a mean of 3.5 years after the onset of disease. Oesophageal abnormalities was the most frequent GII observed in 8 patients. Clinical manifestations were dysphagia (n = 5) and pyrosis (n = 3). The digestive fibroscopy made among 7 patients were normal in 4 cases and has shown a gastritis erosive, an abnormal gastric motility and a peptic oesophagitis in one case each. The manometrie has been practiced among 7 patients and showed a hypotonic lower sphincter of the esophagus in all cases. Intestinal involvement was noted in 4 cases attested clinically by transit disorder and or meteorism. Microrectie was noted in one case. There is nether case of pseudoobstruction syndrome nor gastrointestinal bleeding. All intestinal involvement occurred in the course of the disease. One patient had a malabsorption syndrome related to a celiac disease associated.

Discussion: The result of our study confirms that GII in SSc is common. Esophageal involvement is the most frequent manifestation and appear early in the course of the disease.

IF-149
A COHORT OF PATIENTS WITH DIAGNOSIS OF UVEITIS IN MURCIA, SPAIN

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Objectives: Our hospital is a second level center which attends a population of 202.000 people in Murcia. Our objective is to describe the uveitis pattern in our health area (VII Health Area, Murcia, Spain).

Material and method: A cross-sectional study between 1st January 2008 and 1st May 2012 was done. We reviewed the medical records of all patients referred to Internal Medicine Outpatient Department from Ophthalmology Department. Anatomical patterns (IUSG and SUN), age, sex, laterality, histological type, presence of vasculitis and clinical course were analyzed.

Results: The continuous variables were expressed as mean and standard deviation and qualitative variables as percentages. 63 patients were finally included from a total of 69. 50.8 percent were men. The mean age was 44.24 years (SD ± 17.22). On the other hand, 37 (58.7%) were anterior uveitis, 7 (11.1%) intermediate uveitis, 6 (9.5%) posterior and 13 (20.6%) panuveitis. 32 (50.8%) was unilateral. In addition, 4 (6.3%) were granulomatous and in 5 (7.9%) cases vasculitis was described. At last, 26 (41.3%) were acute, 6 (9.5%) were chronic and 31 (49.2%) were recurrent.

Discussion: Global trends of uveitis are changed in the last decades. Uveitis results from several etiological entities. Causes are known to vary in different populations depending upon the ecological, genetic and socioeconomic variations. Uveitis has an equal distribution between male and females, and the most common pattern is anterior uveitis. Mean age of incidence of uveitis, according to several studies, varies from 32 to 45 years. Moreover, infectious diseases were found as the cause of uveitis in 5.2% of patients in developed countries. Therefore, non-infectious diseases were recommended as the major cause of uveitis. Also, we know that there are also some specific HLA dependent inflammatory diseases which can lead to uveitis like Behçet's disease (HLA-B51) or acute anterior uveitis (HLA-B27).

Conclusions: In our hospital, 91.3% of patient with the diagnosis of uveitis can be correctly classified. In our sample, the most common localization was the anterior uveitis and the most frequent clinical course was recurrent.

IF-150
CLINICAL SIGNIFICANCE OF RAISED SERUM BETA-2 MICROGLOBULIN LEVELS IN 177 PATIENTS WITH PRIMARY SJÖGREN SYNDROME: CLOSE ASSOCIATION WITH CLINICAL ACTIVITY AND IMMUNOLOGICAL EXPRESSION

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Objectives: To analyze the clinical significance of beta-2 microglobulin, a serum marker closely related to B-cell hyperactivity, in a large cohort of primary Sjögren syndrome (SS) patients, and to analyse the main clinical and immunological characteristics that SS patients with raised levels of serum beta-2 microglobulin may have.

Material and method: We included 177 consecutive patients diagnosed with primary SS in the Department of Autoimmune Diseases in whom serum beta-2 microglobulin levels were retrospectively tested at least twice. Patients fulfilled the 2002 classification criteria for primary SS. The new 2010 EULAR-SS disease activity index (ESSDAI) was also retrospectively calculated. Raised serum levels of beta-2 microglobulin were defined according to the laboratory hospital reference (> 2.3 mg/L).

Results: Of the 177 patients with primary SS, 167 (94%) patients were women and 10 (6%) were men, with a mean age at SS diagnosis of 53.76 ± 1.15 years (range: 18-87). Ninety-seven (55%) patients had raised beta-2 microglobulin levels (> 2.3 mg/L). These patients had a higher mean age at diagnosis of SS (57.39 ± 1.53 vs 49.36 ± 1.63, p < 0.001) and a higher prevalence of lymphopenia (17% vs 7%, p = 0.071), anti-Ro/SSA antibodies(88% vs 62%, p < 0.001) and anti-La/SSB antibodies (69% vs 40%, p < 0.001) in comparison to SS patients with beta-2 microglobulin < 2.3 mg/L. Primary SS patients with raised serum beta-2 microglobulin levels had a higher degree of disease activity measured with the ESSDAI score. In comparison with patients with normal levels of beta-2 microglobulin, those with raised levels had a higher mean cumulated ESSDAI score, a higher mean ESSDAI score at baseline (p = 0.024) and a higher mean score during follow-up (new degree of activity) (p = 0.001). When the mean scores of each domain of the ESSDAI index were compared according to normal or raised values of beta-2 microglobulin evaluated, patients with raised levels had a higher mean score in main systemic domains, including the pulmonary (p = 0.015), kidney (p = 0.032), muscle (p = 0.015) and peripheral nervous system (p = 0.03) domains in comparison with patients with normal beta-2 microglobulin levels.

Conclusions: 55% of patients with primary SS had high levels of serum beta-2 microglobulin. Patients with raised levels were diagnosed with primary SS at an older age and had a higher prevalence of the main SS-related autoantibodies (anti-Ro/SSA and anti-La/SSB). Patients with high beta-2 microglobulin levels also had a high global ESSDAI score and higher scores in the main organ domains. We confirm a close correlation between raised beta-2 microglobulin levels and clinical/immunological activity in patients with primary SS.

IF-151
TREATMENT REGIMENS FOR LUPUS NEPHROPATHY

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Objectives: Lupus nephropathy (LN) is a major cause of morbidity and mortality in patients with systemic lupus erythematosus (SLE). The aim of this study is to compare therapeutic regimens in LN.

Material and method: Retrospective study based on clinical records of patients with biopsy-proven lupus glomerulonephritis. We collected demographic and clinical data, histological classification on biopsy, treatment regimens and disease progression.

Results: Ninety-five patients were included in this study, 90% of which were women and the mean age at diagnosis for systemic disease was 27.4 ± 10.9 years. On average, 6.5 ± 1.1 diagnostic criteria for SLE were present, being the most common arthritis (91.2%) and immunological criteria (antinuclear and anti-double stranded DNA antibodies positive in 90.5%). Renal biopsy was performed in all cases, mostly due to hematuria and proteinuria or nephrotic syndrome. Fifty-two patients underwent therapy with pulses of cyclophosphamide (CYC): 7 in a low-dose and 45 in high-dose regimen. There was no statistical difference between the schemes applied concerning presentation of renal disease, number of complete remission (p = 0.09) and flares (p = 1.00), progression to chronic kidney disease (p = 0.66) or need for renal replacement therapy (p = 1.00). Seventeen patients underwent maintenance therapy with mycophenolate mofetil (MMF) and 50 patients with azathioprine (AZA). Comparing both groups, there was no differences concerning presentation of renal disease, histological classification at diagnosis, number of complete remissions (p = 0.27) and flares (p = 0.30), progression to chronic kidney disease (p = 0.13) or need for renal replacement therapy (p = 0.43).

Discussion: As expected, both induction regimens with CYC were similar. Contrary to what is described in the literature there was no differences between maintenance therapy with MMF and AZA, which can be explained by the reduced sample.

Conclusions: The ideal therapy in LN should seek to reduce progression to end-stage renal disease, prevent clinical flares and induce a rapid remission with few adverse effects.

IF-152
GIANT CELL ARTERITIS: WHEN THE TIME IS IMPORTANT

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Objectives: Giant cell arteritis or temporal arteritis is the most frequent of the systemic vasculitis. It affects medium and large vessels with preference for the extracranial carotid territory affecting almost exclusively, people around de fiftieth decade. The most common clinical manifestations are headache, jaw claudication, fever and a constitutional syndrome. The objective is to describe the clinical and analytical characteristics as well as the therapeutic management of the giant cell arteritis diagnosed during the period of 9 years, since the opening of the Universitary Hospital of Fuenlabrada (HUFLR) in June 2004 to April 2012.

Material and method: Retrospective descriptive study of all the cases of giant-cell arteritis diagnosed in the HUFLR from June 2004 to April 2012. They were statistically analysed the following clinical and analytical variables: age, sex, clinical features (headache, fever, disorders of the temporal artery in exploration, constitutional syndrome, visual disturbances, jaw claudication, association with polymyalgia rheumatica) We also analized the treatments administered, including the doses of prednisone, if the descending pattern of corticoids was correct, the improvement after treatment, relapses, realization of biopsy and its result. Analytical features analised: hemoglobin, VCM, leukocytes, VSG, PCR and autoimmunity study.

Results: 9 cases of arteritis giant were diagnosed. They were predominantly elder patients (age: 75 years) and women (66.7%). Constitutional syndrome was the most common symptom and the

reason why the consulted (77.8%) followed by headache (55.6%), fever (55.6%) and jaw claudication (55.6%). Only one patient debuted with amaourosis fugax. Two patients (22.2%) showed alterations in the temporal artery in exploration. Up to 6 patients had rheumatic polymyalgia clinic (66.7%). A high level og VSG was found in 87% of the patients along with normocytic (VCM: 88.7 fl) anaemia (Hb: 11.1 g/dl) and elevated CRP (15 mg/dl). There was no leukocytes elevation (10,500). Autoimmunity study was performed in four patients; with positive ANA's in one patient. The average time until de diagnosis was performed, was approximately 12.8 days. 100% of patients initially received prednisone at the beginning (61.1 mg/d); and in three patients (33.3%) methotrexate was added later. The time since the diagnosis is suspected until the treatment with corticosteroids was begun is short (1-2 days), and there is a subjective improvement in symptoms in the fourth-fifth day of treatment in most patients (8) finding no improvement in the patient with amaurosis fugax. Biopsy was performed in 7 patients (two of them before starting treatment with steroids). It was positive in three cases (33.3%). 4 patients made a correct corticoids decrease, with only one relapse after trying to suspend the steroids. Of the remaining four that didn't make a correct downward pattern, three relapse and one fails to improve (amaurosis fugax). A patient was lost during the follow-up.

Conclusions: We observed that this entity is more common in older women who consult with constitutional syndrome along with headache, fever, and jaw claudication, normocytic anemia and high VSG, Initial treatment with steroids resulted in a rapid initial improvement of symptoms, but if the downward pattern is not done correctly there is a high probability of relapse.

IF-153
PATTERNS OF BIOLOGIC AGENT USE IN ELDERLY PATIENTS IN AN AUTOIMMUNE DISEASES UNIT

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Objectives: Even though there is a high prevalence of rheumatological diseases in elderly patients for which biological agents can be the only effective form of therapy, there are few reports regarding their use in this age group. Safety concerns in the elderly are exacerbated by frequent co-morbidities, polypharmacy, underlying immunosenescence and increased risk of infection, cancer and accelerated atherosclerosis, which may inadequately exclude elderly patients from such therapies. The aim of this study was to characterize elderly patients (> 65 years old), treated with biological agents.

Material and method: Retrospective study with review of the files of all elderly patients treated with biological agents in an Autoimmune Diseases Unit. Patients were characterized according to sex, age, autoimmune disease, biological agent, switch rate, efficacy and adverse side effects.

Results: Of the 124 patients using biological agents, 19 patients (15.3%) were older than 65 years (y): mean age 69 y. Only 1 patient was older than 75 y (80 y); 12 (63%) were female. Rheumatoid arthritis (RA) was present in 13 patients; anquilosing spondylitis (AS) in 2 patients and psoriatic arthropathy (PA) in 1. The use of biological agents was Off label in 3 patients with Systemic lupus erythematosus in 1; Wegener syndrome in 1; and thrombotic thrombocytopenic purpura in 1. As first line therapy, etanercept was used in 11 patients (9 with RA, 2 with AS and 1 with PA); rituximab was used in 5 patients (2 with RA and 3 off label); adalimumab in 1 and tocilizumab in 1 patient, both with RA.

Discussion: After a mean duration of 3.7 years of therapy, 4 (21%) AR patients required a switch in therapy with etanercept (n = 3) due to primary failure (n = 1) and due to infectious adverse events (n = 2) namely pulmonary tuberculosis and palmoplantar pustulosis, both treated with success; switch in therapy with tocizilumab (n = 1) patient was due to primary failure. The switch was made from etanercept to tocizilumab (n = 2) of wich one still awaits the begining of the therapy, and rituximab (n = 1); and from tocizilumab to infliximab (n = 1). Suspension ocurred in 2 (10.5%) AR patients due to angioedema (rituximab) and prostate adenocarcinoma (etanercept). Concerning efficacy in AR patients the DAS 28 pre biological therapy was 5.35 and at present 2.85.

Conclusions: The overall rate of adverse events reported with biological therapies in the elderly is not well known. In our group of patients for a mean of 3.4 years of treatment with biological agents, the rate of adverse events was 10.5%. The stop/switch rate was 32%, the same as other published articles. Etanercept and rituximab were an effective form of therapy, well tolerated in this group of elderly patients with AR.

IF-154
TREATMENT OF SEVERE AND/0R REFRACTORY BEHÇET DISEASE WITH ANTI-TNF: ANALYSIS OF 32 PATIENTS

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Objectives: To evaluate the efficacy and safety of rituximab in patients with Behçet disease and severe involvement refractory to conventional treatment.

Material and method: In 2006, the Autoimmune Diseases Study Group (GEAS) of the Spanish Society of Internal Medicine created the BIOGEAS registry, a multicenter study designed to collect data on the use of biological therapies in patients with systemic autoimmune diseases refractory to conventional treatment (failure at least of two immunosuppressants). The information is collected from cases reported by members of GEAS (last updated: 30 May 2012).

Results: 32 patients with Behçet disease treated with anti-TNF agents (infliximab 21, adalimumab 6, and etanercept 5 patients) have been included in the registry (19 women and 13 men, with a mean age of 37 years. The clinical manifestations presented by these patients that motivated the indication were as follows: uveitis (19 cases, 63%), skin and mucous involvement (8 cases, 27%), arthritis (5 cases, 17%), central nervous system involvement (5 cases, 17%), gastrointestinal involvement (5 cases, 3%) and lung involvement (1 case, 3%). They were heavily treated patients, who had previously received corticosteroids and cyclosporine A (20, 63%), methotrexate (14, 44%), azathioprine (11, 34%), colchicine (9, 28%), pentoxifiline (5, 16%), cyclophosphamide (5, 16%), mycophenolate (4, 13%), tacrolimus 3 (9%) interferon (3, 9%), thalidomide (2, 6%) and immunoglobulins (1, 3%). In 27 (84%) concomitant immunosuppressive therapy was added to biological therapy. 27 (84%) patients had a favorable response to treatment (72% complete response, partial response 12%, 16% no response). The response to treatment by organ was as follows (analyzed those organs with a minimum of 5 cases): eye (78% complete response,

11% partial response and 11% no response), mucocutaneus (63% complete response, 12% partial response and 25% no response), arthritis (60% complete response, 40% partial response) and central nervous system (80% complete response, 20% no response). The time of follow-up was 23 months. 4 patients (13%) suffer a relapse during follow up. 6 (19%) patients suffered an adverse event, including 3 (9%) an infection, two cases of demyelinating disease and one case of psoriasis. No patient died during the follow-up period.

Conclusions: Anti-TNF treatment may be an effective and safe option for patients with severe Behçet disease refractory to conventional treatment. Uveitis was the clinical problem that was treated more frequently with anti-TNF, achieving in more than 80% of cases a favorable response. Two patients developed probable demyelinating disease after the treatment.

IF-155
SCLERODERMIC SYNDROMES: THREE CASES REPORT

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Objectives: Sclerodermic syndromes are defined by the presence of an increase in the dermis and the hypodermis of the collagen deposits. These depostis of collagen cause skin fibrosis and induration, which reduces the skin elasticity. The incidence is between 3.7 and 19 new cases per million inhabitants/year and the prevalence between 30.8 and 286 cases per million inhabitants/year. Affecting woman more often. The objective is to describe the clinical features of three cases of sclerodermiform syndromes which have been diagnosed and treated in the department of Internal Medicine at the Universitary Hospital of Fuenlabrada. This hospital covers a population of 230,000 inhabitants.

Results: We describe three different cases. The first is a 52 year-old, former smoker with hypercholesterolemia, induration and darkening of the skin of the abdomen and legs along with dysphagia and fever. The fingers presented taut skin and vasomotor phenomena. Hystological findings show a remarked fibrosing process of the reticular dermis and subcutaneous tissue he was finally diagnosed of systemic sclerosis. The next case consists of a 57 year-old man, former smoker, with hypercholesterolemia, DM type 2 and mitral insufficiency, that complained of increased diameter of the lower limbs, forearms and hands, with taut skin that hindered joint mobility. He had a thickened skin with erythema and peau d'orange with pitting edema, no signs of skin atrophy. Analytically it highlighted an important eosinophilia and histological findings were consistent with eosinophilic fasciitis. Tha last case was a male born in Equatorial Guinea that was admitted to the hospital in an acute confusional state. He admitted alcohol intake and begun to present a stuporous state. In the physical examination it draws attention a micropapular lichenoid rash predominantly in the thorax and upper extremities. The electroencephalogram showed diffuse encephalopathy and skin biopsy findings disseminated papillary mucinosis, consistent with scleromyxedema (associated with neurological disorders). Analytically, the three patients presented slightly elevated acute phase reactants (C-reactive protein < 4 mg/dl) with normal CBC (except case 2 who had eosinophilia). Case 3 had acute renal failure secondary to rhabdomyolysis (creatinine: 1.43 mg/dl and CK: 1907 U/L). In all cases the autoimmunity was negative. Thyroid hormones were normal and the protein profile was normal (except for case 3 with a monoclonal IgG lambda). The first two cases received corticosteroids (case 1 associated with methotrexate, and case two with hydroxychloroquine) and the third with intravenous immunoglobulins.

Conclusions: Although the clinical and laboratory findings present some differences, histological samples that include the subcutaneous tissue and muscle fascia, are essential for the differential diagnosis.

IF-156
HOW FREQUENT ARE RENO-PULMONARY SYNDROMES?

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Objectives: Reno-pulmonary syndromes encompass a wide range of entities, relatively infrequent and of autoimmune etiology, which should be included in the differential diagnosis of patients with acute renal impairment and/or anemia of uncertain etiology. Its diagnosis however is not easy and requires more targeted testing that facilitates a narrowing of a broad range of options. Still today, it's a challenging diagnosis with a clinical and prognostic impact. The objective of this study is to evaluated epidemiological, clinical and laboratory data of the patient with this disease in Fuenlabrada's Hospital.

Material and method: Retrospective study including patients diagnosed of reno-pulmonary syndrome (encompassing in this group, granulomatosis with polyangiitis-in clinical practice split in microscopic polyangiitis and Wegener's granulomatosis-) at the Universitary Hospital of Fuenlabrada from date of opening (2004) until February 2012. The inclusion criteria include de evidence of autoimmunity and histological study in a compatible clinical setting. In the study, we evaluated epidemiological, clinical and laboratory outcomes.

Results: Of the 20 patients included, 5 of them were excluded because it was not possible to establish a specific diagnosis (there were no histological samples, laboratory tests...). The remaining diagnoses were distributed as follows: microscopic polyangiitis (9), Wegener (4) and Goodpasture (2). There was a slight predominance of males (57% vs 43%) and the clinical presentation was predominantly with renal failure (64%) together with an anemia, of varying severity (that affected 100% of the patients). The treatment consisted in a combination regime of corticosteroids and cyclophosphamide for at least a year, with good response either with partial remission or total in most cases.

IF-157
ABDOMINAL MANIFESTATIONS IN ANTIPHOSHOLIPID SYNDROME: OUR EXPERIENCE

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Objectives: Antiphospholipid syndrome (APS) is characterized by recurrent thrombosis, pregnancy losses and the presence of antiphospholipid antibodies. Venous or arterial thrombosis could involve any vascular territory resulting in a big variety of clinical manifestations. Abdominal involvement is not frequent and its main symptom is abdominal pain. To describe clinical features and prognosis of patients with APS and abdominal manifestations.

Material and method: Observational retrospective study from our cohort of patients with APS and abdominal involvement.

Results: Twelve patients were included (66% male, age in years 44.2) and we reviewed their clinical records. Main clinical manifestations were: abdominal pain (90%), arterial thrombosis (58%), venous thrombosis (33%) and bleeding (8%). Other clinical features were: livedo reticularis (16%), ulcers in lower extremities

(8%), thrombocytopenia (16%). Only one case presented with haemolytic anemia. About 83% of patients presented with abdominal involvement as first manifestation of APS. A CT angiogram was performed in more than 80% of patients, followed by arteriography (8%). Histologic findings showed vasculitis and thrombosis of small vessels. IgG Anticardiolipin antibodies were positive in 50% of cases and lupic anticoagulant in 41%. Anticoagulant treatment was started in more than 70% of patients and was combined with AAS and hydroxychloroquine in approximately 8% of cases. We used rituximab in 8% of cases who presented with recurrent thrombosis. About 8% of patients died before starting an adequate treatment.

Discussion: According to the medical literature, abdominal involvement was more frequent in young male. In our cohort, differing from other studies, we observed arterial thrombosis as the most frequent abdominal presentation. Indefinite anticoagulant is a safe and effective treatment to prevent recurrent thrombosis in APS.

Conclusions: Although abdominal manifestations are rare in APS, a proper diagnosis it's required in order to start a specific treatment to prevent major complications. We recommend including APS in differential diagnosis when we witness an abdominal complication and any thrombotic event. In our cohort, APS presented with abdominal involvement as first manifestation of the disease.

IF-158
SYSTEMIC SCLEROSIS: A DESCRIPTIVE STUDY

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Objectives: With this study we describe clinical manifestations presented throughout the disease and focused on skin ulcers and effectiveness of treatment for the same.

Material and method: We selected the Medical Records of 22 patients in outpatient follow-up to describe sex, clinical immunological, clinical manifestations and treatment.

Results: Of the 22 patients diagnosed with Systemic Sclerosis, 20 were women and 2 men. 9 of them had digital ulcers with good results with vasodilator therapy, except in one patient who required amputation of the same. Antibody Anti Scl 70 is present in most patients.

Discussion: Systemic sclerosis is a disease whose pathophysiology combines immune system activation, microvascular alterations and the proliferation of fibroblasts with a consequent increase in collagen deposition in tissues. Clinical manifestations include the characteristic skin thickening or scleroderma, Raynaud's phenomenon, altered gastrointestinal apparatus, mainly the esophagus, interstitial lung disease, pulmonary hypertension, renal disease and musculoskeletal system. The clinical expression of systemic sclerosis and prognosis can be very variable. There is no specific treatment and therefore healing thereof. But in recent years numerous therapies have proved effective in some of the manifestations of the disease.

Conclusions: 1. It is more common in females than males in a 9:1 ratio. 2. The prevalence of digital ulcers is estimated between 30 and 60%. In our series of patients, were presented in 41%. 3. Pulmonary involvement: fibrosis, and esophageal: hypomotility and reflux are frequently present in these patients. 4. They are very important general measures such as avoiding snuff, stress and cold for the good management of skin involvement. 5. The use of vasodilators such as non-selective antagonist of endothelin receptors (bosentan) has good results in pulmonary hypertension and digital ulcers.

IF-159
ANTIPHOSPHOLIPID SYNDROME (APS) IN A INTERNAL MEDICINE DEPARTMENT

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Objectives: To describe the clinical manifestations, analytical data and management of patients with diagnosis of APS in a General Internal Medicine Department.

Material and method: We performed a descriptive analysis of clinical, epidemiological, analytical and treatment profile of 48 patients with diagnosis of APS in an Internal Medicine Department from 1st January 2000 to 31st May 2012.

Results: From a total of 48 patients included, 29 were women with a mean age of 44.13 years (SD ± 18.86) and 19 men with a mean age of 46.87 years (SD ± 17.62). 36 patients (75%) has a primary APS and 12 (25%) had APS associated to autoimmune disease (AD). From those associated with AD, 10 were due to lupus erythematosus (SLE) and 2 due to ulcerative colitis. Of all patients, 50% debuted with venous thromboembolism (11 patients had a pulmonary embolism and deep vein thrombosis 13), 43.75% debuted with arterial thrombosis (13 stroke, 1 thrombosis of the subclavian artery, 5 thrombosis of the central artery of retina, 1 acute myocardial infarction and 1 repeat abortion), 4.16% with antibody-positive (with a history of neurological symptoms) and 2.08% with skin lesions. The most common lupus anticoagulant was the antiphospholipid antibody (85.41%). The treatments were: 60.41% in anticoagulation with acenocoumarol, a 2.08% anticoagulated with warfarin, an anticoagulant and antiplatelet 20.83% (half with cardiovascular risk factors), an antiplatelet 14.58% and 2.08% by antiplatelet therapy plus heparin sodium (patient with catastrophic APS). In an average of 7 years of follow-up, complications were: a stroke after removing warfarin, cerebral venous thrombosis, a stroke and renal infarction (infradosificate acenocoumarol), three TIA, gastrointestinal bleeding (acenocoumarol overdose), a psoas hematoma and three died (1 EP complicated, 1 SLE and 1 catastrophic APS).

Discussion: Several studies published about primary antiphospholipid syndrome have estimated a prevalence up to 0.3 to 1% of population, affecting more often women than men (5:1), especially in patients with other associated pathologies. Most cases, about 53%, are primary, 36% associated to SLE and the rest of them to another autoimmune disease. The main age of onset is around 30 years and even though patients with no other diseases usually have a decade later onset, APS has been described at any age. The main form of presentation is deep vein thrombosis followed by thrombocytopenia, although patients over 50 years, especially male, often present with angina and stroke. Epidemiological results in our series do not match those described in literature, showing our study a larger proportion of male patients slightly older than usual. Those epidemiological data correlate our clinical findings, according to what's been published, about the presence of more severe events (pulmonary thromboembolism and stroke). We recalled a high number of patients under treatment with antiplatelet or anticoagulant drugs either because of their higher incidence of additional cardiovascular risk factors or the presence of more than one clinical event.

Conclusions: The proportion of patients presenting with associated- antiphospholipid syndrome is low in comparison with medical literature, possibly due to a sooner antiaggregation in those cases with antibodies positive. A large number of main thrombotic events have been seen in our study, what we correlate with an increase in the average age of our population so with the

presence of another cardiovascular risk factors lupic anticoagulant was the immunologic parameter most frequently involved.

IF-160
ADULT STILL'S DISEASE IN A THIRD LEVEL HOSPITAL

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Objectives: To look up the clinical features of adult Still's disease of inpatients admitted in Internal Medicine Department of Virgen de Las Nieves Universitary Hospital (Granada) for the last 14 years. To study their symptomatology, complementary findings and their laboratory results. Finally, to clarify if our results are consistent with the previously published literature.

Material and method: It is a retrospective descriptive study of inpatients with the final diagnosis of adult Still's disease admitted in Internal Medicine Department of VN Hospital in Granada from January 1998 to March 2012. Although the low prevalence of this illness (it is described in many sources around 0.16 cases/100,000 people), our sample is formed by 10 cases. We have used a previously established data collection protocol of the sample and we have revised medical stories and finally, an statistical analysis with SPSS program.

Results: The sample included 10 inpatients with a mean age of 29 years old (min 17-max 52, SD 10.2, median 26.5). Most of them were female (80%, 8/10). The age range between 17 and 30 involves 80% of them. We have analyzed if our patients meet Yamaguchi criteria and 80% of them were positive (presence of 5 features (2 being major diagnostic criteria)). The other 20% were negative with 4 points. Fever (more than 39 ºC lasting more than 1 week) was present in 100% of cases. Asthenia was concomitant in 80% and non-measured weight loss only in 20% of them. The arthralgias (80% (8/10)) and arthritis (60%) lasted at least 2 weeks. Skins lesions were present in 80% of them (from them 70% with the typical salmon-colored nonpruritic maculopapular rash). Other common symptoms were odynophagia (50%) and dyspnea on moderate effort (30%) in the context of a respiratory cold. To stand out of the physical examination, we found adenopathies (40%, also in imaging) and no megalies, being the rest normal. To highlight between laboratory results, we find leukocytosis (10,000/mL) in a rate of 70% and left deviation in 80%, elevated APR [ESR > 50 (100%), CRP > 5 (90%)], ferritin > 500 (20%). ANA, autoimmunity test and RF were negative in 100% of cases. All microbiological test, serologies, echocardiography (made in 20% of them) were negative. Biopsy was performed in 20% in adenopathies (20%, with normal AP study) and bone marrow (10%, also within the normal). The treatment was sustained on antipyretics, glucocorticoids (70% of patients, with a maintenance dose of 0.5 mg prednisone/kg/day in most of them), NSAIDs (50% of cases, especially indomethacin) and ASA (10%). In most of the cases and with the joint assistance, we achieved a good control of the disease. Only in 30% of the cases we needed immunosuppressive drugs (methotrexate) to improve the treatment response.

Discussion: We have found out that adult Still's disease is a cause of fever of unknown origin in young adults with a very suggestive clinical picture and negative results of plenty of studies such as microbiological, autoimmune tests and imaging. Moreover, sometimes the empiric use of glucocorticoid and immunosuppressive therapy have an early response and that point can prompt us to think about this clinical entity. Furthermore, our results are quite consistent with the previously described in literature.

Conclusions: Adult Still's disease is an inflammatory disorder with quotidian fevers, arthritis and a evanescent rash and negative results for microbiological and autoimmune tests. The mainstay of treatment are glucocorticoids, NSAIDs, ASA and the occasional aid of immunosuppressive agents.

IF-161
SUBCLINICAL ATHEROSCLEROSIS IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS EVALUATED BY CAROTID DOPPLER ULTRASOUND

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Objectives: Cardiovascular disease is a major cause of late mortality in systemic lupus erythematosus (SLE). The classic cardiovascular risk factors do not explain for if alone this increase in the morbidity and mortality. The carotid doppler ultrasound is a simple diagnostic technique that allows to evaluate the presence of subclinical atherosclerosis across the measure of carotid intima-media thickness (cIMT) and the presence of carotid plaques. The aims of our study have been: 1. To determine the prevalence of increased cIMT and carotid plaques in a women's cohort with SLE. 2. To investigate his possible relation with the traditional cardiovascular risk factors, SLE activity and treatment used.

Material and method: We conducted a transversal, retrospective and observational study in 90 women with SLE, registered in a database online (www.registroles.es) for the study of cardiovascular risk, and controlled in our hospital. The increase of cIMT and the presence of carotid plaques were evaluated by Doppler ultrasound (B-mode). We assessed classical cardiovascular risk factors, and markers of lupus activity. Data were analyzed using SPSS (version 19).

Results: The patients' mean ± SD age was 38.8 ± 12.3 years. The most important cardiovascular risk factors in descending order were: sedentary (68.9%), dyslipidemia (41.1%) and smoking (35.6%). 15.6% patients had a history of early cardiovascular disease. Only 11.1% received lipid-lowering therapy, and 31.1% antipaludic drugs. With regard to disease activity: C reactive protein mean was 10.08 mg/L, erythrocyte sedimentation rate 31.59, and SLEDAI of 5.14. The 64.4% had hypocomplementemia C4 and 20% C3 hypocomplementemia. The average number of outbreaks was 3.87. Carotid doppler ultrasound was pathological in 24/90 patient (26.7%). There were carotid plaques in 21/90 patient (23.3%, of that 10% were calcified plaques, and 13.3% fibrolipidic plaques), and an increase of the GIM in 13/90 (14.4%). The presence of plaques was associated with age (p = 0.01), smoking (p = 0.04) and the number of outbreaks (p = 0.00), differences statistically significant.

Discussion: The prevalence of pathological findings in carotid Doppler ultrasound was similar to that observed in previous studies. A high percentage of patients had classic cardiovascular risk factors are potentially reversible, especially hypertension, dyslipidemia, sedentary lifestyle and smoking. The degree of activity of SLE was high, with a considerable percentage of outbreaks, complement consumption and increased CRP. Further studies are required (with healthy controls) to confirm these findings.

Conclusions: Noninvasive diagnostic techniques such as carotid ultrasound allow us to investigate the importance of subclinical cardiovascular disease in patients with SLE. Our study shows a high prevalence of pathological findings in the carotid Doppler ultrasound (26.7%), in a cohort with low mean age (38.8 years). Furthermore,

the prevalence of traditional cardiovascular risk factors, potentially treatable was very considerable.

IF-162
PREGNANCY OUTCOMES IN PATIENTS WITH SYSTEMIC AUTOIMMUNE DISEASES AND/OR ANTIPHOSPHOLIPID ANTIBODIES

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Objectives: To describe pregnancy outcomes in connective tissue diseases (CTD) and/or antiphospholipid antibodies (APA). To compare pregnancy outcomes in 3 groups: CTD, CTD with APA and patients with APA alone. To evaluate clinical and immunological factors involved in those pregnancy outcomes.

Material and method: Retrospective study of all pregnancies followed-up since june 2007 in our Systemic Autoimmune Diseases Unit. Patients included had previous results of APA positive or a previous diagnosis of CTD: systemic lupus erythematosus (SLE), systemic sclerosis (SSc), Sjögren's syndrome (SjS) or undifferentiated connective tissue disease (UCTD). A follow-up protocol was designed, including clinical data like obstetric and thrombotic history, autoantibodies (ANA, ENAs, DNA, ACA IgG and IgM, AB2-GPI IgG and IgM and LA). Therapies used during pregnancy were also included. Pregnancy outcomes were collected in a clinical review 3 to 6 months after birthdate: gestational age, weight at birth, eclampsia or preeclampsia, miscarriages and CTD flares during pregnancy or 3 months postpartum. Univariate analysis with chi square tests was used.

Results: 143 pregnancies in 129 patients were included: 31 (21.7%) with UCTD, 22 (15.4%) SLE, 43 (30.1%) APA+, 23 (16.1%) UCTD + APA, 24 (16.8%) SLE + APA. 114 (79.7%) pregnancies ended in a newborn alive, with a mean pregnancy length of 38 weeks and a mean weight at birth of 3,041 g. The overall results are shown in table 1. Factors related with worse pregnancy outcomes (miscarriages) were: Diagnostic group (worse outcomes in APA, then in CTD-APA and then in CTD, p 0.029). Lupus anticoagulant (p 0.025). IgM anticardiolipin (p 0.047). Any APA (p 0.010). Previous miscarriages ($p < 0.001$). ANA positive (p 0.044). Use of aspirin prior to pregnancy (p 0.001).

Discussion: Worse outcomes are seen in patients with previous miscarriages and APA, especially with LA and IgM ACL. Aspirin prior to pregnancy and ANA negative patients have worse results, probably due to a bias because of the presence of APA.

Conclusions: We report worse pregnancy outcomes in patients with APA, with a higher rate of miscarriages than in CTD.

Table 1 (IF-162). Pregnancy outcomes in patients with CTD and/or APA

Results	Number of pregnancies (out of 143)	% of pregnancies
Miscarriages	28	19.6%
Prematurity	19	13.3%
Low weight at birth	17	11.9%
Eclampsia or preeclampsia	4	2.8%
CTD flares	29	20.3%
1st trimester miscarriage	23	16,1%
Fetal deaths	5	3.5%

IF-163
ACTIVITY LOG OF A SYSTEMIC AUTOIMMUNE DISEASE SPECIALIZED OUTPATIENT CONSULTATION

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Objectives: To analyze the causes and reasons for outpatient consultation, diagnostics, therapeutic approach and comorbidities of patients attending a Systemic Autoimmune (AI) Disease Specialized Consultation, in order to evaluate the suitability of the existence of such consultations realized by an Internal Medicine physician; extract epidemiological data on the prevalence of systemic autoimmune diseases in our environment.

Material and method: We analyzed epidemiological data, diagnostics, therapeutic approach and treatments of 127 consecutive patients who attended this outpatient consultation (belonging to a university hospital complex in Madrid, Spain) between 1/9/10 and 31/5/11.

Results: 127 patients were included in this study (74% women, 26% men); mean age was 59.66 + 18.12 years old. 66.1% of all the patients came to this consultation referred from other Internal Medicine physicians, 22.9% came from other medical specialties physicians, and 11% were derived from primary care. Reasons for consultation: previous diagnostic of AI disease in 43.3% (which were referred for treatment and follow-up), plus suggestive symptoms and/or suggestive blood test of AI disease in 56.7%. Concerning comorbidities in this group of patients, 14.2% of them had digestive, 13.4% cardiovascular, 11.8% nephro-urological, 11.8% haematological and 8.7% neoplastic disease previously diagnosed, to mention some examples. Diagnosis for erythematosus systemic lupus supposed 14.2% of all patients, scleroderma 5.5%, Sjögren syndrome 10.2%, sarcoidosis 3.1%, temporal arteritis 4.7%, another type of vasculitis 4.7% (PAN, cryoglobulinemia...), primary biliary cirrhosis 3.1%, and undefined AI disease with positive auto-antibodies 14.2%, among others. On the other hand, 21.3% of all patients were not diagnosed with an AI disease. 4.7% were diagnosed of infectious non AI disease, 1.6% of haematological non AI disease, and 15% of other type of non AI disease. The mean time of monitoring was 32 + 30 months. 39.4% of total were already receiving specific treatment for an AI disease. 75.6% continued follow-up and 21.3% were discharged from this consultation. In a deeper analysis, statistically significant association was found between diagnosis for erythematosus systemic lupus and neoplastic comorbidity, and also between diagnosis for an undefined AI disease and haematological comorbidity. Considering age and diagnosis of AI disease, we found association between diagnosis for Sjögren's syndrome and the group of individuals above 65 years old, and between the diagnosis for undefined AI disease with positive antibodies and the group of patients below 65 years old.

Discussion: Most of our patients were women, mainly submitted by Internal Medicine or primary care physicians, which justifies the elevated mean age and the high prevalence of comorbidity. The broad spectrum of autoimmune diseases diagnosed and the high prevalence of comorbidity, requiring long follow-ups, highlights the benefit of an integrate specialty such as Internal Medicine to attend these patients.

Conclusions: The patients with an AI disease referred to this outpatient Internal Medicine consultation have a high percentage of comorbidity. The broad spectrum of autoimmune diseases diagnosed, the high prevalence of comorbidities, as well as the need for monitoring and specific treatment, highlight the benefit of an integrate specialty such as Internal Medicine to attend these patients.

IF-164
ANTIPHOSPHOLIPID SYNDROME (APS) WITH ISCHEMIC NEUROLOGIC MANIFESTATIONS: DESCRIPTION OF SEVEN CASES

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Objectives: To describe the epidemiological, clinical characteristics and the antiphospholipid antibodies (aPL) present in the cases of APS with neurological manifestations of cerebral ischemia as diagnostic criterion, registered at the database of the Unit of Autoimmune Systemic Diseases of the HUCA, in Asturias from May 2006 up to December-2010.

Material and method: Retrospective review of computerized reports of 7 patients recorded in the database of the Unit with APS and neurologic manifestations as diagnostic criterion. We recorded: Age, sex, kind of APS (primary or secondary), clinical neurological manifestations, arterial territory involved, thrombocytopenia or hypertension if associated, laboratory diagnostic criteria (positive aPL test), transthoracic echocardiography results and treatment given (anticoagulants, aspirin, hydroxychloroquine).

Results: 32 patients with APS fulfilling Sydney's diagnostic criteria were registered between May in 2006 and December 201, 7/32 (21.87%) with neurological manifestations as clinical criterion. 6/7 they were women, middle ages to the diagnosis 36 years (15-60 years). The clinical manifestation was stroke or transient ischemic attack due to middle cerebral artery occlusion in 5/7 patients; one patient had chorea and white matter lesions on MRI and in another one had an ischemic stroke affecting basilar arterial circulation. Only 2 of them had migraine as associated condition. There was no livedo reticularis registered. Only in 2/7 arterial hypertension was registered, only a patient with SLE presented thrombocytopenia and in only a case cardiac murmur was registered. The positive test for aPL activity was lupus anticoagulant (LA) t in 3/7 patients and anti-beta2glycoprotein I IgG in 4/7 (3 of them with associated anticardiolipin antibody (aCL) IgG). Only one patient had both LA and ACL IgG positive activity tests. There was only one positive IgM aCL test. Though 6/7 patients had positive ANA test, only 3 were assembling SLE's diagnostic criteria. A transthoracic echocardiography was performed in all patients, and in 6/7 of them a mitral slight insufficiency was diagnosed. Tests for detection of proteinuria in urine of 24 hours were not performed in any patient. Curiously the only patient male was the only one with positive Ig M aCL test with high titers, he had associated hypertension, the stroke was affecting basilar territory and he was also the only patient without valvular affectation in the echocardiography. 6/7 patients started oral anticoagulant therapy, 5/6 with acenocumarol and in a case with rivoraxaban. The patient with chorea and white matter lesions on MRI was the only one who received treatment with aspirin, associated to hydroxychloroquine.

Discussion: The APS is strongly linked to ischemic stroke in patients under the age of 50, and it is associated with feminine sex, presence of hypertension, valvular heart disease, positive IgG aCL and anti-beta-2-glycoprotein I tests and stroke or TIA of de middle cerebral artery. Nevertheless, there are few trials that apply strict diagnostic criteria. In patients with definitive APS, high-intensity warfarine is used, but little evidence exists regarding optimal treatment regimens.

Conclusions: 1) APS must be ruled out in patients under the age of 50 and stroke, especially if women and without another vascular risk factors. 2) Our patients had similar epidemiologic and clinical features and aPL activity test as registered in literature, including valvular heart disease diagnosed by transthoracic ecochardiography. 4) As recommended, secondary thromboprophylaxis with oral anticoagulants was initiated for the chronic management of the patients 6) Other conditions associated with the APS as livedo, migraine, nephropathy can be ignored if not specifically searched.

IF-165
ISCHEMIC MANIFESTATIONS IN ELDERLY AND VERY ELDERLY PATIENTS WITH GIANT CELL ARTERITIS

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Objectives: To determine the prevalence of irreversible ischemic damage in a cohort of elderly and very elderly patients with giant cell arteritis (GCA), and to compare it with younger patients. To identify clinical and serological risk factors related to ischemic events according to the age of onset of the disease.

Material and method: We included all the patients diagnosed of CGA in our hospital from 1991 to 2011, according to the American College of Rheumatology (ACR) classification criteria. Patients were classified according to the age at GCA diagnosis as: elderly (more than 75 years old at GCA diagnosis) and very elderly (more than 80 years old at GCA diagnosis). Statistical analysis was performed using the SSPS vs 15.0.

Results: Among the 174 patients included in the study, 95 (54.6%) patients were considered elderly and 55 (31.6%) patients very elderly. Neither headache (86.3%), nor jaw claudication (53.7%), nor local hyperesthesia (24.3%) and polymyalgia (40%), were more common in the elderly and very elderly patients than in the global cohort. However, both permanent amaurosis and especially permanent bilateral amaurosis were significantly more prevalent among patients older than 75 years old at GCA diagnosis ($p = 0.034$ and $p = 0.010$, respectively). Anemia was more frequent in elderly and very elderly patients ($p = 0.028$), and low VSG (< 50 mm/h) was more frequent in young patients ($p = 0.017$). Thrombocytosis (> 500,000 platelets) was more frequent among elderly patients with permanent amaurosis ($p = 0.027$). No statistical differences were found related to the presence of intimae hyperplasia and inflammatory infiltrate in artery biopsy from elderly patients compared to young patients. However, inflammatory infiltrate and giant cells were significantly more prevalent in temporal artery biopsy from elderly patients with permanent bilateral amaurosis ($p = 0.034$ and $p = 0.028$, respectively). Multivariate analysis showed: was related to the presence of jaw claudication ($p = 0.021$), inflammatory infiltrate in temporal artery biopsy ($p = 0.043$), VSG > 80 mm/h ($p = 0.022$) and age > 75 years old at GCA diagnosis ($p = 0.020$). We did not found any significant correlation between permanent amaurosis and vascular risk factors.

Discussion: GCA is a vasculitis of large and medium-sized vessels, affecting the Aorta and its main branches with a predisposition to the extracranial circulation. GCA is the most prevalent vasculitides among the elderly people in the European countries and its main source of comorbility and residual damage arises from the irreversible ischemic events due to the inflammation of the vessel walls. Currently, according to the majority of reported series, around 15% of patients with GCA will suffer and irreversible ischemic damage. It is well known that the very elderly often present a distinct clinical pattern of some autoimmune diseases. Indeed, this work demonstrates that patients with GCA and age > 75 are at increased risk of suffering and irreversible ischemic event and a greater impairment of their quality of life. Notably, classical vascular risk factors were not significantly correlated with ischemic events in the GCA. Therefore a more intensive management and a close follow-up, at least in the earliest stages of the disease, should be considered in this subgroup of patients with GCA.

Conclusions: Permanent amaurosis, the most frequent ischemic sequel in GCA patients, is significantly more prevalent among

patients older than 75 years at CGA diagnosis. In fact, being older than 75 years old at the onset of the disease is a major risk factor for irreversible amaurosis. Therefore, these patients should be managed cautiously and quickly treated when the suspicion of GCA arises.

IF-167
CLINICAL AND THERAPEUTIC CHARACTERISTICS OF PATIENTS WITH BEHÇET IN THE SERVICE OF INTERNAL MEDICINE AT A GENERAL HOSPITAL

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Objectives: To evaluate the epidemiology and the clinical manifestations, both at the beginning as during the course of the disease. We evaluated the therapy received in patients diagnosed with Behçet's disease at the Internal Medicine department of a general hospital.

Material and method: We identified all patients diagnosed with Behçet's disease in the outpatient clinic of Systemic Diseases (Internal Medicine) during the last six months (December 2011 to May 2012). They conducted a retrospective study regarding 14 patients. Information was collected about sociodemographic, clinical characteristics at the beginning and during the evolution of the disease. Also we evaluated the therapy received and iatrogenic derived from it. Statistical analysis was performed using the 20.0 version SPPSS.

Results: We studied 14 patients diagnosed with Behçet's disease in the last six months. The mean age was 34.5 ± 8.9 years. Most patients belonged to Caucasian race in 91.7%. 50% of patients were male and the rest women. The delay in diagnosis was 7 ± 12 months. In 85.7% of patients HLA B51 was negative. Clinical manifestations in the debut of the disease were: oral thrush (41.7%), genital ulcers (8.3%), oral and genital aphthosis (33.3%), fever (8.3%), rethrombosis with the same percentage as the latter. Up to a total of 42.9% had one of the following manifestations: lymphadenopathy, skin lesions, arthritis, headache or papilledema. The signs and symptoms presented from disease onset to the present were: fever (50%), oral thrush (85.7%), genital ulcers (57.1%), pseudofolliculitis (35.7%), erythema nodosum (14.3%), arthritis (42.9%), aseptic meningitis (7.1%), polyneuropathy (7.15), thrombosis (35.7%), anterior uveitis (14.3%) and retinal vasculitis (21.4%).In terms of treatments received, medications most frequently used was oral corticosteroids (93.3%) at a mean dose of 30 mg/day, followed by immunosuppressants (azathioprine 60%, 40% methotrexate, cyclophosphamide or cyclosporine A 20%), colchicine or NSAIDs (53.3%), antiplatelet (26.7%) pentoxifylline (20%), anticoagulants (13.3%) and biological (adalimumab infliximbab 6.7% and 6.7%). Other therapies used were sucralfate (20%) and hydroxychloroquine (13.3%). Adverse reactions to therapy used stressed skin lesions (22%), infections of any type (14.3%) and laryngeal edema (14.3%). Other less common (7.1%) were steroid diabetes, hypertension, renal failure, osteopenia, cataracts, myopathy, and asthenia.

Discussion: Behçet's disease, despite being an uncommon disease in our environment, debuts and/or presents with a variety of clinical manifestations and a variety of complications, so early diagnosis is essential to achieve an adequate control.

Conclusions: The total number of patients diagnosed with Behçet's disease in the consultation of a Systemic Diseases Internal Medicine over the last six months was 14. Most of them were young adults (mean age 34.5 ± 8.9 years), sex as often (50% male, 50% women). Oral aphthosis was the most frequently encountered clinical manifestation in both the debut (41.7%) of the disease or during its course (85.7%), followed by genital ulcers (57.1%) and fever (50%). Oral corticosteroids (93.3%) were the most commonly used therapy in these patients at some point in their illness. The most frequently observed iatrogenic skin lesions corresponded to (22%).

IF-168
AUTOIMMUNE DISEASE, URTICARIAL REACTION OR ANGIOIMMUNOBLASTIC T-CELL LYMPHOMA?

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Objectives: Angioimmunoblastic T-cell lymphoma (AITL) is a rare type of non-Hodgkin lymphoma. Patients typically present systemic manifestations, including fever, lymphadenopathy, rash, and less often with arthritis and autoimmune symptoms. For these reasons, these patients are mostly admitted in the Rheumatology and Internal Medicine Departments, instead of Hematology services. Our aim was to describe epidemiological, clinical and analytical characteristics of a series of patients diagnosed of AITL in our tertiary referral hospital from 2000 to 2012.

Material and method: We retrospectively analyzed all cases of AITL pathologically diagnosed from 2000 to 2012. Epidemiological, clinical and laboratory data, all of which was enclosed in the patients' clinical history, were analyzed. We used SPSS program to calculate our results.

Results: In the analyzed sample there were 7 patients, 3 men and 4 women; the median age was 60.14 years (range, 25-80 yr), everyone Caucasian, 6 were born in Spain and 1 in Romania. At diagnosis, localized nodes were present in 14.3% of patients, and were generalized in 85.7% of cases. Asthenia was reported in 42.9% of cases, spleen enlargement in 57.1% and hepatomegaly in 42.9%. A cutaneous eruption, morbilliform, urticarial, or more polymorphic, was present in 42.9% of patients; in 28.6% of them, the eruption was reported after drug administration. Musculoesqueletal manifestations, such as myalgias, were described in 57.1% of cases. Other clinical manifestations included arthralgia (28.6%) or arthritis (14.3%); night sweats (28.6%); weight loss (28.6%); pruritus (42.9%); gastrointestinal manifestations (42.9%); disnea (14.3%); pulmonary involvement (14.3%). Among laboratory abnormalities there were elevated lactate dehydrogenase levels (42.9%), hypergammaglobulinemia (42.9%), beta 2-microglobulin elevation (71.4%), hemolytic anemia (14.3%), no hemolytic anemia (28.6%) and thrombocytopenia (28.6%).

Discussion: AITL must be included into the differential diagnosis when a patient presents systemic symptoms such as rash, musculoesqueletal manifestations, constitutional symptoms related to anemia and weight loss in the 6th or 7th decade of life. Anemia, thrombocytopenia, elevated serum lactate dehydrogenase (LDH), polyclonal hypergammaglobulinemia, hemolytic anemia and elevated beta-2 microglobulin may be present in the blood analysis. Biopsy of the lymph nodes and assessment of the morphology and immunophenotyping are mandatory to make the diagnosis.

Conclusions: Our current study underlines the diversity of presenting manifestations of angioimmunoblastic T-cell lymphoma which sometimes mimics autoimmune diseases and urticarial reactions.

IF-169
OUTCOMES OF RETRIEVABLE VENA CAVA FILTERS

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Objectives: To assess adequacy of indications, efficacy and safety of retrievable vena cava filters (RVCF).

Material and method: All patients who underwent placement of a RVCF from January 1 until December 31, 2011 were selected from the prospective database of the Interventional Radiology Service of the Complexo Hospitalario Universitario de Vigo, a tertiary care hospital. Clinical records of all of them were reviewed and clinical and analytical data were recorded. The follow-up period was defined as the time between the implantation of the RVCF to the last evaluation by a doctor or to the date of death. Complications of RVCF were defined as death resulting from its implementation or withdrawal; bleeding, thrombosis or infection of the skin at the access point; pseudoaneurysm; filter migration; perforation or thrombosis of the inferior vena cava and post-thrombotic syndrome. Data were analysed using the SPSS statistical program, version 18.0. Descriptive statistics including the percentage, mean ± SD and interquartile range were used.

Results: 15 patients underwent placement of a RVCF. Any other type of vena cava filter was implanted in the period of the study. The mean age was 66.8 ± 16.34 years (range 21-95) and 53% were women. The most frequent indications were: bridge to anticoagulation, in elective surgery or other situations of risk of bleeding, (53%) and major bleeding (33%). Other indications were: 1 recurrence of pulmonary embolism (PE) despite optimal anticoagulant dose of LMWH and 1 floating thrombus in iliac vein during an outbreak of Crohn's disease. Any RVCF was placed to prophylaxis. Only 1 patient (7%) had a recurrence of PE despite RVCF, 64 days after filter placement; the indication had been recurrent PE despite an optimal anticoagulation. This patient had a peripheral progressive polyneuropathy of unknown origin, and died at 2 days of this recurrence of PE because of a respiratory failure due to hypoventilation. The filter was implanted in the first 3 months after the venous thromboembolism in 12 (92%) out of the 13 patients in whom the indication of RVCF had been bridge to anticoagulation or bleeding. Only 1 of these 13 patients (8%) had a venous thrombosis of the lower limb while anticoagulation was withdrawn. There were no complications resulting from the implantation of the RVCF. The RVCF was withdrawn in 8 patients (53%), without any complications, on average at the 24.8 days of implantation (range 14-46).

Discussion: There are 3 types of vena cava filters: permanent, temporary and retrievable. Currently, the use of RVCF is becoming more frequent. RVCF offer the option of withdrawing or permanently maintained. Despite the positive results in recent studies, there are several issues that remain unresolved: the adequacy of indications, the appropriate maximum time to maintain the filter in place and the possibility of effective and safe retrieval.

Conclusions: The most frequent indications of RVCF were bridge to anticoagulation and bleeding, according to the current recommendations. RVCF in these situations is effective in preventing pulmonary embolism and is safe.

Osteoporosis

O-7
EPIDEMIOLOGY OF OSTEOPOROTIC HIP FRACTURES IN A REGIONAL HOSPITAL IN BURGOS, SPAIN

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Objectives: To describe the epidemiological characteristics of hip fractures in patients admitted in a regional hospital in Southern Burgos, Spain.

Material and method: Retrospective, observational study including all patients aged 45 years or more with acute hip fracture admitted to our hospital between January and December 2010. We excluded patients with pathological fractures (neoplasm, Paget´s disease, bone cyst etc) and also fractures due to a severe trauma (falls on the hip from more than standing height). Data collected included age, sex, place of residence (rural or urban area/home or elderly rehabilitation centers), type and side of fracture, previous hip fracture, earlier treatment with calcium/vitamin D supplements or anti-osteoporotic drugs, postsurgical complications and mortality. The source of information employed was that of the database of "Clinical Documentation and Admission Service", identified by codes 820.0 through 820.9 of the International Classification of Diseases ninth edition (ICI-9-CM).

Results: There were 63 cases reported of hip fractures (12 men -19.05%- and 51 women -80.95%-). Mean age was 84.70 (range 45-90). Most of them, 92.60% (n = 58), were residents of the rural areas. A total of 45 hip fractures (71.43%) lived at home, and 18 (28.57%), in a nursing home. Place of fall was also at home in 45 cases (71.43%). A previous fracture was reported in 9 subjects (14.29%). Only 6 patients were taking calcium and/or vitamin D supplements (50% both calcium and vitamin D), and 2 received bisphosphonates (risendronate) before fracture. There were no significant differences with respect on the type of hip fracture (50.79% trochanteric fractures and 49.21% cervical ones). Fractures was on the left side in 52.38% of the cases (n = 33). Surgical repair or replacement was required in most cases (46.03% osteosynthesis and 44.44% prosthesis). Postoperative complications were observed in 28 patients (44.44%), most frequent were: urinary infection, acute renal insufficiency, delirium, adynamic ileus and cardiac failure. Overall and perioperative mortality (within the first month after discharge) was 25.40% and 12.50%, respectively.

Discussion: The present review showed a higher incidence of hip fracture in elderly patients (mean age 84), most of them living in rural areas (home or nursing home), who felt at home. The female-male ratio was 4.2. Only a few subjects received calcium/vitamin D supplements or an anti-osteoporotic drug before the event. No significant differences were observed related to the type of fracture (trochanteric or cervical). Most of patients required a surgical treatment (mainly osteosynthesis or prosthesis) and a high number of them suffered post-surgical complications such as infections, delirium, acute renal insufficiency and cardiac failure. Perioperative mortality was about 12%, increasing to 25% in terms of overall mortality.

Conclusions: The incidence of osteoporotic hip fractures increases exponentially with aging, being the most important of osteoporosis-related fractures in terms of death, functional dependence, and social cost. Estimation of risk of hip fracture, lifestyle interventions and properly drug therapies for the treatment and prevention of the osteoporosis, especially in elderly patients, may reduce these adverse outcomes.

O-10
RISK FACTORS FOR OSTEOPOROSIS AMONG PATIENTS WITH TYPE 1 AND TYPE 2 DIABETES

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Objectives: The prevalence of diabetes and osteoporosis are increasing in worldwide. The relationship between diabetes and osteoporosis is complex and, although it has been investigated extensively, the subject remains controversial The purpose of this study was to evaluate risk factors for osteoporosis among patients with type 1 and type 2 diabetes admitted to the National Institute of Diabetes, Nutrition and Metabolic Diseases, during January-December 2011.

Material and method: A retrospective study that evaluated 5,600 patients with diabetes. 171 of these patients have been diagnosed with osteoporosis. The diagnosis of diabetes was based on using ADA criteria/recommendations 2011 and diagnosis of osteoporosis was based on assessment of bone mineral density at the proximal femur by dual energy X-ray absorptiometry (DXA). The variables analyzed were sex, age, smoking, environment, alcohol consumption, history of fracture, menopause, BMI, HbA1c, treatment with oral antidiabetic medication or insulin, use of proton pump inhibitors (PPIs). The characteristics of cases with osteoporosis and controls were compared using the χ^2 test and the logistic regression method (Odds Ratio, OR) was used to determine osteoporosis risk.

Results: The average age for patients with diabetes and osteoporosis was 72.3 ± 7.8 years. Predictive factors of osteoporosis in multivariate analysis included female sex [odds ratio (OR) 7.1, 95% confidence interval (3.5-14.4), p = 0.0001], BMI less than 18.5 [OR 5.2 (1.02-1.1), p = 0.0017], age over 65 [OR 4.6 (2.3-8.1), p = 0.001], menopause [OR 4.4 (2.13-8.1), p = 0.0001], alcohol [OR 4.2 (1.8-9.5), p = 0.0001], smoking [OR 1.9 (1.01-3.8), p = 0.04], treatment with PPIs [OR 1.1 (1.01-1.8), p = 0.03].

Conclusions: In patients with diabetes who have positive risk factors for osteoporosis (female sex, BMI less than 18,5, age over 65, menopause, alcohol, smoking, treatment with PPIs), or in those who present with fractures, evaluation of bone density should be done and respective preventive or therapeutic interventions should be applied.

O-11
VITAMIN D LEVELS IN NEWLY DIAGNOSED BREAST CANCER WOMEN

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Objectives: Low levels of vitamin D have been related with carcinogenesis in cohorts like NHS (Nurses' Health Study) and WHS (Women's Health Study). Though several studies have found low 25OH vitamin D levels in newly diagnosed breast cancer women, a recent meta-analysis did not confirmed this inverse association between breast cancer and low 25(OH)D levels years before diagnosis. On the other hand, it has been described high incidence of vitamin D insufficiency at the end of neoadjuvant chemotherapy with anthracyclines-taxanes. We studied vitamin D levels from a group of patients newly diagnosed of breast cancer, before they received any cancer treatment and after chemotherapy.

Material and method: We determined vitamin D levels (1.25OH D3 and 25OH D3, ng/mL) from a group of 168 women diagnosed of non advanced breast cancer, before they received any treatment excepting surgery. We compare them with a control group of 55 women without cancer (matched by age). Then, we compared vitamin D levels in women before treatment, immediately after chemotherapy and 12 months after diagnosis.

Results: Women were 55 ± 12 years old. Patients and controls had not differences on postmenopausal status (62% vs 58%; p = NS), previous osteoporosis diagnosis (4.3% vs 1.8%; p = NS) or fractures history (14.6% vs 12.7%; p = NS). Patients had greater BMI (28.3 ± 5 vs 26.3 ± 3; p = 0.001) and were more sedentary (71.7% vs 52.7%). 71.4% of the women had normal vitamin D levels (at least 30 ng/mL), 20.5% had sufficient levels, 7.1% had insufficient levels and 0.9% deficient levels. There were not significant differences between patients and control for basal levels of 1.25OH D3 (38.4 ± 18.8 vs 48.9 ± 23.3; p = NS) or 25OHD3 (39.1 ± 14.8 vs 44.4 ± 15.5; p = NS). There were not significant differences between basal levels and those determined after chemotherapy for 1.25OH D3 (53 ± 2.8 vs 31.5 ± 27.5; p = NS) or 25OH D3 (28.4 ± 13.5 vs 36.6 ± 15.1; p = NS), neither between basal levels and those determined one year after diagnosis for 1.25OHD3 (46.5 ± 6.4 vs 21 ± 2.8; p = NS) or 25OHD3 (36.5 ± 11 vs 39.9 ± 14.9; p = NS).

Discussion: More than 70% of the breast cancer patients had normal vitamin D levels before treatment, without differences with controls. These results contrast with previous studies but are in the line of the meta-analysis. Perhaps these patients had higher levels than other who live in different latitudes because of more sun exposition hours. Besides, vitamin D levels did not significantly changed over time (diagnosis, after chemotherapy and one year after treatment), in contraposition with the previous study commented. So, further studies are needed to clarify the relationship between vitamin D levels and breast cancer, and the influence of chemotherapy.

Conclusions: The majority of the newly diagnosed breast cancer women had normal vitamin D levels before treatment, and these levels did not changed after chemotherapy or 12 months later.

O-12
VITAMIN D LEVELS IN WOMEN WITH BREAST CANCER AND AROMATASE INHIBITORS (AI)

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Objectives: Frequently, breast cancer patients have low bone mass before they begin aromatase inhibitors treatment. Recent studies have found that these women also have low levels of vitamin D before starting AI therapy, and these low levels continue after initiating them. Treatment with calcium and 25OHD protected against bone loss in those women. We studied vitamin D levels before and after IA treatment in a group of breast cancer women.

Material and method: We determined vitamin D levels (1.25OH D3 and 25OH D3, ng/mL) from a group of 122 breast cancer patients before initiating AI treatment (AI were prescribed with standard clinical criteria). After initiating AI all women were treated with calcium and at least 800 UI/day of vitamin D. Analysis were repeated after 12 and 24 months of treatment.

Results: Patients were 62.6 ± 9 years old and their BMI was 30 ± 5. Only 44.6% of the women consumed at least 3 dairy products and 86.1% were sedentary. 11.5% referred some fracture history. All women had been operated. 84.3% of them were treated with radiotherapy, 48.4% with chemotherapy and 33.6% had received previous tamoxifen. At the moment of initiating AI, 37.7% had normal bone mass, 45.1% had osteopenia and 17.2% osteoporosis. Basal 1.25OHD levels were 45.9 ± 13 and 25OHD levels 46.5 ± 18. 1.25OHD was under 30 ng/mL only in 9.8% of the cases and 25OHD in 14%. There were not significant differences between basal 1.25OHD levels from osteoporotic women and those of normal BMD patients (47.9 ± 14 vs 51.1 ± 13; p = NS), though basal 25OHD levels tended to be lower in osteoporotic women (48.2 ± 17 vs 40 ± 14; p = 0.06).

Basal 1.25OHD levels tended to be lower in osteopenic women than in normal BMD ones (42.5 ± 12 vs 47.9 ± 14; p = 0.058), but there were not significant differences for basal 25OHD levels (47.3 ± 20 vs 48.2 ± 17; p = NS). Curiously, basal 1.25OHD levels were lower in osteopenic women than in osteoporotic ones (42.5 ± 12 vs 51.1 ± 13; p = 0.023), without differences for 25OHD levels (47.3 ± 20 vs 40 ± 14; p = NS). After a year of treatment with AI, basal 1.25OHD levels did not changed (46.5 ± 15 vs 47.1 ± 13; p = NS), though basal 25OHD levels tended to increased (47 ± 18 vs 51.3 ± 17; p = 0.059). At this time, 1.25 OHD was under 30 mg/mL in 2.7% and 25OHD in 12.8% of the women. After two years of treatment, basal 1.25OHD (44.7 ± 20 vs 44.4 ± 5; p = NS) and 25OHD levels (52.2 ± 20 vs 52.6 ± 26; p = NS) did not changed. Then, all women had normal 1.25OHD levels and 15.4% had 1.25OHD levels under 30 mg/mL.

Discussion: Despite more than 60% of the patients in this study had osteopenia or osteoporosis before initiating AI therapy, and less than 50% consumed enough dairy products, vitamin D levels were above 30 ng/mL in 85-90% of the women, without relevant differences between osteoporotic, osteopenic and normal BMD patients. After 12 and 24 months of treatment levels did not significantly changed. Perhaps the latitude (sun exposition) could explain the difference with other studies.

Conclusions: Most of the women with breast cancer who initiate AI therapy had normal vitamin D levels, perhaps because of the sun exposition.

O-13
VITAMIN D LEVELS IN HIP FRACTURE PATIENS AND RELATION WITH MORTALITY

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Objectives: Patients with hip fracture have high mortality rates (near 30% one year after the fracture). Hypovitaminosis D is frequent in these patients: a study found that 55% of hip fracture patients had 25OHD levels < 30 ng/ml at Spain. On the other hand, low levels of vitamin D have been related with mortality in general population, and calcium/vitamin D supplements have shown to reduce mortality in the elderly. We determine vitamin D levels in a group of women with hip fracture and studied their relation with mortality.

Material and method: We determine basal vitamin D levels (25OHD, ng/ml) from 100 women (at least 60 years old) that were admitted to our hospital after an osteoporotic hip fracture (low intensity traumatism) in order to perform surgery. We registered age, BMI, origin (home or institution), consume of dairy products or calcium/vitamin D supplements, and measured the contralateral hip BMD (g/cm2). All patients were prescribed calcium, vitamin D and a bisphosphonate, when possible. We registered mortality at hospital and after 6 months of monitoring, and looked for related variables.

Results: Patients were 80.1 ± 7 years old and 95% lived at their home. Only 25% of the women used at least 3 dairy products. BMI was 24.9 ± 4 (11% of the patients had BMI under 20). 61.9% were osteoporotic and 38.1% osteopenic. 25OHD levels were 34.6 ± 15 (55% of the patients had normal vitamin D levels: > 30 ng/ml). 18% of the women had died after 6 months. Women who died were older (85.3 ± 8 vs 78.9 ± 8, p = 0.006) and they consumed less dairy products (less than 3 dairy products 17% vs at least 3 dairy products 1%; p = 0.038), but these variables were not independently associated with mortality. BMI and calcium/vitamin D supplements were not related with mortality. There were not significant differences in basal levels of 25OHD between patients that died and those who survived (32.2 ± 8 vs 35.1 ± 16; p = NS), neither for mortality between women with normal vitamin D levels and those with low levels (11% of the women with vitamin D > 30 ng/ml versus 7% of the women with lower levels; p = NS).

Discussion: Hip fracture patients in this study consumed few dairy products and 11% of them had BMI under 20. All of them were osteoporotic or osteopenic. 45% of the women had low vitamin D levels (a similar percentage was described for general Spanish population). After 6 months 18 patients had died. These women consumed less dairy products, but there were not differences for BMI, calcium/vitamin D supplements or levels of 25OHD.

Conclusions: In our study, 45% of the fractured women had low vitamin D levels, but we did not found a relation with mortality.

O-17
IS OSTEOPOROSIS A INVISIBLE DISEASE IN INTERNAL MEDICINE DEPARTMENTS?

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Objectives: To study the incidence of osteoporosis in patients admitted to Internal Medicine, determinate the proportion of patients diagnosed and well treated, measure the risk of fracture in Internal Medicine by applying the FRAX calculation tool and study levels of Vitamin D.

Material and method: We performed a prospective and descriptive study, making the review of 195 patients admitted to internal medicine during the month of April 2012 through the use of electronic medical records. Data collection consisted in filiation, clinical risk factors for osteoporosis, comorbidities, radiology, laboratory data and treatment.

Results: The mean age was 80.33 years old (SD 12.47). 51.8% (101) were male. El IMC medio fue 27.6 Kg/m^2 (SD 6,18). Comorbidities were distributed in: alcohol 21 (10.8%), smoking 17 (8,7%), chronic obstructive pulmonary disease 49 (25.1%), ischemic heart disease 41 (21%), heart failure 69 (35.4), cerebrovascular disease 40 (20.5%), dementia 61 (31.3%), dyslipemia 63 (31, 3%), Parkinson 9 (4.6%), neoplasia 41 (21%), venous tromboembolism 17 (8.7%), diabetes mellitus 255 (28.2%), hypertension 121 (62.1%), renal dysfunction 69 (35.4%). Risk factors analyzed were: menopause < 45 years 4 (2.1%), rheumatoid arthritis, 8 (4.1%), hyperthyroidism, 9 (4.6%), hypothyroidism 14 (7.2%), hyperparathyroidism 4 (2.1%), hypogonadism, 6 (3.1%), malnutrition, 24 (12.3%), malabsorption 18 (9.2%), hepatopathy 18 (9.2%), diabetes mellitus type 1 0 (0%), urolithiasis 15 (7.7%), cataract 45 (23.1%). The most important drugs for our work were: steroids 12 (6.2%), beta-blockers 24 (12.3%), anticonvulsants, 6 (3.1%), anticoagulants 39 (20%), thyroid hormones 11 (5.6%), hypnotics/

benzodiazepines 71 (36.4%), opiates 25 (14.7%), statins 58 (29.7%), proton pump inhibitors 88 (45.1%), antidepressants 29 (14.9%). 2 patients (1.9%) had family history of hip fracture, previous diagnosis of osteoporosis 25 (12.8%) and prior treatment 11 patients. The average Spanish FRAX for major fracture and hip fracture was 10.54% (SD 8.7) and 5.39% (SD 5.5) respectively. The average UK FRAX for major fracture and hip fracture was 14.84% (SD 10.8) and 7.63% (SD7, 1) respectively. Vitamin D was determined in 52 patients with a mean value 16 (SD 12.4).

Discussion: The prevalence of osteoporosis is similar to other common diseases in Internal Medicine, however it is less diagnosed. Patients admitted in Internal Medicine departments have many comorbilities and risk factors of osteoporosis. Moreover, usually these patients take many medicines in relation with this disease. Vitamin D 25OH levels are low in over 80% of patients.

Conclusions: Osteoporosis is a prevalent disease in patients of Internal Medicine, underdiagnosed and undertreated. Risk factors for fracture aren't frequently valued.

O-18
VITAMIN D AND BONE MASS LOSS IN PATIENTS WITH CHRONIC CORTICOESTEROID TREATMENT

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Objectives: Osteoporosis is the most common complication of chronic treatment with glucocorticoids (GC), appearing fractures in nearly half of the patients. The vitD is essential in bone homeostasis. Although it is recommended to maintain levels above 30 ng/mL, there is no evidence that this is accompanied by less loss of bone mass (BM). Our objective was to analyze whether maintaining adequate levels of VitD is correlated with a lower percentage of loss of BM.

Material and method: We established the initial MO (HOLOGIC QDR4000) and after one year of treatment, and VitD levels were measured in summer and winter, using the mean as reference value. It was considered suboptimal if VitD level < 30 ng/mL and severe deficiency if < 15 ng/mL.

Results: We analyzed a total of 141 patients (76.6% female), mean age 56 ± 15 years; half prednisone dosage 5.19 ± 3.5 mg/day. The table lists the concomitant treatments received s.

Conclusions: Half of our patients had vit D levels below 30 ng/mL and found no significant association with higher percentage of bone loss. We only observed a higher percentage of bone loss in CF in patients with vitamin D levels below 15 ng/mL next to statistical significance but, generally, no differences were found between lower levels of VitD and the percentage of bone mass loss.

O-20
OSTEOPOROSIS AND ITS TREATMENT. OUR EXPERIENCE

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Objectives: Osteoporosis is a very prevalent disease in developed countries. It is caused by the cumulative effect of bone resorption in excess of bone formation. It affects mainly to postmenopausal women. Drug therapy should be considered in high risk postmenopausal women with T-scores between -1.0 and -2.5, with particular attention in women with a recent fracture, including hip fracture, because they are at high risk for a second fracture. There are several drugs, but to present day there are not studies comparing the efficacy and security between the different therapies. The aim of our study is to make a first approach in comparing the different therapy strategies in osteoporosis treatment in postmenopausal women.

Material and method: We have selected 24 postmenopausal women from an Osteoporosis practice in our hospital (H.G.U. Gregorio Marañón). We classified them in 3 groups: 9 receive therapy with PTH 1-84, 9 with oral bisphosphonates (BF vo) and 5 with intravenous bisphosphonates (BF iv). We followed them during one year. We compared basal characteristics: serum calcium, phosphate, PTH and vitamin D and femoral and vertebral densitometry (DMOF and DMOL, respectively) with the same parameters after one year of each treatment. We also compared previous fractures and its localization with fractures after treatment. We use the PSW 18 statistic program.

Results: The mean age was 71.3 years old. There were no statistical differences between basal characteristics. The mean DMOF was -2.8, and DMOL -2.9. The mean number of fractures was 1.23, and 66.6% were vertebral fractures. We found statistical differences in increasing the DMOL between PTH and BF iv ($p = 0.12$), and between BF o and BF iv ($p = 0.03$). In both cases BF iv was least effective than the comparative treatment. There were no differences between PTH and BF o. Only one patient had a new vertebral fracture during the study. We did not register any adverse effect.

Discussion: Even although our study has a small sample we found differences in favour of BF o and PTH in contrast with BF iv, so probably bigger studies will be able to detect more differences between treatments. In addition, we register no new fractures which are a very important part of the treatment. This is concordant with previous studies.

Conclusions: More studies are needed between therapies in order to find the most cost-effectiveness treatment for our patients, due to the fact that the Osteoporosis is a high prevalent disease nowadays, which causes important morbidity, and that previous studies are only made in comparison with placebo.

O-21
VITAMIN D AND OSTEOPOROSIS IN SYSTEMIC LUPUS ERITEMATOUS (SLE) PATIENTS

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Objectives: SLE patients have experienced an increase in life expectancy. It´s necessary to control long term conditions such as osteoporosis in order to improve quality of life in these patients. Lupus patients have higher prevalence of osteoporosis than general population. Obviously because LES patients have more risk factors, but that it's not only the cause. Vitamin D levels are diminished in this population. The aim of the study is to determine the frequency of osteoporosis and levels of vitamin D in lupus population.

Material and method: We undertake a cross-sectional descriptive study in a group of SLE patients. We collected demographic and clinical data from medical records. Vitamin D serum levels were determined. Bone Mineral Density (BMD) was determined by densitometry DXA (Dual X-ray absorptiometry). Statistical analysis was performed using SPSS 15.0.

Results: We studied 63 patients (55 women, 87.3%) with an average age of 44 years. Demographic and clinical characteristic are shown in Table 1. In our study 88.9% of the patients showed sub-optimal levels of vitamin D (< 30 ng/ml). Moreover, deficient 25-OH-vitamin D (< 15 ng/mL) were found in 47.6% of the patients in our group. Despite the fact, 65.1% of the patients were treated with calcium and vitamin D and 27% with antiresorptive drugs. Vitamin D levels did not correlate significantly with the use of steroids or SLEDAI. Moreover, 14.3% had osteoporosis and 27% osteopenia. There was no significant relationship between osteoporosis/osteopenia and consumption of drugs such as corticosteroids, immunosuppressants or cyclophosphamide.

Discussion: Several cross-sectional studies have evaluated BMD and prevalence of osteoporosis in SLE patients. The majority of them showed that these patients have lower BMD than general population, and a wide range of prevalence of osteoporosis: between 3% and 43%. In our study, 14.3% of patients had osteoporosis. Osteoporosis related to steroid consumption has been widely studied; In this regard, authors find discrepancies in SLE patients. Not always an association between corticosteroid consumption and osteoporosis prevalence has been described. On the other hand, there is growing evidence of hypovitaminosis D in lupus patients. This may be caused by a lower sun exposure, due to photosensitivity or secondary to lupus nephritis. However, it is possible that other factors related to disease may affect vitamin D serum levels and prevalence of osteoporosis in SLE patients.

Conclusions: SLE patients showed a higher prevalence of vitamin D deficiency and osteoporosis than general population. This may be related to the presence of classic risk factors, but also by other factors related to the characteristics of the disease. However, it is necessary to undertake prospective studies with a greater number of patients to clarify this situation.

Table 1 (O-21). Demographic and clinical characteristics

Variable	Median ± SD/n (%)
Sex (Female/Male)	55/8 (87.3/12.7)
Smoking(Yes/No)	18/45 (28.6/71.4)
BMI (Kg/m^2)	25.97 ± 6.63

Vascular risk

RV-1
FATAL INTRACRANIAL HEMORRHAGE (BARC 5) AS A SERIOUS ADVERSE REACTION TO VITAMIN K ANTAGONISTS/VKA IN THREE ELDERLY PATIENTS

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Objectives: Atrial fibrillation with or without valvular disease is the 1st cause of embolism, with an incidence of 6 to 8 per 100 patients per year. In recent years has increased the use of VKA for primary or secondary prevention of thromboembolic events. However the VKA therapy carries a substantial risk of bleeding. We present three cases of fatal intracranial bleeding duo to VKA.

Material and method: Descriptive analysis of three cases of fatal intracranial bleeding duo to VKA reviewing medical record data.

Results: 1st patient: 64 year old male patient, who was treated with VKA since January 2011 for right ischemic stroke with left hemiplegia duo to debut of atrial fibrillation. In April 2011, immediately to an accidental fall he has decreased level of consciousness, aphasia and right hemiplegia. Blood tests showed INR > 8. Cranial scan: hematoma of the left hemisphere with mass effect. Prothrombin complex concentrate was initiated. The patient was died within 12 hours. 2nd patient: 68 year old male patient, who was treated with VKA since April 2010 for left ischemic stroke with aphasia and right hemiplegia duo to debut of atrial fibrillation. In June 2011, he was presented left hemiplegia and gaze aversion to the right side of hours of development as well as tonic epileptic seizure that was self-limiting with intravenous diazepam. Blood test showed INR 6.5 and creatinine 2 mg/dL. Cranial scan: intraparenchymal hematoma of right parietal. Prothrombin complex concentrate was initiated. The patient was died within 48 hours. 3rd patient: 71 year old male patient, with high blood pressure and chronic atrial fibrillation who was treated with VKA of long evolution. He was found unconscious by his wife, that requires orotracheal intubation by emergency medical service. Blood test showed INR 3.4. Cranial scan: intraparenchymal hematoma of basal ganglia and white matter with extensive perilesional edema as well as intraventricular bleeding. Intravenous K Vitamin was initiated. The patient was died within 24 hours.

Discussion: The increased risk of fatal intracranial bleeding (BARC 5/Bleeding Academic Research Consortium) due to VKA (the most often fatal or disabling bleeding) is usually in large studies of less than 0.3% per year. In observational studies and the clinical practice, they accumulate experience and events for many years and have shown that the risk of bleeding is higher in those who have had a prior ischemic stroke, INR labile and the older patients as seen in our three patients. The Guidelines of European Society of Cardiology for the management of Atrial Fibrillation 2010 recommend HAS/BLED score for risk prediction of bleeding. The risk is highest with a SCORE of 3 or more such as in our three cases.

Conclusions: The HAS-BLED is a user-friendly score to assess risk of major bleeding duo to VKA and can help us (together CHA2DS2-VASc score) to reach the sweet spot.

RV-2
FAMILIAL HYPOALPHALIPOPROTEINEMIA AND CARDIOVASCULAR DISEASE

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Objectives: To analyse 2 cases of severe familial hypoalphalipoproteinemia with particular emphasis on genetic test and their relationship with cardiovascular diseases.

Material and method: Two female patients studied in our centre with extraordinary low HDL-cholesterol levels. Family (pedigree) and medical history were recorded. Lipid profile was measured using enzymatic methods. Genes coding for LCAT, ABCA1, GALNT2 and APOA1 were analysed using automated sequencing. Carotid ultrasound and coronary CT-scan were performed in both patients.

Results: Clinical characteristics of FHA patients are shown in table 1.Genetic testing confirmed LCAT deficiency (V70E: GTG to GAG on position 209 in exon 2) in case 1 and Tangier disease in case 2 (2 mutations were detected: W424X, TGG to TGA at position1272 in exon 11(heterozygous), and 160+5G to A in intron 5 (heterozygous) in ABC1 Vascular studies showed no atherosclerotic disease in both cases.

Discussion: Low HDL-c is a classic risk factor for coronary artery disease (CAD). However, these cases with very low HDL-c levels since birth, were asymptomatic and also, no evidence of atherosclerosis disease was observed with imaging techniques.

Table (RV-2)

	Case 1. LCAT Defiency	Case 2. Tangier disease
History of cardiovascular disease	No	No
Case 1st degree relatives	No	No
Smoking	No	Yes
HDL-C (mg/dl)	13 mg/dl	2 mg/dl
LDL-C (mg/dl)	28	58
Triglycerides (mg/dl)	113	64
Coronary CT scan	No atherosclerosis	No atherosclerosis
Carotid Ultrasound	No plaques, IMT 0.7	No plaques, IMT 0.6

Besides, they do not have family history of CAD. Genetic testing confirmed the diagnosis of 2 rare disorders. Analysis of relatives is important to prevent development of CAD.

Conclusions: 1. LCAT deficiency and Tangier disease are rare disorders. 2. Although low HDL-c levels is a risk factor for CAD, some genetic disorders do not show this increased risk.3. Treatment of these cases remain controversial.

RV-3
HEMATOCRIT AND BLOOD BIOMARKER LEVELS OF CARDIOVASCULAR MORTALITY

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Objectives: To study the hematocrit of patients with arterial peripheral disease (APD) and its association to blood biomarker levels of cardiovascular disease or mortality, easily measurable in the daily clinic.

Material and method: 40 patients with APD were studied to their revenue in the Service of Vascular Surgery. After signing the informed assent, there were requested for analytical including hemogram, biochemistry in blood and urine and PCR's levels, beta2-microglobulin and NT-proBNP.). NT-ProBNP was measured by a radial partition immunoassay (RPIA) in solid phase (Acute Care™ for Stratus® CS de Siemens). Beta-2-microglobulin was measured by immunonephelometry (BNII of Siemens). The statistical studies were realized by the SPSS 15.0.

Results: There were studied 40 patients (33 men and 7 women) (68.03 + 11.10 years) whose hematocrit was 37.94 + 5.90%, their red distribution width (RDW) (15.08 + 2.18%) and with PCR's levels: 7.56 + 9.17 mg/dl, beta2-microglobulin: 4.73 + 4.90 pg/ml and NT-proBNP of 1,564.71 + 2,008.60 mg/dl. Urine creatinine clearance was 64.55 + 26.45 ml/min and the levels of serum albumin 3.58 + 0.44 g/dl. The hematocrit was inversely related to PCR ($r = -0.59$; $p = 0.001$), beta2-microglobulin ($r = -0.66$; $p = 0.001$) and NT-proBNP's levels ($r = -0.54$; $p = 0.001$) and positively correlated with serum albumin ($r = 0.55$; $r = 0.001$).

Discussion: Anemia is an important cause of morbidity, principally through increased cardiovascular disease. The development of moderate to severe anemia at any time during the hospital stay was independently associated with increased mortality. The results of this study show that the hematocrit of patients with APD diminishes as their blood biomarker levels of cardiovascular disease or mortality (PCR, beta-2 microblobulin and NT-proBNP) increase and it might explain, at least partly, that the increased mortality related to decreased hematocrit levels of chronic patients should be associated with increase for the above mentioned biomarkers.

Conclusions: The hematocrit of patients with chronic disease as APD was inversely related to PCR, beta2-microglobulin and NT-proBNP's levels and positively correlated with serum albumin. This could explain the association between anemia and increased mortality through an increased rate of cardiovascular disease.

RV-4
COLITIS, DIFFERENCES BETWEEN CLINICAL AND PATHOLOGICAL DIAGNOSES IN A SAMPLE OF 172 PATIENTS ADMITTED TO A LOCAL SPANISH HOSPITAL

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Objectives: Primary: to describe the causes and prevalence of ischemic colitis (IC) and clinical characteristics of these patients. Inclusion criteria: Patients with acute bloody diarrhea without etiological cause (non-infectious disease, negative bacteriologic studies and colonoscopy with biopsy to complete the study. Exclusion criteria minors without colonoscopy. To describe the 3 major groups in the sample obtained: IC, inflammatory bowel disease (IBD) including Crohn's disease and ulcerative colitis and the rest (including nonspecific colitis and idiopathic in nature and neoplasic disease).

Material and method: Retrospective longitudinal observational study of all pathological anatomy in patients with colitis between 01/06/2010 and 01/03/2012 by measuring the variables associated with cardiovascular risk factors (hypertension, hypercholesterolemia, diabetes mellitus, triglycerides, total cholesterol, HDL, LDLc, smoking, etc.) and demographic variables such as sex and age. Statistical analysis using SPSS v.20.

Results: N = 172. The average age of the sample was 57.68 years. IC patients were older than other groups (73.64), statistically significant differences ($p < 0.001$) between the ages of the 3 groups evaluated (IC, IBD and others). IBD patients were younger (46.94). 25 patients (14.5%) of the sample had IC, 62 (36%) IBD, 2 (1.2%) neoplasms, 83 (48.3%) other types of colitis. When comparing the mean cholesterol levels, triglycerides, HDL and LDL cholesterol among patients with IC compared to other colitis, there were no statistically significant differences. There were no differences in doing so with IBD. Hypertension (HT) ($p < 0.001$), diabetes (DM) ($p = 0.004$) and dyslipidemia (DLP) were associated most to have IC. Taking antiplatelet agents has been correlated ($p < 0.001$), statins ($p < 0.001$), diabetes ($p = 0.001$) and pressure ($p < 0.001$) with IC. Also taking anticoagulants ($p = 0.013$) and ischemic stroke ($p = 0.044$).

Discussion: Ischemic colitis (IC) is the most frequent bowel ischemia (70%) and arises when the colon is private transiently vascular flow. Its true prevalence is clearly underestimated, because the milder forms may go unnoticed. The estimated incidence of IC in the general population ranges between 4.5 and 44 cases per million inhabitants per year and is higher among people over 65 years. It has been linked with a number of factors predisposing or precipitating as arteriosclerosis, myocardial infarction, hypotension, chronic heart failure, cardiac arrhythmias. In our sample has been correlated in most cases. IC patients were taking more drugs against vascular risk than the rest of the groups. 50% of patients in the sample had IBD or IC while 48% had some type of colitis of unknown etiology, this begs the possibility of a prospective study to objectify what type pathology developed these patients with a diagnosis pathology uncertain.

Conclusions: IC patients are older and more associated cardiovascular-comorbidities than other groups (as in the existing literature), they also take more drugs than other groups. Patients with IBD are younger and do not associate greater risk for having associated cardiovascular risk factors. In our sample there is a lot of patients with a pathologic diagnosis uncertain. Is needed to track prospective latter to objectify the correlation between clinical and pathological diagnoses. We emphasize that many cases of ischemic colitis may go unnoticed if the doctor is not initially suspected this possibility, and can erroneously be classified as infectious colitis or diverticulitis.

RV-6
LOW FREQUENCY OF A DECREASED ANKLE BRACHIAL INDEX AND ASSOCIATED CONDITIONS IN THE PRACTICE OF INTERNAL MEDICINE IN A TURKISH POPULATION SAMPLE

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Objectives: Peripheral arterial disease (PAD) is a less known condition in the practice of internal medicine, due mostly to lack of specific symptoms and low rates of physician awareness. However, cardiovascular disease (CVD) incidence is not significantly different between patients with symptomatic or asymptomatic disease. Ankle brachial index (ABI) measurement is an easy and cost-effective tool for the diagnosis of PAD. In the present study, frequency of low ABI and associated factors were investigated in the setting of internal medicine practice.

Material and method: Patients above 70 years old and patients between 50 and 69 years with CVD or at least one atherothrombosis risk factor were included in the study. ABI was determined with handheld Doppler. Measurements were determined for both lower extremities. Lower of the right or left ABIs was taken as the final value. Low ABI was defined as ≤ 0.9.

Results: A total of 303 subjects between 50 and 83 years of age were enrolled (female/male: 186/117). Mean ABI was 1.14 ± 0.15. A low ABI was detected in 15 cases (4.95%). Prevalence was 7% in females and 1.7% in males (p = 0.039). Low ABI value was not associated with any of the demographic parameters, presence of major risk factors or basic laboratory values. A high ABI was found by 5.6%.

Discussion: In the present study, frequency of PAD as determined by ABI was found lower than those reported previously in most European countries. Nonetheless, our results showed that PAD affects at least 1 in 20 outpatients in the practice of internal medicine.

Conclusions: In the present study, frequency of PAD as determined by ABI was found lower than those reported previously in most European countries. Nonetheless, our results showed that PAD affects at least 1 in 20 outpatients in the practice of internal medicine.

RV-8
INTIMA-MEDIA THICKNESS AS A MARKER OF SUBCLINICAL ATHEROSCLEROSIS IN WOMEN WITH HISTORY OF VASCULAR COMPLICATIONS OF PREGNANCY

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Objectives: Vascular complications of pregnancy, including preeclampsia, eclampsia and hemolysis, elevated liver enzymes and low platelet count (HELLP) syndrome, determine a prothrombotic and proinflammatory state. In addition, the presence of endothelial dysfunction, which constitutes the initial event for the development of atherosclerosis, has been described. These findings contribute to an increased risk in the development of cardiovascular diseases at the time of the event and later in life. The aim of this study was to determinate whether the presence of vascular complications during pregnancy (pre-eclampsia, eclampsia and HELLP syndrome) can be considered as an independent risk factor for the development of subclinical atherosclerosis through the measurement of the intima-media thickness (IMT).

Material and method: We carried out a cross-sectional case-control study, comparing a group of 15 primiparous women with previous history of vascular complications of pregnancy with a control group of 15 nulliparous women, matched by age, body mass index and smoking habit. A carotid IMT measurement by Doppler ultrasound was performed in order to evaluate the presence of subclinical atherosclerosis as well as other cardiovascular biochemical markers.

Results: Patients with previous history of vascular complication of pregnancy had significantly higher levels of erythrocyte sedimentation rate (ESR) and triglycerides (p = 0.01 and 0.04 respectively), and lower levels of high-density lipoprotein (HDL) (p = 0.002) compared with the control group. IMT was significantly increased in patients with vascular complications of pregnancy (p = 0.001). In the univariate regression analysis, the presence of previous vascular complications of pregnancy (R: 0.578; R^2: 0.335; p = 0.001), high ESR (R: 0.376; R2: 0.141; p = 0.04) and low plasmatic HDL concentration (R: 0.518; R^2: 0.269; p = 0.003) proved to be independent risk factors for the presence of a larger carotid IMT. After multivariate analysis, the antecedent of vascular complication of pregnancy remained significant (R: 0.629; R^2: 0.395; p = 0.02).

Discussion: Our study shows an increased IMT in the group of women with vascular complications of pregnancy, which might indicate an accelerated atherosclerosis in these patients. Therefore, the presence of a vascular complication of pregnancy could be considered as independent risk factor for the development of atherosclerosis and cardiovascular diseases.

Conclusions: Our findings suggest that women with vascular complication of pregnancy may benefit from preventive measures of early cardiovascular diseases. These might include certain changes in lifestyle, such as low-lipid diet and exercise, as well as more exhaustive control of arterial blood pressure, plasmatic

lipids and glucose, in order to avoid future cardiovascular events.

RV-9
RISK FACTORS OF LACTIC ACIDOSIS IN PATIENTS WITH TYPE 2 DIABETES TREATED WITH METFORMIN

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Objectives: To study the prevalence of factors favouring lactic acidosis (LA) in a series of patients with type 2 diabetes (DM2) in treatment with metformin admitted to an Internal Medicine (IM) service.

Material and method: Descriptive transversal study. Patients previously diagnosed with DM2 following treatment with metformin which were admitted in our IM service between February 15th and June 15th 2011 were included. Risk factors of LA were: recent administration of iodinated contrasts, chronic renal failure, (creatinine > 1.4 in women and > 1.5 mg/dL in men), hepatopathy, alcoholism, heart failure, hemodynamic instability; age groups were analyzed. Cases presenting metabolic acidosis, anion gap > 12 mmol/L and lactate > 22 mg/dL in absence of other causes of lactate increase were considered as LA.

Results: 71 patients were included, mean age of 79.5 ± 9, 59.2% were women, median duration of DM2 10 years, mean lasting treatment with metformin 5.8 ± 5.8 years (median of 4). 18 patients were on associated treatment with insulin, with other oral antidiabetics in 50. Mean HbA1c: 7.6 ± 1.5%. Prevalence of LA risk factors is exposed in Table 1. It is also indicated the percentage of elderly patients, as advanced age is a metformin use limitation criterion for some authors. During the period of study, 5 cases of LA were reported, all of them in the context of prerenal acute renal failure. None of them had LA risk factors, although their ages were 81, 83, 86, 90 and 92. Evolution was favorable in all cases.

Discussion: Metformin-induced LA is associated with risk factors that, if present, must make avoid or use with caution this drug. In the present study these risk factors are less frequent than in previous ones, which may indicate a good selection of patients for treatment with metformin. However, cases of metformin-induced LA only happened in elderly patients without other risk factors. Estimated incidence of metformin-induced LA is 0-9 cases/100,000 patients/year. In our study, this incidence is much higher (associated with advanced age and acute renal failure).

Conclusions: Lactic acidosis risk factors are moderately frequent in our patients with DM2 following metformin treatment. LA incidence in our study seems to be much higher than that described in literature, and it is associated to advanced age. It is suggested to maximize precaution in patients > 80 years old treated with metformin.

Table 1 (RV-9). Prevalence of risk factors of lactic acidosis

Heart failure	21%
Renal Failure	9.9%
Recent use of iodinated contrast	4.2%
Liver disease	2.8%
None	49.3%
Aged 80 or over	53.1%
Aged 85 or over	33.8%

RV-11
PRIMARY ALDOSTERONISM LIKE CAUSE OF HYPERTENSION: DESCRIPTIVE STUDY

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Objectives: The primary aldosteronism (PA) is the most common cause of hypertension (HTN) of known etiology. We report a descriptive study of PA conducted in an office of Hypertension.

Material and method: Two thousand hypertensive patients have been studied by control difficulties or suspected secondary hypertension with a general analytical protocol, electrocardiogram and abdominal echo. It was considered inappropriate the kaliuria > 30 mEq/day, with kaliemia < 4 mEq/l. The unclarified hypokalemia with inappropriate kaliuria or increased adrenal (incidentaloma) determined the performance of aldosteronemia (A) and plasma renin activity (PRA). When the A was high and the ratio A/PRA > 30 is held a suppression test (captopril or saline) to confirm the diagnosis of PA and after it was tested to determine etiology and treatment. The A and PRA were measured in supine position with a diet of 200 mEq of NaCl. Data collected and processed in SPSS 16.

Results: It demonstrated PA in 62 (3.1%) hypertensive patients. The mean age was 55.7 ± 11.6 years (range 29-85). Thirty two (51.5%) patients were women; 16 (25.8%) patients were in geriatric age. Mean baseline BP was 187.3 ± 19.9/105.2 ± 11.2 mmHg. The blood pressure after treatment was 136.5 ± 8/82.5 passing ± 4.6. In all cases the kaliemia was below 4 mEq/l (mean 3.36 mEq/l, range from 4 to 2; aldosteronemia high (mean: 38.8 ± 30.2 µg/dl, range from 198 to 20), ratio A/RPA (mean: 137 ± 113, range from 585 to 32; RPA less than 0.2 ng/ml/h in 48, and the rest less than 1 ng/ml/h, with positive captopril test. Kaliuria inappropriate (mean: 89 ± 23.3 mEq/d, range from 158 to 46). All cases underwent abdominal CT scan revealed an adrenal nodule ofmore than one cm in diameter in 33 (53%), 3 with bilateral. Of these, in 13 cases was detected by echo the nodule (sensitivity 39%). Among the kaliemia and SBP there was a correlation of α = -0.34 (p = 0.01). In 3 cases, adrenal vein catheterization performed, showing an increase of aldosterone in the adrenal nodule. The 31 PA with normal-sized adrenal were considered adrenal. Adrenalectomy (laparoscopically) was performed in 19 cases. Hypertension was controlled in 44 cases (71%) combining surgery, aldosterone antagonists and other antihypertensives.

Discussion: Although there is a tendency to attribute the PA as a major cause of hypertension doubts arise if the spectrum covered by this concept or it should be limited to well-defined cases, excluding borderline cases for inclusion in refractory essential hypertension with low renin. This latter view is that modulates this work, which is tempered by the low prevalence and the high percentage of cases with Conn's syndrome.

Conclusions: 1. The kaliemia less than 4 mEq/l, associated with inappropriate kaliuria has been the guiding in the search data PA. 2. It is constant in the PA an high aldosteronemia, low basal PRA and a ratio A/PRA > 30. 3. These tests associated with abdominal CT is usually sufficient for diagnosis of PA, except in cases of hereditary PA or DOCA producers. 4. The abdominal ultrasonic study offers low sensitivity for adenoma in the PA (39%). 5. The laparoscopic adrenalectomy is the surgery of choice in Conn's syndrome. 6. Specific treatment PA, associated with other antihypertensive achieves BP control in 71% of cases.

RV-12
PRIMARY HYPOCITRATURIA, URINARY STONES AND HYPERTENSION

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Objectives: Hypocitraturia is a common finding in acidotic processes. As a primary entity, usually associated a genetic profile is extremely rare. It manifests as bilateral urolithiasis, a circumstance which, moreover, is often associated with high blood pressure. We report the detection of primary hypocitraturia in an office hypertension.

Material and method: We review the prevalence and clinical manifestations of primary hypocitraturia in an office Hypertension. We were established as guiding data for detection of hypocitraturia: the debut of the stone within 30 years, the bilateral urolithiasis, absence of hyperparathyroidism, normal urinary sediment and/or negative urine culture and lack of response to conventional therapy. All patients were hypertensive and they received 12.5 mg hydrochlorothiazide at the time of 24 hours urine collection.

Results: We studied 1,600 hypertensive patients, of whom 198 (12.4%) had urinary stones, and 19 cases showed primary hypocitraturia. The following characteristics were observed at the time of diagnosis: Mean age was 40.47 ± 14.8 years (range 14-60). Twelve (63%) were women. Four cases were part of the same family (autosomal dominant). All patients with hypocitraturia had renal colic and bilateral urolithiasis. The citraturia average was 52.1 ± 33.2 mg/day, with a range of 5-95 mg/day (normal range 140 to 940 mg/day). There were no differences in the elimination of urate (566 ± 178.1 mg/day), calciuria (250.8 ± 97.7 mg/day) and natriuria (168.8 ± 74.7 mEq/day) in relation with the urolithiasis patients of a 900 hypertensive patients population. Eleven cases had hypercalciuria (with hydrochlorothiazide 12.5 mg), in 6 patients there were osteoporosis, 7 patients required lithotripsy and dental alterations were observed in 16 patients.

Discussion: Hypocitraturia be suspected in patients with hypercalciuric urolithiasis is not controlled with thiazides, if it has been ruled out primary hyperparathyroidism. Before considering primary disorder should be ruled out multiple secondary causes (acidotic) and urinary infections. The proper treatment improves the clinical profile of patients with primary hypocitraturia.

Conclusions: 1. The primary hypocitraturia is a rare disorder to rule in bilateral urolithiasis in young patients. 2. For the diagnosis it's necessary to exclude other causes of hypocitraturia secondary and bilateral stones. 3. The coexistence of hypertension is a common finding and is part of the binomial hypertension-urolithiasis. 4. Treatment focuses on combining citrate and thiazides, which improves urinary symptoms.

RV-13
EFFECTS OF AMLODIPIN AND VALSARTAN ON LIPID PROFILE IN PATIENTS WITH HYPERTENSION

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Objectives: The aim of the present study was to investigate the effects of valsartan as an angiotensin II receptor antagonist and amlodipine as a calcium channel blocker on the lipid profile in patients with essential hypertension.

Material and method: Patients applying to the internal medicine and cardiology outpatient clinics who had a newly diagnosed essential hypertension were recruited in the study. Patients were randomized to one of the following intervention protocols: An (A) angiotensine II receptor blocker (valsartan, 80-320 mg/day) or (B) calcium channel blocker (amlodipine, 5-10 mg/day), for 12 weeks immediately after baseline measurements. Serum lipid profile levels of the patient groups were measured before treatment and on the 12nd week.

Results: This study was performed on 50 patients with newly diagnosed essential hypertension (group A; n = 28 and group B; n = 22). In the amlodipine group, there was a significant decrease in levels of LDL-C (median LDL-C/before-after: 136.4/125; $p < 0.05$) in comparison with valsartan. No significant changes were observed in the levels of TG, T-C, HDL-C after both drug arms.

Discussion: In this study, we observed a beneficial effect of amlodipine on lipid profile with a significant reduction of LDL-C in comparison to valsartan.

Conclusions: As a result, in the treatment of hypertension, prior knowledge of the levels of plasma cholesterol could be important in antihypertensive drug choice.

RV-14
THE COMPARATIVE EFFECTS OF AMLODIPIN AND VALSARTAN ON VITAMIN D LEVELS IN PATIENTS WITH HYPERTENSION

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Objectives: The previous epidemiological and clinical studies in the last decades show a connection between vitamin D levels and blood pressure (BP), but the mechanism(s) underlying this condition are uncertain. There are various studies showing positive effects of antihypertensive treatment, particularly ACE inhibitors, on bone metabolism. However, data about that issue were limited. In this study, we analyzed the effects of amlodipine and valsartan on 25-hydoxyvitamin D(25(OH)Vit D) levels in patients with essential hypertension.

Material and method: Patients applying to the internal medicine and cardiology outpatient clinics who had a newly diagnosed essential hypertension were recruited in the study. Patients with a history of secondary hypertension, atherosclerotic heart disease, diabetes, chronic kidney disease, thyroid dysfunction, chronic liver disease, osteoporosis and other chronic diseases were excluded. Patients were randomized to one of the following intervention protocols: An (A) angiotensine II receptor blocker (valsartan, 80-320 mg/day) or (B) calcium channel blocker (amlodipine, 5-10 mg/day), for 12 weeks immediately after baseline measurements. Serum 25(OH)Vit D, calcium(Ca), phosphorus(P) and parathormone (PTH) levels of the patient groups were measured before treatment and on the 12nd week.

Results: This study was performed on 50 patients with newly diagnosed essential hypertension (group A; n = 28 and group B; n = 22). No statistically significant difference among the groups in terms of age, sex and body mass index (BMI) has been determined (group A/B; mean age: 52.9/50.1, female: 22/13, male: 6/9, BMI: 30.3/30.4; $p > 0.05$). Again, except for 25(OH) Vit D levels, there was no significant difference in laboratory parameters indicating bone metabolism between the groups (median PTH1: 47.4/54.5, median PTH2: 45.1/51.5, median Ca1: 9.8/9.7, median Ca2: 9.7/9.9, median P1: 3.5/3.5, median P2: 3.7/3.1; $p > 0.05$). 25(OH) Vit D levels in the amlodipine group were significantly higher after therapy (median 25(OH) Vit D1: 14.3, median 25 (OH)Vit D2: 21.4; p:0.022). However, on the valsartan group, levels of vitamin D

increased after treatment, but this increase was not statistically significant (median 25(OH)Vit D1: 16.8,median 25(OH)Vit D2:17.3; p: 0.156).

Discussion: In the treatment of hypertension, prior knowledge of the levels of 25(OH)Vit D could be important in antihypertensive drug choice and we think that this observation should be supported by further studies.

Conclusions: In this study, compared to valsartan, amlodipine had a positive effect on vitamin D levels.

RV-15
PROGRESSIVE REMISSION OF CHRONIC RENAL FAILURE AFTER TREATMENT OF PRIMARY HYPERALDOSTERONISM

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Objectives: The different evolution of chronic renal failure in essential hypertension against primary aldosteronism (PA) has been published in the last decade. In the course of the last 10 years we have followed two patients with PA which debuted with chronic renal failure. It was demonstrated in both bilateral adrenal hyperplasia by CT. With adequate control of blood pressure and correction of potassium the disappearance of renal failure has been observed in later years. It is the reason of this presentation.

Material and method: During 10 years 62 PA have been diagnosed in our clinic. Two of them required hospitalization for severe general deterioration and present with renal failure. In the evolution, with adequate control of blood pressure and correction of hypokalemia, we observed the normalization of the renal function.

Results: First Case: A 59 years-old man was admitted to the emergency in 2005 by general weakness. It detected elevated blood pressure and severe hypokalemia. He was admitted with the diagnosis of paralysis secondary to hypokalemia. The hypertension treatment consisted of verapamil, doxazosin and valsartan. A physical examination revealed: blood pressure: 152/86 mmHg, with flaccid tetraparesis, grade 1/5. The kaliemia was 1.44 mEq/l with metabolic alkalosis. Electrocardiogram: atrial fibrillation at 60 bpm. Echocardiography: Mildaortic regurgitation with concentric left ventricular hypertrophy. The patient was treated with electrolyte replacement and 200 mg of spironolactone per day, and was released pending hormonal studies, which showed (with valsartan): ARp < 0.2 ng ml/h (normal 1.3-4). Serum aldosterone 360 pcg/ml (normal 40-160). Captopril test was considered positive by the valsartan treatment. Computed tomography and the adrenal scintigraphy showed adrenal bilateral hyperplasia. Subsequently with the spironolactone treatment the creatinine levels gradually have been declining from 2.86 mg/dl to 1.20 mg/dl (estimated creatinine clearance of 71 ml/min/1.73 m^2). Second case: A 47 years-old man was admitted to the emergency in 2002 by constitutional symptoms. High pressure values were observed (196/124 mmHg), left ventricular hypertrophy and hypertensive retinopathy grade 4. He followed not antihypertensive treatment. The initial creatinine was 2.43 mg/dl. The patient was treated with 4 antihypertensive drugs, maintaining the blood pressure in stage 1. During the next 2 years the kaliemia ranged between 3.4 and 3.8 mEq/l. The plasma renin activity was 0.3 ng/ml/h and serum aldosterone 493 pcg/ml, considered to be the test positive for captopril (in treatment with enalapril). A CT abdomen showed no adrenal adenoma. Spironolactone, 100 mg and modifications of other antihypertensive drugs were introduced. Subsequently treatment with mineralcorticoids blocking of was maintained and the creatinine levels gradually have gone down to 1.20 mg/dl (estimated creatinine clearance of 76 ml/min/1.73 m^2).

Discussion: In few situations the remission of established chronic renal failure has been observed in the context of hypertension. It has recently been demonstrated in PA, an entity of high frequency in patients with hypertension. This observation and the high prevalence of PA justify rule out the PA in the hypertensive patients.

Conclusions: 1. The diagnosis of PA is important because the hypertension, the metabolic disorders and the kidney chronic disease are potentially curable. 2. The Hypertension in the PA can be severe and of difficult control with the traditional medication.

RV-16
C3 CONVERTASE AND THE FRAMINGHAM SCORE CALIBRATED FOR SPANISH POPULATION: A WELL-MATCHED MARRIAGE

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Objectives: The aim of the study was to investigate the correlation between serum C3 convertase levels and REGICOR model.

Material and method: Population: We evaluated 332 subjects from the endothelial pathology unit, who had serum C3 determinations in their first visit. Patients with coronary heart disease (CHD), type 1, LADA and MODY diabetes were excluded. C3 convertase was measured by nephelometry (mg/dl). Outliers were excluded (mean ± 3-fold SD). Biochemical parameters of glucose and cholesterol were measured by an HITACHI autoanalyzer and blood pressure by an OMRON 705 CP sphygmomanometer. Cardiovascular risk assessed according to the REGICOR model, (Framingham function calibrated for Spanish population). Statistical analysis: Continuous variables described as mean (SD: standard deviation). Pearson's correlation coefficient. Comparison between groups: student's t-test. Normality assessed by Kolmogorov–Smirnov test. Levene test for equality of variances. p = 0.05.

Results: Population: aged 55.5 (10.7) range 35 to 74 years, 59.0% males, 55.1% hypertensives, 22.9% smokers, 27.7% with Type 2 diabetes mellitus. Females were slightly older than males (57.1 (10.7) vs 54.3 (10.6)). C3 serum levels ranged from 65 to 216 mg/dl. Mean 133.1 (SD: 26.4). No significant differences were found in C3 levels between males and females. C3 levels were not correlated to age. 10-years coronary risk in overall population: 4.6% (3.6), range: 0.1 to 23.1. Males had higher risk than females (5.4(4.0) vs 3.5 (2.6); p < 0.001). C3 was positively correlated to coronary risk (r = 0.167; p = 0.003) in our whole population. We divided the population into groups by sex and age. Just in males between 35 and 44 y.o. C3 was significantly correlated to coronary risk (r = 0.316; p = 0.041). In females, C3 was linearly related to coronary risk in every age group below 65 y.o. From 35 to 44 y.o: r = 0453, borderline significance. 45-54 y.o: r = 0573, p < 0.001. 55-64 y.o.: r = 0.437, p = 0.004.

Discussion: The C3 complement factor is an acute phase reactant, produced by the liver, a cytokine secreted by activated macrophages at inflammation sites and adipocytes. It has been associated with atherosclerosis and cardiovascular risk (Muscari et al. 2000; Onat et al. 2005). The evidence indicates the crucial role of inflammatory processes in all stages of atheroma formation, including infiltration of inflammatory cells in the intima and secretion of cytokines. Therefore systemic inflammatory proteins have been evaluated as predictive biomarkers of cardiovascular disease. The C3 was the unique inflammatory marker independent of body mass index, insulin and other inflammatory markers (Engstrom et al. 2005). However, the association of C3 with the full development of

metabolic syndrome and cardiovascular risk has not been studied independently until today.

Conclusions: High levels of C3 convertase are correlated with increased risk of primary cardiovascular event in the overall population of our study. High levels of C3 come forward as good predictors of cardiovascular risk in young patients and very significantly in premenopausal/perimenopausal women. Our study is consolidating a relationship between primary cardiovascular risk in women with C3 serum levels.

RV-17
RESISTANT HYPERTENSION: HOW MANY AND WHAT HYPOTENSIVE DRUGS ARE TAKEN BY PATIENTS WITH RESISTANT HYPERTENSION IN THE VASCULAR RISK UNIT OF SALAMANCA IN A PERIOD OF 7 YEARS

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Objectives: To establish the clinical and biological characteristics, the age distribution, the kind of drugs and the most common combinations of hypotensive drugs of the patients admitted in the Hypertension and Vascular Risk (HVR) Unit of the Clinical University Hospital of Salamanca with a diagnosis of resistant hypertension during a period of 7 years, between January 2005 and December 2011.

Material and method: All patients in the HVR unit database with a diagnosis of resistant hypertension were selected. We reviewed the clinical records that met these requirements: anamnesis and physical exploration, anthropometric indexes, ABMP for 24 and/or 48 hours, treatment and hypotensive drugs, antiaggregant drugs and statins. The circadian patterns of ABMP (ambulatory blood pressure monitoring) were defined as: decrease > 20%: extreme dipper; decrease between 10 and 20%: dipper; decrease < 10%: non-dipper; arterial pressure higher than day arterial pressure: riser. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: Out of the 194 patients selected in the first stage, 102 cases were ruled out because they did not meet the requirements. In the other 92 cases, the average age was 64.5 years, with a median of 63 and a mode of 56. The mean for men was 62 years and for women it was 65 years, with no significant differences in both groups. 51.6% of the patients were women and 48.4% were men. With regard to the hypotensive drugs, 100% of the patients took diuretics, 49.5% took thiazides (HTZ 12.5 in 25.8% of the cases and HTZ 25 in 23.7% of the cases) and 24.8% took torasemide. 82.6% of the patients received angiotensin II receptor antagonists (olmesartan 26.6%; valsartan 25.3%; irbesartan 15.2%). 65.6% of the patients received calcium channel blockers (40.3% amlodipine; 24.2% lercanidipine; 11.3% diltiazem). 45.2% of the patients received beta blockers (34.9% carvedilol; 23% bisoprolol 18.6%). ACE inhibitors were prescribed in 34% of the cases (enalapril in 40.9%, enalapril 20 in 34.4% of the cases); ramipril in 28.2% of the cases (ramipril 10 in 12.5% of the cases) and perindopril in 15.7% of the cases. Peripheral vasodilators were used in 24% of the cases with doxazosin and in 23.3% of the cases with nevibolol. Renin inhibitors were used in 18% of the patients (13% of the patients received aliskiren 150 mg/day). Statins were used in 64.8% of the patients, with atorvastatin in 51.6% of the cases, simvastatin in 13.3% of the cases and pravastatin in 10% of the cases. Antiaggregants were administered in 53.3% of the cases, with acetylsalicylic acid 100 mg in 44.4% of the cases, clopidogrel in 2.2% of the cases and double anti-aggregation in 5.6% of the cases.

Conclusions: In our series, resistant hypertension is more common in women with an average age of 66 years. The most commonly used drug types were angiotensin II receptor antagonists, followed by calcium antagonists, beta blockers, ACE inhibitors and vasodilators. With regard to the drugs themselves, olmesartan was the most commonly prescribed angiotensin II receptor antagonist, both in diabetic and non-diabetic patients, followed by the calcium antagonist amlodipine. In the third place were the beta blockers (bisoprol) and in fourth place the ACE inhibitors (enalapril). Doxazosin ranks fifth. With regard to diuretics, all the patients took them, as described in the conditions for resistant hypertension. Thiazides and indapamide were the ones most commonly used, always combined with angiotensin II receptor antagonists and/or calcium antagonists. Statins and antiaggregants were not prescribed in enough cases (less than 80%), as might be expected in this group with high comorbidity rates.

RV-18
PREVALENCE OF MTHFR GENES MUTATIONS IN RESISTANT HYPERHOMOCYSTEINEMIA

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Objectives: To evaluate the prevalence of MTHFR genes mutations in resistant hyperhomocysteinemia.

Material and method: N = 33 patients with moderate-high CV risk and clinical & biochemical criteria for resistant hyperhomocysteinemia (RH) consented to genetic screening by the use of molecular genetic testing; 24 males (72.7%): 53.8 ± 17.2 yrs; BMI: 29.1 ± 4.4 Kg/m^2; 9 females (27.3%): 62.7 ± 20.3 yrs. BMI: 28.5 ± 6.5 Kg/m^2. Smokers 18.2%; Hyperglycemia 48.5%. Hypertension 66.7%. Clinical atherosclerosis (including coronary heart disease) in 33.3%.; venous thrombosis history in 9.1%. Subjects with type 1 diabetes, LADA, folic acid and/or vitamin B12 deficiency, and chronic renal failure were excluded. RH defined by: Hcy > 16 uM/L (normal values in local laboratory: < 12) after 6 months of treatment with 5 mg of folic acid and 150 mg of vitamin B6 or a dose of 1000 gammas of injected vit B12 every 2 or 3 months. Plasma Homocysteine: IMX Abbott. Statistical analysis: Continuous variables described as mean ± SD.

Results: N = 20 (60.6%) were homozygous; n = 10 (30.3%) heterozygous for MTHFR C667T mutation. Only 3 subjects (9.1%) were non carriers. 29/33 (87.9%) showed at least one Cardiovascular Risk Factor (CVRF) associated. In our study, homozygous prevalence was higher than expected in the general population (60.6% vs 15-25%), whereas heterozygous prevalence was slightly lower than estimated in Caucasian population (30.3% vs 45%). Clinical atherosclerosis (including coronary heart disease) is more prevalent than venous thrombosis history (33.3% vs 9.1%).

Discussion: The role of the homocysteine (Hcy) as a cardiovascular risk factor has been questioned for a long time but according to recent data from MESA study and NHANES study, patients with elevated Hcy levels show an increased risk not only for blood clots in the veins, but also for heart attack and stroke. MTHFR C667T is an autosomal recessive mutation within the MTHFR gene that results in the production of a thermolabile enzyme with decreased activity for methylating homocysteine. This mutation involves a single nucleotide substitution of thymidine for cytosine at nucleotide position 667 of the MTHFR gene. Carriers of this mutation are associated with elevated levels of homocysteine in plasma, which, in turn, increases the risk of arterial disease and venous thrombosis. The prevalence of the MTHFR C667T mutation in the general population is estimated to be 15-25% of homozygosity. Heterozygosity has a reported incidence of approximately 45% in

the Caucasian population. This genotype, however, is not reported to significantly increase homocysteine levels. Is controversial whether the genetic study aids to the initial management of hyperhomocysteinemia but do we know the prevalence of mutations MTHFR genes in the treated population and resistant to the therapy?

Conclusions: Our work is the first one to study the prevalence of mutations in RH. The resistant hyperhomocysteinemia is mostly accompanied by a gen alteration. Hyperhomocysteinemia is not a trivial alteration and the present study emphasizes the relevance of genetic testing at least in patients with resistant hyperhomocysteinemia. Further studies should be designed specifically to meet the proper handling of drugs and doses for this situation, especially in subjects at high cardiovascular risk. When no genetic testing is available, the evaluation of a short-term response to treatment could be a good alternative.

RV-19
UTILITY OF GENETIC TESTING FOR DIAGNOSIS OF LDLR AND APOB RELATED HETEROZYGOUS FAMILIAL HYPERCHOLESTEROLEMIA (FH)

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Objectives: 1. To evaluate of utility of genetic testing for diagnosis. 2. To study specificity and sensibility of the Achilles tendon ultrasonography.

Material and method: N = 57 patients with clinical criteria of heterozygous FH (Williams et al: Am J Cardiol, 1993) consented to genetic screening by the use of molecular genetic testing; Age: 46.9 ± 15.3 years old (mean ± SD). Gender: 33 males (57.9%): 44.3 ± 14.48 years old, BMI: 27.47 ± 14.48 kg/cm^2, weight: 80.37 ± 12.05 kg; 24 females (42.1%), 50.63 ± 15.91 years old, BMI: 26.09 ± 3.81 kg/cm^2, weight: 66.51 ± 12.66 kg. Smokers: N = 13 (23.2%) (9m/4f); Hyperglycemia: N = 15 (26.3%) (8m/7f). Hypertension: 21 (36.8%) (11m/10f). Clinical atherosclerosis (including coronary heart disease): N = 8 (14%). (4m/4f). Two APOB fragments involving parts from exons 26 and 29, and the 18 LDLR exons were analyzed by capillary sequencing. In 23 patients an Achilles tendon ultrasound was carried out. Statistical analysis: Continuous variables described as mean ± SD. Alpha = 0.05. Chi-square test for the comparison of two proportions. Specificity and sensibility.

Results: 1. N = 20 (39.2%) were mutation carriers. 2. N = 8 of these subjects (8/20) (40%) had mutations not previously described and with uncertain diagnostic significance. 3. N = 37 (72.5%) diagnosed patients by non-genetic standards clinical and biochemistry criteria, were noncarriers and considered as false positives. 4- In the 23 patients studied with ultrasound the test showed signs of tendinosis in 10 (43.4%) (4 carriers (m) and 6 non-carriers (f)) whereas 13 (56.5%) (9 carriers -5m/4f- and 4 non-carriers -2m/2f) had a normal study. Sensitivity = 30.8%. Specificity = 40%.

Discussion: Both LDLR-related Familial Hypercholesterolemia (FH) and APOB-related familial defective apolipoprotein B-100 (FDB) are dominantly inherited conditions associated with premature CHD and myocardial infarction. The mutation that causes this genetic abnormality occurs on chromosome 19. The diagnosis of homozygous form is easy whereas the diagnosis of the heterozygote is not so. The use of clinical criteria to diagnose heterozygous FH in general practice had a sensitivity of 46.2% and a specificity of 88.0%. (Leren et al. Community Genet. 2008;11:26-35). The Achilles tendon ultrasonography has been proved useful as a complementary diagnostic tool in the homozygous form but is unclear its contribution in the diagnosis of the heterozygous form. The genetic confirmation is a low-cost test, equivalent to 2 months of statin therapy, however there are still many barriers for it use in large scale.

Conclusions: The utility of non-genetic diagnostic criteria for heterozygous FH in general practice is very low. The Achilles ultrasound test gives false positive results in women and false negative in both gender. Molecular genetic testing should be implemented in clinical medicine due to a main reason: to avoid an unnecessary medical mistake that has a cost equivalent to two-months of statin therapy. The economical, clinical and familiar implications related to this disease warrants a better diagnosis. The present study emphasizes the relevance of genetic testing in screening and treatment of heterozygous FH patients and the needing of further research in this lethal disease.

RV-20
CORRELATION OF FLOW-MEDIATED DILATION WITH C-REACTIVE PROTEIN AND CAROTID INTIMA-MEDIA THICKNESS IN A POPULATION WITH MODERATE-HIGH CARDIOVASCULAR RISK UNDER TREATMENT

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Objectives: 1. To correlate endothelium-dependent vasodilation as measured by flow-mediated dilation (FMD) with high-sensitive C-reactive protein (hs-CRP), carotid intima-media thickness (CIMT) and coronary risk. 2- To correlate FMD with salbutamol-mediated dilation (SMD).

Material and method: 74 patients (51.3% males), age: 61.1 (13.2) years were studied: 78% hypertensives, 34.2% with type 2 diabetes mellitus and 14.5% smokers. Patients with type 1 diabetes, latent-autoimmune-diabetes-adult, established cardiovascular disease or hs-CRP above 15 mg/dl were excluded. CIMT was assessed on the posterior wall of the common carotid artery using a 5-12 MHz multi-frequency linear array ultrasonic transducer (General Electric Vivid-5s). Endothelium-dependent vasodilation was assessed according to the Celermajer's test (15 seconds after cuff deflation) and FMD expressed as percentage change from basal diameter of the brachial artery (%). Then, two pharmacological tests were carried out: inhaled salbutamol (5, 10 and 15minutes after 100mcg) and sublingual nitroglycerin (3, 5 and 10 minutes after 400mcg). SMD at each point expressed as percentage change from basal diameter (%). Nitroglycerin was used to exclude patients with impaired endothelium-independent vasodilation (none was excluded). hs-CRP (mg/dl) by Siemens Nephelometer. 10-year coronary risk (%) according to Framingham model calibrated for Spanish population (REGICOR). Statistical Analysis: continuous variables as mean (standard deviation). Pearson's correlation coefficient (r).

Results: 1. In our population the mean FMD was 5.67 (7.17)%. Mean values of CIMT and 10-year coronary risk were 0.74 (0.23) mm and 3.66 (2.74)% respectively. 2. FMD was inversely correlated with hs-CRP ($r = -0.257$, $p = 0.039$) and with CIMT ($r = -0.229$, $p = 0.05$), but did not show significant correlation with coronary risk. 3. The results of SMD at every point were strongly correlated to FMD (5 min: $r = 0.435$, 10 min: $r = 0.397$, 15 min: $r = 0.464$; $p < 0.001$). Particularly, in non-diabetics, the association between CIMT and SMD seems to be stronger than with FMD at several points (5 min: $r = -0.352$, $p = 0.016$; 15 min: $r = -0.309$, $p = 0.037$).

Discussion: SMD has been recently introduced as a complementary test of FMD evaluated according to Celermajer. Traditional cardiovascular risk estimation losses predictive ability in treated patients. Therefore, it may be advisable to resort to non-traditional risk factors as FMD, CIMT and hs-CRP.

Conclusions: 1. Our results supports the hypothesis that beta-adrenergic vasodilator response –SMD- and FMD are both dependent on Nitric-Oxide synthesis. 2. Besides, elevated hs-CRP serum levels are associated with a blunted systemic endothelial vasodilator function. 3. Finally, we found that in patients with cardiovascular risk under treatment, hs-CRP and CIMT correlate better with brachial FMD than coronary risk models based on traditional risk factors.

RV-21
IDENTIFICATION OF A NOVEL MUTATION (CYS352SER) IN THE LDLR GENE IN THE SPANISH POPULATION

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Objectives: In this study we have identified several members of a family with clinical diagnosis of hypercholesterolemia (HC) carrying a novel mutation in the LDLR gene (p.Cys352Ser).

Material and method: Subjects: we have included in this study four siblings who had given informed consent and were examined for HDL-C, LDL-C and Total-C levels using a Hitachi autoanalyzer. Two APOB fragments involving parts from exons 26 and 29, the 18 LDLR exons, including intron-exon boundaries, and part of the promoter region were analyzed by capillary sequencing.

Results: At the age of diagnosis, three siblings (probands 1-3) showed high levels of Total-C and LDL-C levels in plasma (> 300-500 mg/dl), suggestive of FH, while the other proband (4) had normal levels. Proband 1: Male, 39 years old. Age at onset of HC: 25. Currently in treatment with pitavastatin (4mg/day) and ezetimibe (10 mg/day); Lipid profile: Total-C: 191 mg/dl (4.9 mmol/l); HDL-C: 32 mg/dl (0.8 mmol/l); LDL-C: 139 mg/dl (3.6 mmol/l). Proband 2: Male, 41 years old. Age at onset of HC: 26. In treatment with atorvastatin (10 mg/day) and ezetimibe (10 mg/day); Lipid profile: Total-C: 209 mg/dl (5.4 mmol/l); HDL-C: 32 mg/dl (0.8 mmol/l); LDL-C: 151 mg/dl (3.9 mmol/l). Proband 3: Woman, 30 years old. Age at onset of HC: 15. In treatment with atorvastatin (20mg/day); Lipid profile: Total-C: 252 mg/dl (:6.5 mmol/l); HDL-C: 75 mg/dl (1.9 mmol/l); LDL-C: 157 mg/dl (4 mmol/l). Proband 4: Male, 37 years old. Without medical treatment; Lipid profile: Total-C: 176 mg/dl (4.5 mmol/l); HDL-C: 36 mg/dl (0.9 mmol/l); LDL-C: 119 mg/dl (3.1 mmol/l).

Discussion: Low-density lipoprotein receptor (LDLR) gene mutations cause familial hypercholesterolemia (FH), a genetic disorder with a prevalence of 1 in 500 that is associated with high levels of cholesterol (C) and LDL-C levels in the plasma and early cardiovascular disease.

Conclusions: Our genetic analysis revealed that the affected probands carried a heterozygous mutation in the exon 7 (c.1054T > A) that modifies the amino-acid at position 352 from cysteine to serine. This mutation was not found in the proband non-affected of HF. To our knowledge this mutation has not been previously described in the Spanish or European population, although the exact mutation was found recently in a Taiwanese family with FH (Chiou et al. Atherosclerosis. 2011;216:383-9). The amino-acid Cys352 is highly conserved in the LDLR among other species and is part of the calcium-binding EFG-like domain. Interestingly other amino-acid changes, stop codons or frame-shift mutations have been described in the same position in other families with FH (http://www.ucl.ac.uk/ldlr), highlighting the importance of this residue in LDLR function. On the basis of these findings the mutation Cys352Ser is probably responsible for the hypercholesterolemic phenotype observed in the affected patients. At mechanistic level, experimental assays are required to elucidate with precision the specific functional alterations associated with this LDLR mutation.

RV-22
PROVIDING A CLEAR AND COMPREHENSIVE OVERVIEW OF THE BASELINE METABOLIC STATUS IN LIPID-NAIVE TYPE 2 DIABETIC PATIENTS

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Objectives: To evaluate the relative prevalence of hypercholesterolemia, hypertrigliceridemia, low-HDL, combined or isolated, in T2DM patients without lipid lowering drugs.

Material and method: N: 126 T2DM patients, under no lipid-lowering drugs (lipid-naive), were selected. Males: n = 86; age: 59.5 ± 10.8 years (range: 36-88); time from T2DM diagnosis: 6.1 ± 7.4 yrs (1-35); BMI (body mass index): 28.3 ± 4.2 Kg/m^2 (20-43.6). Females: n = 40; age: 66.7 ± 11.2 years (45-95); time from diagnosis: 10.2 ± 8.4 years (1-30); BMI: 31.4 ± 5.8 Kg/m^2 (22-57.9). A lipid profile was carried out including total-cholesterol (t-C), HDL-cholesterol (HDL-C) and triglycerides (TG), measured by Hitachi autoanalyzer. LDL-cholesterol (LDL-C) was calculated in subjects with TG < 400 mg/dl (< 10.3 mmol/L) using the Friedewald equation. Atherogenic or diabetic dyslipidemia was defined as: hypertriglyceridemia (TG > o = 150 mg/dl (1.7 mmol/L)) & low HDL-C (≤ 40 mg/dl (1 mmol/L) in males or ≤ 50 mg/dl (1.3 mmol/L) in females). A1c (DCCT) in %. Statistical analysis: continuous variables are described as mean ± SD. Significance 0.05 for mean comparations. Student-t test for independent samples. Levene's test for variance homogeneity.

Results: 1. In males, 10.5% presented isolated hypercholesterolemia; 26.7% had hypertriglyceridemia and just 5.8% showed mixed dyslipidemia. Isolated low HDL-C was observed in 22.1%, low HDL-C & hypercholesterolemia in 3.5%; low HDL-C & hypertriglyceridemia (diabetic or atherogenic dyslipidemia) in 18.6%. 2. In females, 17.5% presented isolated hypercholesterolemia; 27.5% had hypertriglyceridemia and just 2.5% showed mixed dyslipidemia. Isolated low HDL-C was observed in 17.5%, low HDL-C & hypercholesterolemia in 5.0%; low HDL-C & hypertriglyceridemia (diabetic or atherogenic dyslipidemia) in 25.0%. 3. Isolated or combined low-HDL was observed on 53.5% of males and 50% of females. 4. Low HDL-C and hypertriglyceridemia, but not hypercholesterolemia, were related to a worse glycemic control evaluated by A1c (DDCT). Subjects with hypertriglyceridemia presented higher A1c than those with normal TG (7.95 ± 1.7 vs 7.4 ± 1.7). Similar differences were observed in regard to low HDL-C (7.8 ± 1.8 vs 7.4 ± 1.6). These differences did not achieve statistical significance.

Discussion: Although only 17% of the ACCORD participants had atherogenic or diabetic dyslipidemia, it is usually thought that this is the most frequent dyslipemic alteration in type 2 diabetes patients (T2DM) without lipid lowering drugs. On the other hand, prevalence of hypercholesterolemia is considered to be relatively

low, although it is higher in women than men (UKPS, Lancet, 1997). The prevalence of mixed dyslipidemia (hypercholesterolemia & hypertriglyceridemia) is not well-known.

Conclusions: 1. The term "diabetic dyslipidemia" does not implies that it is the most frequent lipemic alteration in T2DM. According to our results and the ACCORD study the prevalence of diabetic dyslipidemia is really low. 2. Low HDL-C is the most prevalent alteration. Half of lipid-naïve T2DM patients showed isolated or combined low HDL-C. 3. Hypertriglyceridemia is also more frequent than diabetic dyslipidemia. 4. TG and HDL-C, but not LDL-C, seem to be related to glycemic control. 5- This kind of study provides a clear and comprehensive overview of the baseline metabolic status in lipid-naïve T2DM patients.

RV-23
EFFECTIVENESS OF EDUCATIONAL PROGRAMS FOR PATIENTS WITH TYPE 1 DIABETES MELLITUS: A META-ANALYSIS

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Objectives: To assess the effectiveness of educational programs in terms of metabolic control measured by HbA1c, and show the influence on acute complications (hypoglycemia and diabetic ketoacidosis). Also consider changes in the quality of life.

Material and method: Search strategy: We searched The Cochrane Library, MEDLINE, EMBASE, TRYP database, Clinical Evidence and PASCAL. Additionally, we searched reference lists of relevant studies identified. No language restriction was made. Selection criteria: Studies were included if they were randomized controlled trials comparing diabetes education programs with standard care in people between 12 and 65 years old with type 1 diabetes mellitus. Studies were included if the outcomes were changes on glycosylated hemoglobin, proportion of hypoglycemic episodes or diabetic ketoacidosis and/or changes on life quality. Data collection and analysis: Two authors independently assessed risk of bias and extracted characteristics of included studies. Meta-analyses using a random-effects model were performed.

Results: Seven studies randomized 946 participants with type 1 diabetes to either intervention. Overall, studies quality was poor and the heterogeneity elevated. There was not a statistically significant difference in glycemic control (mean difference -0.07, 95% confidence interval -0.29 to 0.16). Patients on educational group presented less hypoglycemic episodes, although that it was not statistically significant (RR 0.75, 95% confidence interval 0.46 to 1.22). Only two studies show information about diabetic ketoacidosis, but presented a high heterogeneity (I2 87%). There were no obvious differences after data combination (RR 0.97, with p 0.99). Life quality was evaluated with ADDQoL scale, obtaining better punctuation in the educational group, but without significance (weighted mean difference 0.20, 95% confidence interval -0.19 to 0.58, p 0.31).

Discussion: There were only seven studies that met the inclusion criteria. Many studies were excluded from the review because they were not randomized controlled trials or because they included both patients with diabetes mellitus type 1 and type 2, or in cases involving only type 1 diabetics, they were pediatric patients. The included studies were generally of poor quality, mainly due to inadequate allocation concealment and having a small sample size. None of those included studies was blind. As the intervention is an educational program that requires the involvement of patients assigned in that group, it is very difficult to blind it. As the studies have a high heterogeneity, we consider that the best option would have been to have made a qualitative analysis instead of having performed a meta-analysis of pooled data.

Conclusions: It seems that educational programs can improve metabolic control in diabetic patients, without increasing at the same time hypoglycemic episodes and in that way improving life quality, but we did not obtain statistically significant results. On the future, more randomized controlled trials with better methodological quality must be made.

RV-24
COMPLEXITY ANALYSIS: A BETTER PREDICTOR THAN VARIABILITY FOR GLUCOSE REGULATORY SYSTEM DYSFUNCTION

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Objectives: Glucose variability seems to be a risk factor for diabetic complications per se, independently of the glucose levels. However, the metrics usually employed to assess glucose variability are fraught with problems. Recently, new methods derived from nonlinear dynamics seem to offer more sensitive and reliable tools to detect subtle dysfunctions of the glucorregulatory system with prognostic relevance, and to provide a new point of view on glycemic fluctuations. We compare complexity analysis of glucose time series (obtained by continuous glucose monitoring system) with the most commonly employed metrics to assess glycemic variability (namely Mean Amplitude of Glucose Excursions (MAGE) and Continuous Overlapping Net Glycemic Action (CONGA) in two datasets:.- an ambulatory group (n = 41) composed of healthy volunteers and ambulatory patients with increased vascular risk (defined as complying with at least one of the following conditions: BMI > 30, essential hypertension or a first degree relative with diabetes mellitus type 2, while not being diabetics themselves). This group included 16 patients complying with the NCEP-ATPIII criteria (3 or more) for the Metabolic Syndrome.- a group (n = 36) of critically ill patients admitted in the ICU Furthermore, we provide a free software to analyse both variability and complexity of glycemic profiles. The software is available at http://fractal-lab.org/Downloads/gluc_complex.html.

Results: In each dataset there was an inverse correlation between complexity and variability (direct correlation between DFA and variability metrics)... Complexity (but not variability) was significantly higher in healthy volunteers than in patients with the metabolic syndrome (DFA 1.30 (SD 0.13) vs 1.40 (SD 0.08), p = 0.009, no significant differences for MAGE or CONGA). There was a significant inverse correlation between complexity and the number of criteria for the metabolic syndrome met by each patient (rho = 0.433, p = 0.008). The correlation between variability metrics and the number of criteria did not achieve statistical significance. In critically ill patients, complexity (but not variability) was significantly different in surviving vs non-surviving critically ill patients (DFA: 1.48 (SD 0.10) vs 1.62 (SD 0.15) (p = 0.004); no significance differences for MAGE or CONGA), with a higher complexity (lower DFA) conferring a better prognosis. An increase in 0.1 in DFA implied an OR for survival of 0.35.

Discussion: While at first glance similar, complexity and variability are in a certain sense the opposite: high variability is a consequence of a "sluggish" glucoregulatory system, which needs fairly large departures from normality to unleash correcting processes. On the other hand, high complexity (low DFA) reveals a "sharp" glucoregulatory system, able to detect and quickly correct minor deviations. Variability metrics have considerable methodological problems, most notably an arbitrarily defined span of time to measure CONGA, and an arbitrarily definition of glycemic excursion

to obtain MAGE. Complexity analysis avoids these "red marks", and studies glycemic fluctuations without having to define arbitrary limits, therefore arguably providing a swifter and more physiological point of view. We suggest that the first signs of glucose control impairment would be a loss of complexity in the glycemic profile. Indeed, in both of our databases glycemic complexity was able to identify relevant clinical data not detected by conventional variability metrics.

Conclusions: Complexity analysis provides a more sensitive and specific tool to analyse glycemic fluctuations and may offer a more precise picture of the early steps of glycemic dysregulation.

RV-25
THE ROLE OF DPP-4 INHIBITORS ON THE LIPID PROFILE AND CARDIO-VASCULAR RISK OF PATIENTS WITH TYPE 2 DIABETES

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Objectives: Type 2 diabetes has been officially as a major cardiovascular risk factor and is equivalent to coronary diseases. This paper aims to show the benefit of DPP-4 inhibitors treatment on the lipid profile and to quantify the cardiovascular risk assessment by Framingham score and SCORE chart in patients with type 2 diabetes.

Material and method: In this study participated 37 type 2 diabetes patients treated with DPP-4 inhibitors, in the Clinical Center of Diabetes in Oradea, and they were followed over a period of 6 months. Lipid profile in the context of the study: cholesterol and triglycerides as well HDL-cholesterol and LDL-cholesterol. Framingham Score: uses 6 risk factors: sex, age, smoking status, total cholesterol, HDL cholesterol, systolic blood pressure. SCORE charts provides 10-year prediction of cardiovascular mortality, uses 5 risk factors: sex, age, smoking status, total cholesterol, systolic blood pressure.

Results: The gender distribution of cases results in a ratio 1:1 between women and men: 70.2% had ages between 51-70 years; 54.1% had cardio-metabolic family history; associated diseases were not recorded only in 3 patients (8.1%), majority having arterial hypertension (64.9%) and dyslipidemia (62.2%). The most frequent associating was between hypertension + dyslipidemia (32.4%).73.0% had a duration of the diabetes mellitus evolution under 5 years. Over 70% of patients say that they do moderate physical exercise and 70.3% have pro-aterogen diet. Triglycerides had above normal values at the times of the 3 measurements, however still decreased from 216.8 mg/dl to 188.0 mg/dl ($p < 0.001$). The evolution of total cholesterol ($p = 0.021$), of HDL-cholesterol ($p < 0.001$) and of LDL-cholesterol ($p = 0.027$) was favorable. The Framingham score indicated an increased cardiovascular risk, mean values being over 20 (23.59), at 3 months it was still at the level between moderate risk and increased risk, and at 6 months it indicated a moderate risk (17.95). In correlation with the evolution of cholesterol, HDL-cholesterol, arterial hypertension, the treatments results in a decrease in the cardiovascular risk (ES = -2.14). Mean value of the Framingham score is significantly higher in men than in women (26.4 versus 20.9) ($p < 0.001$) and is observed along with increase in age, resulting in a direct correlation between increased age and cardiovascular risk($r = 0.96$). During all 3 evaluations the SCORE index indicated an increased risk, the values being over 5 (12.32, 10.80, respective 9.89). However there was a decreasing trend of the SCORE index, which indicated a good effect of the treatment upon reducing the cardiovascular risk (ES = -1.76).

Discussion: Between fasting glucose, HbA1c and Framingham score exists a direct reverse correlation ($r = 0.61$), in fact the less metabolic control the greater the cardiovascular risk.

Conclusions: 1. Improved lipid profile, decrease in total cholesterol, LDL-cholesterol and triglycerides was observed ($p = 0.021$, $p = 0.027$, $p < 0.001$) and HDL-cholesterol increased ($p < 0.001$). 2. The effect of treatment on blood pressure was good, SBP values decreased from 150.6 to 138.2 mmHg ($p = 0.021$) and DBP from 90.4 to 84.8 mmHg ($p = 0.047$). 3. Framingham score averages were significantly higher in men than in women (26.4 versus 20.9) ($p < 0.001$) and the Framingham score increased with age, resulting in a direct correlation between age and cardiovascular risk ($r = 0.96$) 4. Regarding the evolution of metabolic profile, fasting glucose, and the 2-hour postprandial glycemia decreased significantly at 6 months compared to the baseline ($p < 0.001$). HbA1c had a downward trend during the 6 months (initial 7.17 to 6.23 in the first 3 months, and then to 5.72 in 6 months.

RV-26
USE OF ANTIHYPERTENSIVE DRUGS, COMMON ASSOCIATIONS AND DURATION OF ESSENTIAL HYPERTENSION IN THE VASCULAR RISK UNIT OF THE UNIVERSITY HOSPITAL COMPLEX OF SALAMANCA IN A PERIOD OF 2 YEARS

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Objectives: Retrospective study of the use of antihypertensive drugs, duration of the hypertension, target organ impact and common associations in the patients with essential hypertension who were admitted in the Vascular Risk Unit of the University Hospital Complex of Salamanca in a period of 2 years, from January 2010 to December 2011.

Material and method: The Vascular Risk Unit services the whole province of Salamanca. We collected all the clinical records of patients with a diagnosis of essential hypertension which included complete anamnesis, 3 automated blood pressure measurements, electrocardiogram, echocardiogram, fundus of the eye, ankle-arm index, renal function, lipid profile, microalbuminuria in urine after 24 hours, number of antihypertensive drugs, doses and associations, and we assessed the therapeutic adherence with the Morisky-Green-Levine test and its 4 classic questions. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: 143 patients were analyzed, and 40 of them were ruled out because they did not meet the requirements. Out of the 103 remaining patients, 53% were women with an average age of 71 years and 46% were men with an average age of 68 years. Essential hypertension of less than 5 years of evolution was present in 44% of the women and in 55% of the men, and the same condition of more than 5 years of evolution was present in 73% of the women and in 26% of the men. The differences between sexes were statistically significant ($p < 0.046$). 52% of the patients showed some kind of organ impact: nephropathy in 64.7%, cardiopathy in 30.3%, vascular involvement of the CNS in 18.4%, ophthalmopathy in 6.7% and triple involvement in 6% (cardiopathy, vascular involvement of the CNS and the PNS), and no statistically significant differences were found regarding sex ($p = 0.92$). 73.8% of the patients received diuretics (1.33 times more in the case of women), 57% of the patients received calcium antagonists (1.45 times more in the case of women), 32% received beta blockers (3.1 times more in the case of men), 69% received ARA-2 (1.36 times more in the case of women), 29% received ACE inhibitors (with the same levels for both sexes), 25% received alpha blockers (2 times more in the case of men) and 23% received renin inhibitors (1.81 times more in the case of men). 84% of the patients received more than 2 drugs, and 15% received

more than 3. The most commonly used diuretics were hydrochlorothiazide (64.5%) and furosemide (22%). In the case of calcium antagonists it was amlodipine (67%), followed by lercanidipine (15.3%). In the case of ARA-2 it was valsartan (38.9%), followed by olmesartan (25%) and irbesartan (9.7%). In the case of beta blockers, it was bisoprolol (36%) followed by atenolol (18%) and metoprolol (15%). 91% of the patients reported adherence to the antihypertensive treatment, according to the Morisky-Green-Levine test.

Conclusions: Patients with essential hypertension admitted in the Vascular Risk Unit of the Hospital Complex in a period of 2 years are mainly women of middle-advanced age, with hypertension of more than 5 years of evolution, who present kidney and heart involvement as target organ impact and who take more than 2 antihypertensive drugs. The most common triple association is one diuretic (hydrochlorothiazide) with one angiotensin II receptor antagonist (valsartan) and one calcium antagonist (amlodipine), followed by a combination of diuretics and one angiotensin II receptor antagonist. Notably, ACE inhibitors have been replaced by angiotensin II receptor antagonists in the treatment. Also, beta blockers and alpha blockers are seldom used, and they are mainly prescribed for men, probably because they present cardiopathies with an associated prostatic hypertrophy. There is a high adherence to the antihypertensive treatment due to the use a combined treatment with double and triple association of medication.

RV-27
USE OF ANTIDIABETIC MEDICATION AND GLYCATED HEMOGLOBIN LEVELS IN TYPE 2 DIABETIC PATIENTS IN THE VASCULAR RISK UNIT OF THE SALAMANCA HOSPITAL COMPLEX IN A PERIOD OF 7 YEARS

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Objectives: Retrospective study of associated diseases, duration of diabetes, target organ damage, glycated hemoglobin levels and use of oral and non-oral medication in type 2 diabetic patients who were admitted in the Vascular Risk Unit of the Salamanca Hospital Complex in a period of 7 years, from March 2006 to March 2012.

Material and method: The Vascular Risk Unit services the whole province of Salamanca, and it is located in the Virgen Vega Hospital of the Hospital Complex. We collected all the clinical records of patients with a diagnosis of diabetes mellitus which included complete anamnesis, 3 automated blood pressure measurements, lipid profile, glycated hemoglobin (HbA1C), microalbuminuria in urine after 24 hours and the treatment. We was applied. Metabolic syndrome was defined according to the criteria of the National Cholesterol Panel Expert III (NCPE III). The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: 121 patients were analyzed, and 50 of them were ruled out because they did not meet the requirements in the "Material and Methods" section. Out of the 71 remaining patients, 52% were women with an average age of 75 years and 48% were men with an average age of 67 years. With regard to their clinical records, hypertension appeared in 54% of the women and 45.8% of the men. Metabolic syndrome was found in 75% of the men and in 25% of the women ($p < 0.16$), 42% of the patients presented some kind of organ damage: 28% showed nephropathy, 26% presented cardiopathy and 4.7% showed vascular involvement of the CNS. The average level of glycated hemoglobin was 7.16 mg/dl in women and 7.13 mg/dl in men, and the difference between them was not statistically significant. 52% of the women and 47% of the men were diabetic for more than 5 years. No statistically significant association was found between the duration of diabetes for more than 5 years and HbA1C levels. 70% of the patients received metformin (66% of women), 23% received DPP-4 inhibitors (inhibitors of dipeptidyl peptidase 4), 17% received glinides and 12% received sulfonylureas (SU). 35% of the patients were insulinized and 8% received liraglutide. 42% of the patients received more than 2 drugs (metformin and DPP-4 inhibitors in 75% of the cases) and 12% of the patients received more than 3 drugs (in 57% of the cases SU was added to the previous two.

Conclusions: Diabetic patients admitted in the Vascular Risk Unit of the Hospital Complex in a period of 7 years were mainly middle-aged women, mostly hypertense, with renal involvement (the stage of the condition was not measured), with the glycated hemoglobin levels under control and more than 5 years of evolution of their metabolic condition. They take at least two oral antidiabetic drugs (metformin and DPP-4 inhibitors) and they are barely insulinized. We can highlight the decrease in the SU consumption and the growing use of subcutaneous GLP-1, as well as a higher prevalence of metabolic syndrome in diabetic men, compared with the women.

RV-28
EPIDEMIOLOGICAL STUDY OF VASCULAR RISK FACTORS AND TARGET ORGAN LESIONS IN DIABETIC PATIENTS IN THE VASCULAR RISK UNIT OF THE CLINICAL HOSPITAL OF SALAMANCA IN A PERIOD OF 2 YEARS

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Objectives: Retrospective study of patients with type 2 diabetes who were treated in the Vascular Risk Unit of the Clinical Hospital of Salamanca for 2 years, from January 2010 to December 2011, in order to establish their clinical and biological characteristics, age, sex, body mass index, LDL levels, classic vascular risk factors (VRF), target organ lesion (TOL), statin consumption and type of statins.

Material and method: We gathered the clinical records of all diabetic patients who were treated in the Vascular Risk Unit for 2 years and recorded data regarding complete anamnesis, anthropometric indexes, arterial pressure and AP monitoring after 24 hours if required, AP staging according to the guidelines of the European Society of Hypertension (grade 1: PAS 140-159 and/or PAD 90-95; grade 2: PAS 160-179 and/or PAD 100-109; grade 3: PAS ≥ 180 and/or PAD ≥ 110), electrochardiography, echocardiogram, ophthalmoscopy, ankle-arm index, renal function, lipid profile, microalbuminuria in urine after 24 hours and treatment applied. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: 121 diabetic patients were studied, and 20 were ruled out because they did not meet the requirements. Out of the 101 remaining patients, 58.8% were women with an average age of 73 years and 41.2% were men with an average age of 69 years. The average body mass index was 30.88 in women and 29.09 in men, and the difference between sexes was statistically significant. 42% of the patients presented hypertension (68.4% of the women). In this group, an optimal BP was obtained in 63.1% of the patients, it was normal-high in 20.2% of the patients, grade 1 in 33% of the patients and grade 2 in 27.1% of the patients. The average LDL levels were 104.3 in women and 102 in men with no significant differences regarding sex. With regard to VRF in women, obesity-dyslipidemia was present in 51.2% of the cases, obesity and postmenopause in 39% of the cases and ischemic cardiopathy in

9.8% of the cases. In men, obesity-dyslipidemia was found in 37.5% of the cases (differences between sexes were statistically significant), active tobacco consumption in 16.7% of the cases and ischemic cardiopathy in 9.8% of the cases. The target organ lesion was not found in 49% of the cases. There was some degree of nephropathy in 34.7% of the cases (in women this rate was 34.1%), cardiopathy in 32.8% of the cases, CVA in 27.3% of the cases, nephropathy and ophthalmopathy in 18.9% of the cases and alteration of the ankle-arm index in 5.5% of the cases. 65% of women and 58% of men received statins: atorvastatin in 33.3% of the cases, simvastatin in 8.9% of the cases and fluvastatin in 4.9% of the cases. There were no statistically significant differences between LDL levels and statins consumption.

Conclusions: Diabetic patients in the Vascular Risk Unit of the Clinical Hospital of Salamanca are mainly women of an advanced age, obese and dyslipidemic, with controlled hypertension (optimal). In most of the cases they present nephropathy as organ target impact, with unacceptable LDL cholesterol levels for diabetic patients, according to the Guidelines of the NCEP 2010 (National Cholesterol Education Program). Renal involvement, followed by cardiopathy, is the most commonly found lesions in our series. Atorvastatin is the most commonly used statin in both sexes.

RV-29
NEW VASCULAR AGE CHARTS FROM FRAMINGHAM GENERAL CARDIOVASCULAR RISK PROFILE

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Objectives: Vascular age is a new epidemiological concept in patient management. Vascular age calculation is a new approach to evaluate non-high risk cardiovascular patients, especially young ones, as stated in the European cardiovascular guidelines recently published. There are two methods to calculate cardiovascular age from cardiovascular risk tables. The first method is derived from Framingham Heart Study (FHS) with several point-based tables. The second method is derived from SCORE project with coloured tables. The objective of this study is to create vascular age charts derived from FHS but with SCORE project stylus which is more useful in daily practice.

Material and method: Coefficients from the Cox model used in FHS general cardiovascular risk profiles were used to calculate vascular age. The variables used in the calculation were age, sex, total cholesterol, HDL-cholesterol, systolic blood pressure, hypertension treatment, smoking and diabetes. Several box charts were created according the values of the variables. The values in the boxes are the vascular ages calculated with the values of the variables. The result is presented in a SCORE chart stylus.

Results: Several box charts are presented to calculate vascular age. There are 2 charts depending on sex, splitted by smoking and diabetes status. The value of vascular age depends on systolic blood pressure, total cholesterol and age. There are two additional modifying factors: HDL-cholesterol and treatment for hypertension.

Discussion: The new vascular age charts are presented as box-charts like SCORE risk charts. This chart format is more serviceable than point chart format as vascular age can be calculated easier and can be presented to patient in a friendly way. Vascular age is recommended for helping to communicate about risk, especially to younger people. The last European guidelines on cardiovascular disease prevention recommend "Speak to the individual in his/her own language" as one of the principles of effective communication to facilitate behavioural change.

Conclusions: Vascular age derived from Framingham Heart Study can be presented as charts in the same way as SCORE vascular age charts. These new charts are more useful than usual point charts.

RV-30
CARDIOVASCULAR COMORBIDITY IN PATIENTS HOSPITALIZED FOR ACUTE COPD

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Objectives: Chronic obstructive pulmonary disease (COPD) is associated with several comorbidities that confer a multiorgan character. The aim of this study is to quantify the prevalence of major cardiovascular disease in these patients: hypertension, heart failure, ischemic heart disease and vascular disease (including: pulmonary thromboembolism, valvular, aortic aneurysm and peripheral arterial disease) and the main risk factor for these diseases: smoking.

Material and method: Observational, retrospective, transversal descriptive study, in which we have reviewed the reports of patients discharged consecutively at the Hospital Clínico Universitario Lozano Blesa in the period from January to December 2011, being the first or second diagnosis COPD (ICD 491), emphysema (ICD 492) and chronic airflow obstruction (ICD 496). We reviewed a total of 516 reports, extracting demographic data and comorbidities described.

Results: 20% of admitted patients were women (N = 77), and 80% male (N = 299), with a mean age of 74.4 years (range 39-100). The average patient stay was 12 days, with a median of 10 days. Of the 516 reports, 140 were readmissions, so the number of patients amounted to 376. 25% of patients were readmitted within 3 months or had entered the previous month. Hypertension is the most prevalent comorbidity in these patients, 62.7% (59.5% men, 72.7% of women), with a readmission rate of 24.3%. The prevalence of heart failure was 29.8% (29% men, 34% of women), with a readmission rate of 20%. Ischemic heart disease is present in 16% (17% men, 13% of women), with a readmission rate of 30%. As vascular disease was included the following diseases: pulmonary thromboembolism, valvular, aortic aneurysm and peripheral arterial disease. The prevalence of these diseases as a whole was 19% (16% of women and 20% of men), with a re-entry of 27%. A 20.6% of patients remain as active smokers (20.8% women, 20.4% of men).

Discussion: It should be noted that over 60% of patients have hypertension. Readmitted patients more than the average are those with ischemic heart disease, with a rate of 30% (vs 20%), however the number of readmissions per patient is lower than the average (1.35 vs 1.5). It is known that mortality in these patients is often due to comorbidities. Exacerbated COPD revenues have been four times more common in men, probably due to earlier incorporation of smoking. All cardiovascular diseases that were analyzed in this study were more frequent in women with the exception of ischemic heart disease, which affects treatment and closer monitoring in these patients. The coexistence of COPD with heart failure (29.8%), determines a detriment to the quality of life and greater dependency. Importantly, 20.6% of patients remain active smokers, so it would be necessary to implement a program of active struggle against smoking.

Conclusions: This study determines the high rate of comorbidity in patients with COPD, with the impact in the prognosis that it implies. Proper diagnosis and treatment of these comorbidities will allow a better development of the disease itself and the overall prognosis. It is necessary to implement active control programs against smoking.

RV-31
PHEOCHROMOCYTOMA: DIAGNOSIS AND CARDIOVASCULAR COMPLICATIONS

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Objectives: Cardiovascular signs and symptoms associated with pheochromocytoma are an important cause of morbidity and mortality. The aim of this study was to analyze the clinical presentation, test abnormalities (biochemical test and imaging studies), differential diagnosis and treatment of patients with pheochromocytoma focusing on associated cardiovascular manifestations previous to the surgical treatment.

Material and method: Patients diagnosed with pheochromocytoma from 1999 to 2011 in Hospital La Ribera were retrospectively reviewed. Demographic and clinical data were collected as well as diagnostic test results, treatment and cardiovascular complications.

Results: 16 patients (6 men and 10 women), 52.12 year-old on average were diagnosed with pheochromocytoma. At diagnosis clinical presentation was adrenal mass in 7 cases, symptomatic triad in 3, uncontrolled arterial hypertension in 2, tachyarrhythmia in 2, pheochromocytoma associated syndromes in 3 and myocardial infarction in 1 case. Arterial hypertension was the most frequent sign in 89% (labile 37.5%, uncontrolled 37.5% and 25% paroxysmal hypertension). Hormonal determinations were elevated in 88.9% of patients. Urinary tests detected increased hormonal values in all cases but in different proportion: noradrenaline in 14 cases, normetanephrine in 5, vanillymandelic acid in 8, adrenaline in 7, dopamine in 7, metanephrine in 5 and homovanillic acid in 4 cases. Plasma tests detected increased hormonal values in noradrenaline in 6 cases, dopamine in 3 cases and adrenaline in 2 cases. A direct correlation between severity of clinical findings and hormone levels or number of altered hormonal types not always were observed although most affected patients had at least four times higher values than normal levels in hormonal determinations. Imaging studies were performed in most patients: MRI (72%; compatible 55%), metaiodobenzylguanidine study (MIBG) (72%; compatible 50%), CT (66%, compatible 61%) and echography (28%, compatible 11%). Adequate tensional control was obtained before the surgery in 71.4% cases. Tensional control required treatment with alpha blockers in 69% of patients. The average number of drugs needed prior to surgery was 2.66 ± 1.43. After the surgical treatment, the number of drugs decreased to 1 ± 1.2 with an adequate tensional control in all cases. Surgical removal was carried out in 87.5% of patients. Two patients died before the surgery, due to myocardial infarction with cardiogenic shock (autopsy diagnosis) and pheochromocytoma multi-systemic crisis.

Discussion: Pheochromocytoma-associated cardiovascular features can be cause of severe morbidity and mortality. Early diagnosis and good tensional control previous to the surgical treatment are of essential importance. There is not always a linear correlation between the clinical severity and analytical values. Nevertheless the most affected patients had at least four times higher values than normal levels in hormonal determinations. Although typical, the presence of classic triad with hypertension, not always occurs. A correct diagnosis is confirmed with the combination of compatible clinical manifestations, evidence of catecholamine hypersecretion and/or their derivatives, and radiological images. Genetic tests are important diagnostic tools in a hereditary context as the clinical manifestations occur in earlier ages.

Conclusions: Pheochromocytoma is usually suspected after an incidental finding of an adrenal mass in radiological studies. Presence of pheochromocytoma is suspected in younger patients with hypertension, arrhythmia and/or coronary artery disease. Most patients have uncontrolled arterial hypertension at diagnosis. Isolated arterial hypertension is not sufficient to make a diagnosis. It is based on clinical suspicion, hormonal determinations and radiological exams. MIBG is a confirmation test. In pheochromocytoma-associated syndromes genetic studies are crucial. Cardiovascular events are an important cause of morbidity and mortality previous to the surgical treatment.

RV-32
TAKO-TSUBO DESCRIBED IN PATIENTS IN INTERNAL MEDICINE SERVICE OF REGIONAL HOSPITAL

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Objectives: The Tako-Tsubo or transient apical dyskinesia, a syndrome that may mimic an acute coronary event, accompanied by anginal chest pain, electrocardiographic changes in precordial and moderate increase in cardiac enzymes, is characteristic anteroapical dyskinesia of the left ventricle (LV) reversible within normal coronary angiography. Also intend to show the keys in the differential diagnosis with respect to myocardial infarction.

Material and method: Retrospective study of clinical features, treatment and outcome of a series of patients diagnosed with Tako-Tsubo from January 2009 to May 2012.

Results: During the study period were diagnosed 6 cases of Tako-Tsubo all women. The mean age was 69.7 years (range: 52-86). 80% had the classic cardiovascular risk factors in treatment (most commonly hypertension and dyslipidemia) without evidence of ischemic heart disease or history of pheochromocytoma. The triggering factor in 4 cases was the emotional stress and physical 2. The clinical presentation in all cases was pain with anginal chest pain remission between 3 and 6 h with classical anti-anginal therapy, in both cases, the debut was acute pulmonary edema. Of the constants in emergency medium voltage figures were PAS 152/93 mmHg, with HR in the range of 60-107 ppm with other held constant. Observed in the ECG pattern identifies a superior ST elevation in V4-V6 precordial and lateral in I and aVL with normalization in the range of 1-2 weeks. Regarding laboratory tests, the elevation of troponin I in the 1st h was 0.49 ng/ml (range 0.06-1.08) and CK (range 24-330) with normalization in a week on average. The echocardiogram performed between 24-48h of admission will be observed in all cases the characteristic image of hypo/antero-apical and medial LV with depressed EF mean 44.8% (range 32-72) with EF normalized between 3 week-1 month in the control study. In all patients underwent coronary angiography showing healthy being in 3 cases of tortuous and irregular. All cases had favorable clinical course without complications. Four of the patients received during their admission and discharge beta-blocker treatment with bisoprolol.

Discussion: According to the analyzed results can define the characteristic profile for diagnosis is suspected, middle-aged woman under emotional stress with coronary angina pain, ST elevation in antero-lateral, moderate increase in CK and troponin I with echocardiogram evidence moderately depressed EF and anterior-medial hypokinesis of the LV with normal angiographic study. The clinical course and prognosis is most favorable, being BBblocker treatment of choice. The recovery order is usually improved to 2-3th day clinic, resolution of ECG changes until days or weeks and ultrasonographic changes are normalized within 3 to 31 days.

Conclusions: 1. The Tako-Tsubo is indistinguishable from an acute coronary syndrome by two characteristic features: one, ST elevation in V4-V6 > in V1-V3, with absence of abnormal Q, and two, no change specular underside. 2. The echocardiogram is the key test

for displaying the image of antero-apical dyskinesia of VI characteristic, assisting in the management of these coronary patients and opt instead for fibrinolytic therapy. 3. The physiology of this syndrome is currently unknown, the most obvious hypothesis is maintained catecholaminergic cascade causing vasoconstriction of the microcirculation heart, so the medical treatment of choice are beta-blockers.

RV-33
FREQUENCY ANALYSIS OF POLYMORPHISMS ASSOCIATED WITH TYPE 2 DIABETES IN SPANISH POPULATION AND ITS RELATION CLINICAL MEANING

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Objectives: To analyze the prevalence of different genetic polymorphisms (SNPs) related to the development of type 2 diabetes mellitus in a Spanish population (Avila & Segovia), and to search a possible relationship between them and clinical characteristics.

Material and method: Retrospective longitudinal study of 450 patients from Avila & Segovia; we are presenting here the first sample of N = 70. Patients were recruited after obtaining informed consent, by a working group (Diabila). Analyzed 64 SNPs of genes related to T2DM, obesity, dyslipidemia, other factors of cardiovascular disease and pharmacokinetics (CDKAL1, CKDN2B, MC4R, KCNJ11, FTO, TMEM18, MC4R, APOE...), in an open array for real-time PCR (by Mygen laboratories), of which this paper will present 14 of 64. Getting following clinical and epidemiological data: sex, age and BMI (current and diagnosis), dyslipidemia, HBP, retinopathy, nephropathy, ischemic heart disease. All data above were consolidated and analyzed with SPSS 18. *Results:* (Tables).

Discussion: In T2DM interacting behavioral, environmental and genetic factors. There's variation in response between patients for the same drug and no clinical data to predict the response to a drug. Association studies of genetic variants with T2DM (GWAS) have confirmed the existence of at least 40 loci associated with T2DM.In the study population we observed a lower prevalence of risk factors which lead us to believe that genetic factors strongly influence them. The current results aren't yet reliable to represent a small sample, but serves as a guide.

Conclusions: Despite the observed high prevalence of dyslipidemia and hypertension, its coexistence with T2DM is lower than that found in studies of other population samples. In general, there is increased expression of SNP risk in our population at baseline (study CEU) and even lower expression of protective SNP.

RV-34
RELATIONSHIP BETWEEN GENE VAV2 (VAL 584 MET POLYMORPHISM) AND DIASTOLIC BP

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Objectives: Essential hypertension is a multifactorial entity. It has demonstrated the influence of many genes in development and the influence that it have on the damage to organs such as cardiomyopathy or hypertensive nephropathy. We studied the influence of this gene, through the analysis of one polymorphism in the development of diastolic blood pressure to levels considered pathological.

Material and method: We studied 298 patients from a hypertension unit integrated into M. Internal. We studied 155 men and 143 women. Were taken BP obtained from the ABPM diagnosis, have been used for 24-hour mean values to make the classification and analysis.

Results: we obtained a sample of 118 individuals without hypertension. Individuals with hypertension have been classified into three categories with the following results grade 1 hypertension: 108 individuals, hypertension grade 2: 46 individuals and hypertension grade 3: 26 individuals. The diastolic BP distributed by sex showed the following results: Men: 155 with mean of diastolic BP: 80.33 mmHg and DS: 14.307 Women: 143 with mean of diastolic BP: 80.62 mmHg and DS: 12.251 The genotyping results are as follows: No HTA: TC: 67, TT: 29, CC: 22 HT: TC: 67, TT 48, CC: 42. The study of statistical association between diastolic BP in hypertensive patients and hypertensive patients with the genotype results, has shown no statistical association. Chi squared test: 0.479.

Conclusions: No statistical association was found between diastolic blood pressure and VAV-2 polymorphism Val584Met. Need further studies with larger samples and with data from pathology secondary to hypertension.

Table 1 (RV-33). Part 1. Polymorphisms (r): risk (p): protection

	CDKAL1	CKDN2B	FTOrs9939609	FTOrs8050136	KCNJ11	MC4Rrs12970134
Nitrogenous Base	G(r)	T(r)	A(r)	A(r)	T(r)	A(p)
Presence SNP (%)	41.4	94.2	4.3	64.3	64.3	0
CEU% (reference)	27	80	46	46	35	28

Table 1 (RV-33). Part 2. Polymorphisms (r): risk (p): protection

GNPDA2	TMEM 18	MC4R rs17782313	TCF7L2 rs7903146	TCF7L2 rs7901695	APOE rs429358	APOE rs7412	ADRB3
G(r)	C(r)	C(r)	T(r)	C(r)	C(r)	C(r)	C(r)
68.6	95.7	1.4	70	68.6	10	97	1.4
45	85	27	28	28	< 5	90	11

Table 2 (RV-33). Clinical and epidemiological characteristics (C): current, (D): diagnosis

Average age	Average BMI	Dyslipidemia	HBP	Retinopathy	Nephropathy	Ischemic Heart D.
C:66.8, D:54.9	C:31.6, D:32	64.3%	68.6%	17.1%	15.7%	17.1%

RV-35
L-CARNITINE REDUCES SUNITINIB-INDUCED CARDIAC FIBROSIS

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Objectives: Sunitinib is a tyrosine kinase inhibitor used to treat both advanced renal cell carcinoma and gastrointestinal stromal tumors. One of its major side effects is hypertension, which leads to the development of cardiac fibrosis. Our research group has previously demonstrated an antifibrotic effect of L-carnitine (LC) in the heart of hypertensive rats. The aim of this study was to analyze the effects of LC on sunitinib-induced cardiac fibrosis in rats, and to explore possible mechanisms of LC action.

Material and method: Studies were performed in Wistar rats weighing 280-350 g. Animals were randomly divided into four groups: (1) normotensive control; (2) rats treated with sunitinib (25 mg/kg body weight/day); (3) rats treated with LC (400 mg/kg bodyweight/day); and (4) rats treated with sunitinib plus LC. Treatment with LC started 2 weeks before treatment with sunitinib; thus, the former was maintained for 10 weeks and the latter for 8 weeks. Heart rate and diastolic and systolic blood pressures were recorded weekly. At the end of the experimental period, the animals were anesthetized; the heart was removed intact and weighed, and cardiac index was calculated by dividing each heart weight value by the corresponding animal weight. The left ventricle was then dissected and cut perpendicular to the apex-to-base axis into two pieces. One of these pieces was frozen in liquid nitrogen, stored at -80ºC and used for mRNA expression of type I collagen, TGF-α, CTGF, Nox2 (subunit of NADPH oxidase) and PPARγ. The remaining cardiac tissue was stained with Masson´s trichrome and also with Sirius Red for fibrosis quantification.

Results: Heart rate, systolic and diastolic blood pressure values, and cardiac index were significantly increased in rats treated with sunitinib, while the simultaneous administration of LC restored blood pressure values and cardiac index, and reduced the heart rate values significantly. A significant increase in gene expression of type I collagen, profibrotic factors (TGF-β and CTGF), and the NADPH oxidase subunit Nox2 was found in rats treated with sunitinib. Interestingly, rats treated with both sunitinib and LC presented a decrease in the expression of all these elements, leading to normal values. In addition, Masson's trichrome revealed interstitial cardiac fibrosis, irregularly distributed. When the extent of fibrosis was evaluated by Sirius Red collagen staining, the interstitial spaces occupied by extracellular matrix were increased in the heart of sunitinib-treated rats. However, simultaneous treatment with LC diminished the interstitial fibrotic areas. All these results were accompanied by a downregulation of PPARγ gene expression in heart of rats treated with sunitinib, an effect that was also reverted by simultaneous treatment with LC.

Discussion: The mechanisms underlying sunitinib-induced arterial hypertension are not well known. In this work, we show that a combination therapy, sunitinib plus LC, reduces hypertensive cardiopathy induced by the tyrosine kinase inhibitor. Furthermore, we demonstrate that LC is able to reduce sunitinib-induced cardiac fibrosis; this antifibrotic effect of LC is related with an upregulation of PPARγ system.

Conclusions: 1. The combined therapy, sunitinib plus LC, reduces sunitinib-induced arterial hypertension.2. LC attenuates sunitinib-induced cardiac fibrosis through a modulation of PPARγ pathway.A.

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RV-36
EPIDEMIOLOGIC CHARACTERIZATION OF THE ISCHEMIC STROKE IN INDIVIDUALS AGE OR LESS 65 YEARS – LEARNING IN ORDER TO PREVENT

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Objectives: 1. Study the incidence of the ischemic stroke in individuals age or less 65 years between 2007 and 2011; 2. Analyze the risk factors, usual medication and alterations found in the complementary diagnose exams; 3. Identify which are the predictor factors of the post stroke sequelae (exit value of the NIHSS) and the duration of hospitalisations.

Material and method: In order to perform the present retrospective study, the authors undertook an identification of hospitalisation episodes between January-2007 and the December-2011, indexed to the main diagnose of ischemic stroke hospital discharge. A selection of the corresponding clinical files was performed along with posterior identification of: date of birth, gender, atherosclerotic risk factors and cardioembolics, usual domicile therapeutic, stroke type and anatomic location, results of the complementary diagnose exams carried out, value of the NIHSS at hospital discharge and duration of the hospitalisation. The data was statistically processed using Microsoft Excel® 2010 and SPSS® applications. The statistic tests used were: chi-square test, t test for two independent samples, and linear regression models were created.

Results: The 137 individuals who integrated our study were aged between 25-65, corresponding to an average age of 56.1. 63% were male. The risk factors more frequently found were arterial hypertension (70%), dyslipidemia (60%), mellitus diabetes (24%) and auricular fibrillation (10.9%). Around 60% of the individuals revealed alterations in the echocardiogram and 30.3% in the carotid computed angiotomography (CT). In one of the linear models created, the exit NIHSS scale value predictor variables, were the admittance NIHSS value and the factor: existence or not of hypertension. It was observed that 53.9% of the variability was explained by that model. In the other linear model, the predictor variables of the hospitalisation duration were the admittance NHSSI, the total cholesterol value and LDL, and it was verified that 32.2% of the variability is explained by this model.

Discussion: The incidence of ischemic stroke increases with age and, as we expected, most individuals were in higher age groups, being the average age around 56. However the incidence in the younger population is not one to neglect as, depending on the series, it varies between 5-20%. The classical risks factors for arteriosclerosis were the most frequently identified in the etiopathogeny of ischemic stroke in our population, being hypertension and dyslipidemia the main intervenient. An already evident fact in other series. It must be highlighted that, according to our study, the mentioned risk factors were not only important in the stroke aetiology but also some of them seemed to have an important relation with sequels occurred and with the duration of the hospitalization.

Conclusions: The considerable morbidity and mortality caused by stroke in an active population represent a high socio economic

impact. Therefore, population studies on this subject are of utmost importance. Regardless of the need to analyze some thrombophilias and other rarer or more differenced stroke causes, when other obvious causes are not identified, the high prevalence of arteriosclerosis classic risk factors reinforces, even in the younger population, its importance in prevention and control.

RV-37
USE OF PORTABLE ECHOCARDIOGRAPHY IN INTERNAL MEDICINE SERVICE, HOSPITAL GENERAL UNIVERSITARIO DE LORCA RAFAEL MÉNDEZ

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Objectives: 1. Know the most common echocardiographic diagnostic studies in the last 4 months in internal medicine at the Hospital General Universitario de Lorca Rafael Mendez with portable ultrasound. 2. Estimate the value of portable echocardiography as an adjunct in the initial screening of patients admitted to internal medicine General Hospital Rafael Méndez de Lorca in the last 4 months. 3. Estimate the average time spent on echocardiographic examination with a portable ultrasound.

Material and method: Resource Professional: 5th year Resident in Internal Medicine with a level 2 training in echocardiography. (Levels according to the guidelines of the Spanish Society of Cardiology). Technical Resource: Portable Ultrasound GE VSCAN. Patients: admitted to the Internal Medicine ward in the last 4 months in the Hospital General Universitario Rafael Mendez De Lorca. He was assigned to a resident of 5 th year of Internal Medicine with a level 2 training in echocardiography, a portable ultrasound (General Electric VSCAN) for echocardiographic studies of patients admitted to a dependent, for the guards (5 per month) and in Cardiovascular Risk consultation during the months of January through April of this year, pertaining to Internal Medicine, University Hospital Rafael Méndez de Lorca. During this period he was assigned cases with pathologies of the cardiovascular system preferably. Then we analyzed the echocardiographic studies and classified by the predominant findings.

Results: A total of 124 studies. Of which: 27.4% (34 patients) were normal. 27.4% (34 patients) had left ventricular hypertrophy. 18.5% (23 patients) had systolic dysfunction and altered segmental contractility. 17.7% (22 patients) had valvular disease. 7.2% (9 patients) had other findings (pericardial effusion, pleural effusion, aortic root dilatation, atrial dilatation, right ventricular dilatation). And 3.2% (4 patients) had left ventricular hypertrophy entering into hypertrophic cardiomyopathy. The average in the study was 5.45 minutes.

RV-38
APPROACHING THE MAP OF PRIMARY HYPERALDOSTERONISM THROUGH A PROTOCOLIZED ASSESSMENT OF ALDOSTERONE RENIN RATIO

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Objectives: 1. To evaluate the prevalence of suprarenal pathology (hiperplasia as well as adrenal nodules) in a hypertensive population with moderate-high cardiovascular risk. 2. To evaluate the characteristics of the population with hyperplasia or adrenal nodules and the severity index of hypertension at the time of diagnosis.

Material and method: We studied a population of 174 hypertensive patients with moderate-high cardiovascular risk, all Caucasian. Ratio between the aldosterone/renin measured in blood: radioimnunoanalysis (RIA). Cortisol in urine of 24 hours: chemiluminescence. Metanephrines in urine of 24 hours: Cromatography system. Image studies of adrenal glands with magnetic abdominal Resonance or axial computerized Tomography.

Results: 1. The prevalence of suprarenal pathology was12.6% (21 patients). 2. There were 11 cases with adrenal nodule and 10 with adrenal hyperplasia. We approached the statistical analysis of the two groups with the following features: Adrenal nodules: Average 61.73 ± 10.38, 72.7% adult males (8), 27.3% adult females (3), average age at the time of the diagnosis was 48.91 ± 10.55. Most of the patients (81.8%, 9) had stage 1 hypertension, 18.2% (2) had stage 2. A high renin aldosteron ratio was seen in 63.6%, cortisol and metanephrines had normal values in all the patients. In 36.4% the nodule was removed by laparoscopic surgery. Adrenal hyperplasia: average age was 69.70 ± 7.78, same percent males and females (50%, 5 patients), average age at the diagnosis 47.00 ± 12.71. Most of the patients (70%, 7) had stage 1 hypertension, 20.00% (2) had stage 2 and only one patient had stage 3 hypertension (10%). A high renin aldosteron ratio was seen in 80%, cortisol and metanephrines had normal values in all the patients. 100% of the patients had bilateral adrenal hiperplasia.

Discussion: Hypertension is one of the most common worldwide diseases, with an important morbidity, mortality and economic cost. Essential hypertension is really a diagnosis of exclusion (has not an identifiable secondary cause). The percentage of patients suffering from secondary hypertension depends on the screening done, that explains differences between 5-20% of hypertensive subjects. The prevalence of Primary aldosteronism (PA) in the general hypertensive population remains an unresolved issue. Historically, PA has been considered a rare disease, affecting about 1% of hypertensive patients. However, several studies performed in the last decade report a much higher prevalence of PA (> 10%), suggesting an "epidemic" of this condition. Primary hyperaldosteronism account for 20% of resistant hypertension (hypertension that requires maximally tolerated doses of 3 or antihypertensive medications and one of the medications is a diuretic, full dose).

Conclusions: 1. The prevalence of adrenal pathology related to hypertension in our study reaches 12.6%, which is a significant enough number to insist upon the search for this etiology in our daily routine. 2. A high renin aldosteron ratio has a 84% sensitivity and a 95% specifity in our population. It is a good first step in the screening of primary aldosteronism.

RV-39
STUDY OF THE HFE GENE MUTATIONS IN THE HYPERFERRITINEMIA ASSOCIATED WITH HYPERTENSION, TYPE 2 DIABETES MELLITUS AND INSULIN RESISTANCE SYNDROME

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Objectives: 1. To evaluate the prevalence of hyperferritinemia (HF) in a population with mild-high cardiovascular risk. 2. To assess the presence of mutations in patients with HF and its relationship with the hypertensive state, hyperglycemia and metabolic syndrome.

Material and method: We studied a population of 884 patients with moderate-high cardiovascular risk (used for that purpose the Framingham scale adapted for the Spanish population -REGICOR-),

499 men (56.4%) and 385 women (43.6). 128 had HF (14.5%), 115 male (89.8%) 13 female (10.2%), media aged and standard error was 52.7 ± 12.1 (range 20 to 77 years old) and 65.1 ± 11.8 (range 40 to 80 years old) respectively, and was statistically significant p = 0.001. HF criteria: serum ferritin ≥ 180 mg/dl according to our laboratory normal range, twice in a minimum period of two months; measured by natural chimioluminiscence. The DNA was from blood samples and was tested for C282Y y H63D DNA mutations and the gene HFE using real-timed CPR. 3 of the patients were excluded from the genetic study due to technical difficulties.

Results: 1. The prevalence of HF was 14.5%. 2. In the male group: 37.4% (43) had diabetes, 33.9% (39) was type 2 diabetes, 57.4% (66) had hypertension, 54.8% was the primary form (63), 13.9% (16) had liver fatty, 50.4% (58) had metabolic syndrome. 3. In the female group: 38.5% (5) had diabetes, all of them type 2 diabetes, 84.6% (11) had hypertension, allow them primary, 15.4% (2) had liver fatty, 38.5% (5) had metabolic syndrome. 4. There were gene mutations in 48.8% (61) of the patients: Carriers (heterozygous): 41 patients (34.4%), heterozygous for C282Y: 8.0% (10), heterozygous H63D: 26.4% (33), Homozygous for C282Y: 0, Homozygous for H63D: 11.2% (14), Double heterozygous: 3.2% (4).

Discussion: The Insulin Resistance Syndrome (IRS) is a cluster of abnormalities associated with insulin resistance, including hyperinsulinemia, dyslipidemia, hypertension, hyperglycemia and, lately, hyperferritinemia, either alone or related to a non-alcoholic steatohepatitis (NASH) due to ectopic fat storage. On the other hand, hyperferritinemia is a biomarker of hereditary hemochromatosis (HH) (primary hyperferritinemia), alcoholism and an acute-phase reactant (APR). IRS, alcoholism and APRs have secondary forms of hyperferritinemia. HH was first described in 1865 by Armand Trousseau in an article of diabetes. The HFE gene of HH has two common mutations, C282Y and H63D. Most people with two copies of C282Y or one copy each of C282Y/H63D do not manifest clinical hemochromatosis, a phenomenon known as low incomplete penetrance. It is not ruled out that many of the HF associated with metabolic pathology/hypertension have genetic bases, and that is the main contribution of our study.

Conclusions: 1. The proportion of patients with HF in a population of mild-high cardiovascular risk is low, but this diagnosis is critical for an appropriate patient management. 2. Many of these patients with HF had metabolic syndrome, type 2 diabetes and/or were hypertensive, all of these in relation to insulin resistance. 3. The most important gene mutation in our study was the heterozygous H63D. 4. The genetic study is important not only for the patient but also for the family members.

RV-40
MORBIMORTALITY ANALYSIS IN SECONDARY CARDIOVASCULAR PREVENTION AT 9-YEARS FOLLOW UP: MIRVAS STUDY

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Objectives: To determine whether secondary cardiovascular prevention, involving the comprehensive and intensive treatment of cardiovascular risk factors at 3 years follow up, reduces total morbimortality and total mortality at 9-years follow up.

Material and method: The study design of MIRVAS (Medicina Interna Riesgo VAScular) study comprised a randomized, controlled, open trial in a routine clinical practice setting. In total, 247 patients who presented with acute coronary syndrome (ACS) or stroke were selected. They were randomized to comprehensive and intensive treatment of cardiovascular risk factors (n = 121) or to follow-up based on usual care (n = 126). At 3-years follow up the percentage of patients in whom each risk factor was successfully controlled was determined. We present a cross-sectional analysis study of total morbimortality and total mortality at 9-years follow-up.

Results: Basals characteristics were (intensive vs control group): age 64.89 ± 11.53 vs 65.6 ± 14.3, p = 0.6; woman 20.7% vs 30.2%, p = 0.1; event inclusion: ACS 64.5% vs 66.7%, p = 0.7; stroke 35.5% vs 33.3%, p = 0.4; tobacco smoking 41.3% vs 35.7%, p = 0.4; hypertension 52.9% vs 61.1%, p = 0.2; LDL > 100 mg/dl 62.8% vs 54.8%, p = 0.2 and diabetes mellitus 31.4% vs 26.2%, p = 0.4. Control risk factors at 3-years follow-up were (intensive vs control group): tobacco smoking 90.6% vs 86.3, p = 0.4; global blood pressure target 82.1% vs 71.4%, p = 0.1; LDLc < 100 mg/dl 88.8% vs 56.4%, p < 0.001 and HBA1c < 7% 75.7% vs 28.6%, p = 0.004. Total morbimortality at 9-years follow up was (intensive vs control group): 46.8% vs 64.1%, p = 0.01 and total mortality was 14.% vs 27.8%, p < 0.001. Loss to follow-up at 9-years was 33 (13.4%): 23 (18.3%) in control group and 10 (8.3%) in intensive group, p = 0.003.

Discussion: Basal characteristics are similar to other series. In STENO 2 study the mean treatment period was 7.8 years and patients were subsequently followed observationally for a mean of 5.5 years. The primary end point in STENO 2 study at 13.3 years of follow-up was death from any cause (30% in intensive group vs 50% in control group). Our study shows that sustained benefit with respect to total morbimortality and total mortality outcomes (seen long after the conclusion of the trial) could appear in a shorter intensive treatment period (3- years follow up). If these results are due to a legacy effect or due to a better cardiovascular risk factors control is being analyzed. MIRVAS study has certain limitations. One of them is the heterogeneity of patient follow-up, since patients had no limitation on consultations with different specialists. However, we believe that any additional follow-up is not more frequent in one group than in another, i.e., is equal for both groups, and does not affect the results. The number of patients included in our study is not very large, but has been sufficient to show decreased mortality and morbidity. The number of patients who dropped out of intensive follow up is relatively high. The reason for this dropout rate was mainly duplication of consultations. In spite of the fact that a single follow-up in internal medicine consulting offices would have improved adherence, for ethical reasons we did not consider the possibility of limiting visits to other specialists. Although results at 9-years follow up are better than other studies, loss to follow up were significantly different. An intention to treat analysis and is being performed.

Conclusions: Secondary cardiovascular prevention involving comprehensive and intensive treatment of cardiovascular risk factors at 3 year follow up, reduced both total morbimortality and total mortality at 9-year follow up independently of control risk factors.

RV-41
FACTORS ASSOCIATED WITH HYPERHOMOCYSTEINEMIA IN THE HIV-INFECTED POPULATION

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Objectives: To assess the possible association of increased homocysteine serum level with multiple blood analyses parameters in HIV-infected patients.

Material and method: This is a cross-sectional study, carried out as a supplementary task to the usual control required by HIV-infected patients, in the outpatients' clinic of the Hospital General of Castellon, Spain, along two consecutive visits. The possible

association of homocysteine serum level with multiple blood analyses parameters and with sociodemographic variables was assessed with a multiple linear regression analysis.

Results: A total of 145 patients were included. Creatinine was higher than normal in 7 patients (5%), prothrombin time was higher than normal in 36 patients (25%), and a monoclonal gammopathy was detected in 2 patients (1%). An association was found between high homocysteine serum level and the following variables: high creatinine (P > 0.001), low folic acid (p > 0.001), HIV risk behavior sexual (vs parenteral) (p = 0.033), hepatitis C virus co-infection (p = 0.014), and high height (p = 0.009). An association was found between low homocysteine serum level and the following variables: high prothrombin time (p = 0.027), and presence of monoclonal gammapathy (p = 0.019).

Conclusions: An association was found between high homocysteine serum level and high creatinine, and between low homocysteine serum level and high prothrombin time and presence of monoclonal gammopathy.

RV-42
ATHEROGENIC DYSLIPIDEMIA IN PATIENTS WITH TYPE 2 DIABETES

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Objectives: Dyslipidemia (DLP) have become a public health issue in all developed countries, due to the high prevalence over 40% in the adult population. More and more research is suggesting that a major factor which determines the residual macrovascular risk is atherogenic dyslipidemia, characterized by a high level of triglycerides (TG) and a low level of HDL-cholesterol. Our study's aim was to determine the prevalence of atherogenic dyslipidemia in patients with type 2 diabetes.

Material and method: We had a study group of 300 patients with type 2 diabetes who were hospitalized at the Clinical and Emergency County Hospital of Oradea, during Jan 2010-Mar 2011. For every patient was made a study sheet in which was noted: sex, age, area of origin, duration diagnosed with diabetes, type of diabetic treatment, family history (metabolic and/or cardiovascular),complications of diabetes mellitus, type of diet and physical activity weight and abdominal circumference, metabolic control, lipid profile (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides), inflammatory status (fibrinogen, C-reactive protein).

Results: In our study group, atherogenic dyslipidemia resulting in a prevalence of 37.3%. The prevalence of atherogenic dyslipidemia was over 1.4 times higher in women than in men (44.6% versus 31.1%) (p < 0.05) and was highest between the ages of 41-60 years (41.7%). The higher the duration of development of diabetes the higher prevalence of atherogenic dyslipidemia (30.4% for those with a duration of development of diabetes < 5 years and 51.8% for those over 10 years). The lowest prevalence of atherogenic dyslipidemia was in patients with ADO + insulin (23.6%) and highest in patients treated with Biguanide + Sulphonylurea (62.2%). The prevalence of atherogenic dyslipidemia increases with the degree of obesity (from 28.1% in normal weight, to 64.3% in obesity grade III). Atherogenic dyslipidemia risk is over 1.5 times higher in obese than in normal weight individuals (RR = 1.54) and nearly 1.4 times higher than in overweight individuals (RR = 1.37). Atherogenic dyslipidemia risk is over 2.5 times greater in diabetics with abdominal obesity than in those without (RR = 2.54).In terms of lipid profile, there are significant difference between patients with and those without atherogenic dyslipidemia (p < 0.001). Inflammatory status; was significantly better in patients without atherogenic dyslipidemia (p < 0.001).Complications of diabetes were present in 106 patients with atherogenic dyslipidemia (94.6%) and 150 patients without atherogenic dyslipidemia (79.8%) (p < 0.05).

Discussion: In Romania DLP are one of the more important factors responsible for the increased frequency of co-morbidities and cardiovascular deaths. The reduced levels of HDL-cholesterol and increased levels of TG are individually associated with increased cardiovascular risk.

Conclusions: 1. Atherogenic dyslipidemia risk is almost two times higher in patients with cardiovascular family history (RR = 1.88). 2. The highest prevalence of atherogenic dyslipidemia is in patients with hyperlipidic and hyper-caloric diet (62.5%) or only hyperlipidic (59.5%). 3. The more intense the physical exercise it, the lower the prevalence of atherogenic dyslipidemia (29.0% forthose with daily exercise versus 68.2% in those without physical activity). 4. Atherogenic dyslipidemia risk is over 1.5 times higher in obese than in normal weight individuals (RR = 1.54) and nearly 1.4 times higher than in overweight individuals (RR = 1.37). 5. Atherogenic dyslipidemia risk is over 2.5 times greater in diabetics abdominal obesity individuals (RR = 2.54). 6. Metabolic control, lipid profile and inflammatory status were better in patients without atherogenic dyslipidemia (p = 0.251, p < 0.001, respectively p < 0.001).

RV-43
OBESITY PREVALENCE WITHIN A LIPIDS UNIT POPULATION SUFFERING FROM HYPERTRIGLYCERIDEMIA

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Objectives: Establishing the undergone prevalence of the obesity in the Spanish population suffering of hypertriglyceridemia is the goal of this study. A sub-analysis was made to study possible differences in the obesity prevalence comparative according to the age.

Material and method: An epidemiologic, prospective, observational, non-controlled study was performed in the Lipids Unit of U.G.H. Gregorio Marañón. Patients were included in the Arteriosclerosis Spanish Society National Hypertriglyceridemia registry during one year. The study set is composed by general Hypertriglyceridemia-diagnosed Spanish population. The Body Mass Index (BMI) was the diagnostic tool used. According to the World Health Organization classification, three ranges are defined given the BMI value: Normal weight (BMI < 25 Kg/m^2), overweight (25-29.9 Kg/m^2) and obesity (BMI > 30 Kg/m^2).

Results: 82 patients were included; the expressed results are rates of the BMI (Kg/m^2): < 25: 13.4% (11 patients), 25-29: 28% (23), and > 30: 58.5% (48). In this sub-analysis, the rates for the BMI ranges per weight status per age are: < 40 years (10, 40, 50), 40-60 years (16, 28, 56) and > 60 years (8.3, 8.3, 83.3).

Discussion: In the general population the estimated obesity prevalence is 13.9%. This high percentage of obesity in our society and the low rate of normal-weight population define an important associated cardiovascular risk and show a significant lineal dependency between age and BMI. It demands the creation of specialized units able to monitor the treatment and evolution of their patients because of a possible causal relationship with the hypertriglyceridemia. Broader studies may be needed.

Conclusions: The estimated obesity prevalence defines an important associated cardiovascular risk and the creation of specialized units.

RV-44
LOW 25-HYDROXI-VITAMIN D LEVELS ARE ASSOCIATED WITH HIGHER MEAN SYSTOLIC BLOOD PRESSURE AND INCREASED BLOOD PRESSURE VARIABILITY IN PATIENTS WITH HYPERTENSION AS MEASURED BY 24-HOUR AMBULATORY BLOOD PRESSURE MONITORING

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Objectives: To assess the relationship between vitamin D (25-OH D) serum levels and blood pressure parameters as determined by 24-hour ambulatory blood-pressure monitoring (ABPM) in patients with hypertension evaluated in a Hypertension-Vascular Risk Unit.

Material and method: We enrolled consecutive patients seen in the Hypertension-Vascular Risk Unit who underwent 24-h ABPM. Plasma vitamin D levels were measured by radioimmunoassay considering vitamin D deficiency if vitamin D concentration was < 15 ng/ml. Serum PTHi concentration was quantified using an electrochemiluminescent procedure. We determined clinic systolic and diastolic blood pressure (SBP and DBP), mean SBP and DBP, pulse pressure, mean BP daytime, nightime and 24h period as determined by ABPM. High SBP variability was considered if standard deviation of mean SBP was > 18%. Association between vitamin D levels, PTHi and blood pressure (BP) parameters were calculated using correlation coefficient with Spearman or Pearson tests as appropriate. U-Mann-Whitney was used to compare different quantitative values according to the presence of vitamin D deficiency.

Results: Forty-eight patients were enrolled in this study (age [mean ± SD] 57.3 yrs ± 15.8; 37.5% female). The prevalence of vitamin D deficiency was 27.1%. No statistically significant association was observed between vitamin D and weight, height, age, body mass index or renal function. However, a statistically significant inverse association was found between vitamin D levels and PTHi (r = -0.325; p = 0.029) clinical SBP (r = -0.368; p = 0.011), mean SBP daytime (r = -0.3; p = 0.039), and SBP variability (r = -0.318; p = 0.028). We have also found statistically significant differences among main BP parameters (expressed in mmHg) in patients who have vitamin D deficiency compared with those of patients without vitamin D deficiency: 24-h mean SBP (136 vs 127, p = 0.014), mean SBP daytime (140 vs 127, p = 0.011), mean DBP daytime (85 vs78, p = 0.026), 24-h mean BP (105 vs 93, p = 0.011), mean BP daytime (108 vs 95, p = 0.007) and mean BP nighttime (92 vs 89, 0.037). There were no significant differences between dipper and non-dipper subjects.

Discussion: It has been reported a potential link between vitamin D and cardiovascular risk through its effects on BP. However, clinical data remains controversial. ABPM has shown a closer relationship with cardiovascular risk compared with that of clinical BP. In our study we have shown a significant inverse association between vitamin D status and an increase in different blood pressure values as assessed by 24-hour ABPM in a series of patients with hypertension. Furthermore, we have found an association between low vitamin D levels and higher SBP variability that in turn has been recently linked to a higher cardiovascular risk. Given the biological effects of PTHi on vascular wall, we hypothesize that an excess of PTHi levels secondary to low vitamin D levels might account for the high SBP variability observed in the subset of patients with vitamin D deficiency. Whether low vitamin D levels have an etiologic role in hypertension remains to be confirmed in ongoing clinical trials searching for the effect of vitamin supplementation on cardiovascular risk.

Conclusions: In our series, low 25-hydroxi-vitamin D levels are associated with higher mean SBP and elevated SBP variability in patients with hypertension as measured by 24-hour ABPM. Our findings might explain the increased cardiovascular risk in patients with vitamin D deficiency.

RV-45
METABOLIC AND INFLAMMATORY MARKERS OF CARDIOVASCULAR RISK IN PATIENTS WITH SLEEP APNOEA SYNDROME

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Objectives: 1) To determine whether there is an association between certain cardiovascular risk markers and the sleep study parameters and anthropometric characteristics of patients with sleep apnoea-hypopnea syndrome (SAS). 2) To determine whether there are significant differences in the magnitude of these markers depending on the severity of the disease.

Material and method: Plasma levels of CRP, triglycerides, HbA1c and uric acid and urine levels of microalbuminuria were measured in 130 patients referred for consultation for suspected SAS. We performed a sleep study (respiratory polygraphy or polysomnography) and recorded the patient's anthropometric measurements. Characteristics: age 53 ± 12 years, 69% males, 31% females, BMI 30.6 ± 5.7 kg/m^2, neck circumference (NC) 42 ± 5 cm, sleep apnoea-hypopnea index (AHI) 33.7 ± 26 h-1, desaturation index (DI) 33.4 ± 27 h-1, mean nocturnal SpO_2 91.3 ± 3%.

Results: The mean values were as follows: CRP 4.1 ± 5.7 mg/L, triglycerides 140 ± 73 mg/dL, HbA1c (NGSP) 5.6 ± 0.5, uric acid 5.7 ± 1.3 and microalbuminuria 7.9 ± 13.5 mg/L. Using a Pearson correlation analysis, we found the following significant correlations: a) Anthropometric measures: CRP with NC (r = 0.21) and BMI r = 0.61). Triglycerides with NC (r = 0.35) and BMI (r = 0.21). HbA1c with BMI (r = 0.18). Uric acid with NC (r = 0.436) and BMI (r = 0.28). b) Sleep parameters: triglycerides with DI (r = 0.20). HbA1c with AHI (r = 0.32) and DI (r = 0.31). Uric acid with AHI (r = 0.26) and DI (r = 0.29). Microalbuminuria with AHI (r = 0.31) and DI (r = 0.30). Using ANOVA and the Bonferroni test, we looked for differences in the magnitude of the values of the markers and the severity of SAS. To accomplish this, we defined three groups: A (AHI < 10), B (AHI 10-30) and C (AHI > 30). We found significant differences between the groups in terms of triglycerides (p < 0.02), HbA1c (p < 0.0001) and uric acid (p < 0.001). There were no differences for CRP and microalbuminuria.

Conclusions: 1) We found that some cardiovascular risk markers were significantly correlated to sleep parameters and anthropometric measures. 2) The values for triglycerides, HbA1c and uric acid increased as the AHI increased.

RV-46
CHARACTERIZATION OF PROTEIN PROFILES RELATED TO DIET AND EXERCISE AS MOLECULAR SIGNATURES OF VASCULAR WELLNESS

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Objectives: 1. Evaluate the combined effect of diet and exercise on the protein profile of healthy individuals. 2. Determine protein

profiles related to diet and exercise as potential signatures of physical wellness. 3. Identify protein variations that promote the beneficial effects of diet and exercise in order to better characterize the molecular mechanisms involved. 4. Compare, in the future, the protein profiles obtained here with those related to cardiovascular disorders.

Material and method: 53 rugby players were enrolled in this study and included in two groups, one following a hyperproteic diet with low glucemic index, and another following a standard Mediterranean diet. Blood and urine samples were collected on day 0 and 6 months later. Plasma was obtained by centrifugation and both, plasma and urine were aliquoted and stored at -80 ºC. Exercise intensity during the 6 month period was also recorded. Protein profiles in both plasma and urine, were analysed using a Surface-Enhanced Laser Desorption and Ionization Time of Flight (SELDI-TOF) mass spectrometer. Strong anion exchange (Q10) affinity array was selected for the study, allowing the detection of a high number of protein peaks. For protein identification, a chromatographic approach using a strong anion exchange column (Uno Q) with the same binding conditions employed in SELDI was carried out, obtaining several fractions that were further separated by SDS-PAGE. Identification by mass spectrometry of differentially expressed proteins is currently in progress.

Results: Interestingly, most of the subjects following the hyperproteic diet (63%) gained weight after the six month period, while the majority of those following the Mediterranean diet didn't show any significant weight changes (57%). SELDI analysis reported differential protein profile between subjects following Mediterranean and hyperproteic diets. In addition, different profiles were observed between same diet individuals that gained or lost weight. Proteins with significant intensity variations (p-value < 0.05) between groups (Mediterranean/hyperproteic, weight changes, moderate/extreme exercise) have been selected for further identification by mass spectrometry.

RV-47
WAIST-TO-HEIGHT RATIO AS AN ANTHROPOMETRIC PREDICTOR OF MICROINFLAMMATION IN HEMODIALYSIS PATIENTS

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Objectives: The aim of our study was to determine possible relationship between waist-to-height ratio (WHtR) and some inflammatory mediators in hemodialysis (HD) patients.

Material and method: 72 HD patients were enrolled in our study (32 women and 40 men, mean age 60 years, ranged from 22 to 81 years). WHtR was calculated by dividing patient's waist circumference by their body height in centimeters. According to the National Health and Nutrition Examination Survey (NHANES) data abdominal obesity was defined as WHtR > 0.5. Inflammatory mediators (interleukin 2 receptor (IL-2R), interleukins 6, 8, 10 (IL-6, IL-8, IL-10), vascular cellular adhesion molecule-1 (VCAM-1), intercellular adhesion molecule-1 (ICAM-1), tumor necrosis factor-alpha (TNF-alpha)) were measured by standard laboratory methods.

Results: Mean overall WHtR value was 0.58 (range 0.42-0.84), for men 0.57 (range 0.42-0.78) and for women 0.59 (range 0.45-0.84). Abdominal obesity was found in 75% of enrolled patients (78% of women; 72.5% of men). WHtR values correlated with IL-6 ($p < 0.046$) and IL-10 ($p < 0.006$). With multiple regression analysis relationship between WHtR and IL-10 ($p = 0.009$) was found, in men an additional relationship between WHtR and IL-6 ($p = 0.025$) was found.

Discussion: Various anthropometric surface measures are used to access obesity in general population, but less is known about the role of WHtR in HD patients. Abdominal adipose tissue has important inflammatory properties and is a source of various inflammatory mediators. According to the fact that concentrations of some inflammatory mediators are higher among HD patients than in the general population, abdominal obesity may play an important role in the pathogenesis of microinflammation which is known to be accelerated in HD patients.

Conclusions: The results of our study indicate that abdominal obesity defined with WHtR is associated with microinflammation in HD patients.

RV-49
VASCULAR RISK AGE FROM FRAMINGHAM HEART STUDY DOES NOT NEED TO BE CALIBRATED

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Objectives: Absolute cardiovascular risk equations need to be calibrated if they are going to be used in other populations than original. SCORE project proposed two different models for high and low risk countries. Framingham derived equations have been calibrated to different countries. Vascular/heart age is a new concept on patient management and was described originally from General Cardiovascular Risk Profile obtained from Framingham Heart Study. The objective of this study is to explore the need to calibrate vascular age to different populations.

Material and method: The equation from General Cardiovascular Risk Profile was obtained from previous publication. This equation calculates the probability of a mortal or non mortal cardiovascular event in the next 10 years based on sex, age, systolic blood pressure, treatment for hypertension, total cholesterol, HDL-cholesterol, smoking and diabetes. The mathematical model of the equation is proportional risk model (Cox model). The model has different coefficients for each variable and takes into account the prevalence of each cardiovascular risk factor and survival. To calibrate the equation to a different population, prevalence and survival data must be changed according to the different population. Vascular age of a patient is the age of a hypothetical patient with the same absolute risk but with all cardiovascular risk factors in normal range. If risks of both patients (real and hypothetical) are the same we can obtain an equality of two expressions where population data are withdrawn, and vascular age depends only on risk factor data.

Results: We obtained an equation where vascular age depends on risk factors data and not on population data. We can solve the equation with patient data, which are independent of population data, and with risk factor levels considered as normal. If population data are not necessary to calculate vascular age, then vascular age is independent of population data, so vascular age does not need to be calibrated. Also we can construct a figure where age and absolute risk are related to vascular age. For example, a 40 years old man with absolute cardiovascular risk of 12.5% has a vascular age of 60 years.

Discussion: The main result of this investigation is very important and practical. There are a lot of publications about calibration of absolute risk equations, but vascular age is a new universal concept that does not need calibration. Vascular age is dependent on personal data and normal risk factor levels. Discussion is not centered on calibration but on assessment of normal levels. Vascular age is a new epidemiological concept that has been adopted in the last "European Guidelines on cardiovascular disease prevention in clinical practice (version 2012)". Now we have demonstrated that vascular age does not need calibration, making easier their use.

Conclusions: Vascular age is a universal concept that does not need to calibrate.

RV-50
SLEEP APNEA IN DIABETIC POPULATION

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Objectives: The sleep apnea was considered by the International Diabetes Federation (IDF) one of the chronic complications of type 2 diabetes mellitus, but the prevalence and impact of this condition in diabetic population isn´t well defined. We aim to study the prevalence of sleep apnea in a diabetic population, identify the main characteristics of this patients and their impact in patient's life.

Material and method: Transversal analytic study with a prospective data collection. Were included patients with type 2 diabetes followed in our Outpatient Department, with age between 20 and 70 years. Were collected demographic data, history of disease and co-morbidity of diabetes mellitus. Were applied various tools like Epworth, Berlin and Stanford Questionnaires and all patients were submitted to spirometry and sleep apnea prove.

Results: There were included 203 patients in this study. The average age was 60 years and 10 months, 50.3% were males and this population had an average length of 23 years of diabetes. The co-morbidity studied, hypertension was present in 78.9%, dyslipidemia in 51.7% and 5.9% had previous pulmonary disease (pulmonary obstructive chronic disease or asthma). The average glycated hemoglobin was 7.8%, the body mass index was 29.4 kg/m^2 and the Abdominal Perimeter 104.2 cm. The complications of diabetes were also present and the most prevalent were diabetic neuropathy (27.6%) and diabetic retinopathy (27.1%). Of all, 21 patients had to be excluded of the study because their results were not completed clear. The final results show that 14% had a sleep apnea in high degree, 13% had sleep apnea in moderate degree and 35% had sleep apnea in low degree (total of 62%).

Discussion: The results showed a important prevalence of sleep apnea (62% in total) in this diabetic population, and only 5.9% had previous pulmonary disease diagnosed. The metabolic control was reasonable with glycated hemoglobin of 7.8% and 73.56% had total cholesterol below 200 mg/dL. The other complications related with diabetes mellitus were much better diagnosed and treated that sleep apnea.

Conclusions: The prevalence of sleep apnea in diabetic population appears to be more important that was supposed to be. Unfortunately this tends to be sub-diagnosed in the diabetic patient. The doctor should be alert for this reality and the early diagnosis can allow the adequate and attempted intervention.

RV-51
CERVICAL-ARTERY DISSECTIONS: CLINICAL CHARACTERISTICS, DIAGNOSIS AND PROGNOSIS

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Objectives: Cervical-artery dissections are a frequent reason of cerebral ischemia in young adults, that can appear with a wide spectrum of clinical manifestations, from migraine or cervical pain to fatal ictus. This association has been suggested by diverse risk factors. The incidence is probably underestimated, due to the difficulty establishing the image diagnosis and the lack of clinical suspicion. Prognosis is in general good. To describe the clinical, diagnostic and pronostic characteristics of patients admitted with the diagnosis of cervical-artery dissections (carotidea and vertebral), in the last 5 years, in our sanitary area.

Material and method: We retrospectively collected the clinical information of patients safety from cervical-artery dissections in the Architect Marcide Hospital, from January 2008 to December 2011.

Results: Nine patients were included; mean age was 41 years (range 28-59), 5 males (55.6%). One case appeared after cervical maneuver. Another case presented as Horner's syndrome with cerebral ischemia image. 88.9% of patients had cerebral ischemia signs (CT and/or MR). 62% occurred on MCA territory, and 38% like dizziness syndrome with hemihypoestesia. Subarachnoid hemorrhage cases did not appeared. Predisposing factors were migraine (one case), connective disease (one case) and oral contraception (75% of women). The most used neuroimagen technique was MR angiography (55.6%) and sonography (44%). Dissection location in order of frequency was right-ICA (44%), VA (22%) and left-ICA (22%). 88.9% of patients received anticoagulation during a minimum of 6 months, followed by antiaggregation. In one case a stent was placed. Image control was done in 6 cases, between 3 and 12 months after the event, detecting partial recanalation in 40% of cases. The functional outcomes were satisfactory (Rankin ≤ 1 in 70%), exitus was not collected and one case suffered early recurrence.

Conclusions: Cervical-artery dissections were more frequent in middle age males, as described in other series. MR-angiography was the most used technical vascular image. Medical treatment (anticoagulation) and prognosis were similar other published cases on reviewed literature.

RV-52
AGE, GENDER, CENTRAL BLOOD PRESSURE AND SMOKING AS MAIN DETERMINANT FACTORS OF AUGMENTATION INDEX EVALUATED BY PULSE WAVE ANALYSIS

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Objectives: 1. To evaluate the contribution of a series of cardiovascular risk factors to the arterial stiffness measured by the Augmentation Index (AIx).

Material and method: N = 118 patients with moderate-high cardiovascular risk. Type 1 diabetes and latent autoimmune diabetes in adults were excluded. Age: 59.2 (12.9) years. 71 males (60.2%). Hypertensive: n = 87 (73.7%). Hyperglycemia: n = 81 (68.6%). Type 2 diabetes: n = 46 (39%). Smokers: n = 31 (26.3%). (Former smokers were considered as non-smokers after 1 year). Metabolic Syndrome: ATP-III-2005 criteria. Pulse wave analysis by SphygmoCor (AtCor Medical). AIx was adjusted to a standard heart rate of 75 bpm at an inverse rate of 4.8% for each 10 bpm increment. Triglycerides, total cholesterol, HDL-C, LDL-C and uric acid (mg/dl): HITACHI. LDL-C by Friedewald formula if TG < 400. High-sensitivity C-reactive protein (hs-CRP, mg/L): nephelometric. Statistical analysis: mean (standard deviation); Pearson's correlation coefficient (r). Multivariate linear regression models (B: non-standardized coefficient; Bs: standardized coefficient; R^2: model coefficient of determination), backwards method. SPSS v15.0.

Results: 1. As expected, a strong linear correlation between AIx and age in both, males and females, was found. Males: r = 0.628;

p < 0.001; females: r = 0.576; p < 0.001. 2. Female sex was associated to higher AIx for the whole age range: B = 6.74; p < 0.001; R2 = 0.443. 3. Association between AIx and smoking status remains significant after adjustment by sex and age (B = 3.93; p = 0.030; R^2 = 0.468). 4. After adjustment by sex and age, peripheral diastolic blood pressure (B = 0.227; p = 0.041. R^2 = 0.465), central systolic blood pressure (B = 0.133; p = 0.029. R^2 = 0.468), central diastolic blood pressure (B = 0.252; p = 0.022. R^2 = 0.471) contributed to a significant increment of AIx, unlike chronic hyperglycemia, Metabolic Syndrome, hypertensive status, peripheral systolic blood pressure, waist circumference or hs-CRP. 6- Age (B = 0.252; Bs = 0.619; p < 0.001), female sex (B = 6.587; Bs = 0.299; p < 0.001), central diastolic blood pressure (B = 0.271; Bs = 0.181; p = 0.012) and smoking (B = 4.265; Bs = 0.174; p = 0.016) remained as significant predictors of AIx when all the above proposed covariates were included in a multivariate regression model (R^2 = 0.500).

Discussion: Arterial stiffness seems to be a prognostic and independent biomarker of cardiovascular risk. SPHYGMOCOR is a new non-invasive tool to evaluate the arterial stiffness. The analysis of the central pulse wave morphology (carotid artery), estimated from the radial artery, provides a number of central cardiovascular parameters, one of the most important is AIx, an indirect measure of the arterial stiffness. The increase of the above mentioned stiffness is the result of a series of structural and functional changes that happen in the arterial wall in relation to the process of aging, but whose speed could be modified both for both genetic aspects and cardiovascular risk factors.

Conclusions: 1. Age was the main determinant factor of AIx. By gender, females showed higher values. 2. Aging, female sex, smoking and higher central blood pressure were independent predictors of higher AIx. 3. Our study provides a better understanding of the factors contributing to accelerate the stiffening process.

RV-53
NEEDING A LARGER BELT. SPANISH MALES CARRIERS OF THE FTO (FAT MASS AND OBESITY ASSOCIATED) RISK ALLELE HAVE HIGHER WAIST CIRCUMFERENCE, THE PRELUDE OF CARDIOMETABOLIC DISEASE

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Objectives: To evaluate the influence of FTO rs9939609 genotypes in FTO obesity, metabolic syndrome (MS) and diabetes mellitus (DM2).

Material and method: N = 155 patients of 50 years or older with type 2 diabetes and/or at least one classic cardiovascular risk factor. BMI (body mass index): kg/m2.Waist: cm, weight: kg. MS criteria of ATP III 2005. DM2 according to Standards of Medical Care in Diabetes (ADA) 2012. Genotyping of rs9939609 was carried out using TaqMan SNP Genotyping Assays (Applied Biosystems). Statistical analyses were performed using SPSS version software 15.0. Continuous variables described by mean ± standard deviation. Two-tailed p < 0.05 was considered significant. Chi-square test to evaluate the Hardy-Weinberg equilibrium. A Descriptive study, adjusted for age and sex, was performed by contingency table where association was evaluated by chi-square tests. Comparison of means according to the number of alleles: ANOVA with post hoc Tukey contrast or Kruskal–Wallis as appropriate.

Results: 1. The 18% of patients had two risk alleles (AA), 47% had only one risk allele (AT) and 35% did not have the risk allele (TT). Allele frequencies in this population did not deviate from Hardy-Weinberg equilibrium (p = 0.147). 2. Among subjects with DM2 no statistically significant association was found. 3. Associatiion between MS and risk allele presented borderline significance (p = 0.08). 4. In male subjects (N = 115), higher values of BMI, waist and weight were significantly associated to a greater number of risk alleles. For BMI the AA: 30.4 ± 4.4, the AT 28.1 ± 4.1 and those with no risk allele (TT) 27.1 ± 3.8 kg/m^2 with p = 0.026. With regard to waist circumference, AA: 105.8 ± 13.3; AT: 98.3 ± 9.2, TT 96.3 ± 8.7 cm, p = 0.007. Significant differences were observed between TT and AA (p = 0.005) and between AT and AA (p = 0.027). Differences in weight reached borderline significance: (p = 0.06), although post hoc contrast showed significant differences between AA and TT (p = 0.027) and between AA and AT (p = 0.049). 5. In women (N = 40) similar trends were observed for BMI, waist circumference and weight, although no significant differences were found.

Discussion: In a world of contrasts, epidemics of the XXI century are starvation and cardiometabolic diseases. Both have deep sociopolitical roots of opposite sign: the first linked to abandonment or negligence; the other linked to progress. Due to the latter, the waist circumference of the subjects continues growing. The knowledge of the genetic determinants of this waist growth should become an obligation of scientists but also of governments. The control of these epidemics, demands a combined struggle of both politicians and health professionals. Since 2007, in a study of GWAS, Frayling and colleagues found a strong association between the FTO gene (read "fatso") and human obesity, the SNP rs9939609 in the first intron of this gene has been linked to BMI in various populations. It has also been associated with DM2 and MS.Our results agree with reports about the association between the FTO gene and obesity.

Conclusions: 1. BMI and waist circumference seem genetically determined and at least in men FTO gene plays a small role, but clinically relevant. 2. Our study should encourage social organizations to design genetic studies with a much larger sample to measure what is the genetic (non-modifiable) impact and what is the environmental (modifiable) one in this costly epidemic that "invades" our society with obesity, MS and DM2, including many of us.

RV-54
DO WE KNOW THE REAL PREVALENCE OF LOW-LDL-CHOLESTEROL IN DIABETIC PATIENTS WITHOUT LIPID-LOWERING THERAPY? HOW MANY OF THESE PATIENTS SHOULD TAKE STATINS ACCORDING TO STANDARDS OF MEDICAL CARE IN DIABETES?

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Objectives: 1. To count up how many of our type-2 diabetic patients with no statins have constitutive low-LDL-C levels. 2. To count up how many of these low-LDL-C patients have at least one statin treatment criterium according to the Standards of Medical Care in Diabetes-2012.

Material and method: N: 126 DM2 patients under no lipid-lowering drugs were included. Males = 86, 59.5 years old ± 10.8 (36-88); 6.1 yr duration of disease ± 7.4 (1-35); BMI (body mass index): 28.3 ± 4.2 (20-43.6). Females = 40: 66.7 years ± 11.2 (45-95); 10.2 yrs duration of disease ± 8.4 (1-30); BMI: 31.4 +- 5.8 (22-57.9). A lipid profile was carried out including total-cholesterol, HDL-cholesterol and triglycerides, measured by Hitachi autoanalyzer. LDL-cholesterol (LDL-C) was calculated in subjects with TGs < 400 mg/dl using the Friedewald equation. HbA1c (DCCT) in %. Statin therapy criteria to type 2 DM patients: according to the ADA Standards of Medical Care in Diabetes-2012: Statin therapy should be added regardless of baseline lipid levels, for diabetic

patients: a) with overt CVD; LDL-C target: < 70 mg/dl (< 1.82 mmol/L), b) without CVD who are over age 40 years and have one or more other CV risks factors. Statistical analysis: Mean ± SD. alfa = 0.05. Chi-square test for the comparison of two proportions.

Results: 1. N = 25 (19.8%) of total population had low-LDL. 2. In males: 18.6% had LDL < 100 mg/dl (< 2.6 mmol/L); 16.6% of patients had LDL-C > 160 mg/Dl (4.1 mmol/L); 64.8% between 100-160 mg/dl (2.6-4.1 mmol/L). In 5.8% high-LDL-C was associated with high-TGs (> 150 mg/dl) (> 1.7 mmol/L) (mixed dyslipidemia) 3.5% had high-LDL with low-HDL. 2.3% had mixed dyslipidemia and low-HDL (< 40 mg/dl) (< 1 mmol/L). 3. In females: 22.5% had LDL < 100 mg/dl (< 2.6 mmol/L); 20.0% of patients had LDL-C > 160 mg/Dl (4.1 mmol/L); 57.5% between 100-160 mg/dl (2.6-4.1 mmol/L). In 2.5% high-LDL-C was associated with high-TGs (mixed dyslipidemia) 5.0% had high-LDL with low-HDL. 2.5% had mixed dyslipidemia and low-HDL (< 50 mg/dl in females) (< 1.3 mmol/L). 4. The prevalence of low-LDL-C levels was slightly higher in women than men but this difference did not achieve statistical significance. 5. Statin therapy criteria were applied according the Standards of Medical Care in Diabetes-2012 with the following results: 76% complies with the criteria for statins according to age ≥ 40 yrs + ≥ 1 CV Risk Factor; 20% had CVD (LDL-C-target < 70 mg/dl (< 1.82 mmol/L); only 4% did not meet any of these criteria.

Discussion: The LDL-C target in type 2 diabetic patients without coronary disease is 100 mg/dl (< 2.6 mmol/L) but a number of these patients have these levels before beginning the statin therapy raising doubts about the need of this therapy. In USA, a mutation of LDL-r (PCSK9) can be responsible of this "advantageous anomaly" in black people. But how many patients have constitutively these low levels in Spain? And how should we act according to the ADA Standards of Medical Care in Diabetes-2012?

Conclusions: 1. In a Spanish population, one out of five type 2 diabetic patients has constitutively low-LDL-C levels. The prevalence of low-LDL-C levels was slightly higher in women, although this difference was not statistically significant. 2. After applying the statin treatment criteria according to the Standards of Medical Care in Diabetes-2012 only one out of 25 (4%) did not meet any criteria. A take-home message in type-2 diabetic patients: "statins for everybody".

RV-55
SPORTS ACTIVITY IN THE YOUTH AND CARDIOVASCULAR HEALTH IN THE MIDDLE AGE

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Objectives: Little is known about influence of long-term exercise training in the youth on cardio-respiratory system in the middle age.

Material and method: 24 moderately physically active males 32-82 yrs (mean (M ± m) 53.2 ± 2.7 yrs) and 16 females 31-73 (51.3 ± 3.5) yrs with > 10 yrs vigorous exercise training were included in the past athletes (A) group, 41 males (55.7+/-1.9 yrs) and 35 females (56.3 ± 2.0 yrs) with mild arterial hypertension were studied as controls (C). Ambulatory 24h monitoring of ECG, BP and respiration (Cardiotehnika, Incart, Russia) was conducted in all patients.

Results: A reported less symptoms (palpitation, dizziness). Males-A had lower body mass index (BMI, 27.3 ± 0.7 and 28.8 ± 0.6 kg/m^2, p = 0.04), lower heart rate (HR) at day and night (72.7 and 78.3; 56.6 and 61.4), more frequent transient II degree AV- block (16.7 and 2.4%), transient long QT interval (25.0 and 7.3%), premature ventricular contractions > 50/24 h (50.0 and 31.7%), episodes of supraventricular tachycardia (41.1 and 22.2%) and couplet supraventricular beats (66.6 and 48.8%). BMI in the females did not differ (26.7 ± 1.3 and 28.6 ± 0.8 kg/m^2). Only early repolarization syndrome in the night-time in females-A was seen more often (25.0 and 2.8%, p = 0.03). No significant between-groups difference was detected in the incidence of multiple premature ventricular contractions (62.5 and 47.7%), but number of polymorphous premature ventricular contractions (25.0 and 8.7%) and repetitive premature ventricular contractions had tendency to be greater in the A. No difference was found in the incidence of the II degree AV-block (6.2 vs 5.7%), supraventricular tachycardia (18.8 vs 14.3%) and transient long QT interval (18.8 vs 14.3%).Power spectral analysis of heart rate variability revealed that power of all spectral bands (VLF, LF and HF) both in the day and night in females-A and power of VLF band in the day-time in males-A was significantly greater than in C. Systolic BP in the females-A was 123.9 vs 129.3 mmHg in C in the day and 118.4 vs 114.1 mmHg in the night, diastolic BP in the day – 75.8 vs 75.6 mmHg. while diastolic BP in the night in females-A was lower (62.6 ± 1.8 vs 68.8 ± 1.8 mmHg, p = 0.05). No difference in the systolic BP in the day and night (131.2 vs 134.1 mmHg in the day and 121.5 vs 122.0 mmHg in the night) and diastolic BP (76.1 vs 79.1 mmHg in the day and 67.0 vs 70.4 mmHg in the night) between male groups was found. Past A demonstrated more regular breathing during sleep (apnoea/hypopnoea index 9.4 and 15.3 in males and 5.3 and 7.6 in females, p < 0.05).

Discussion: Despite the greater prevalence of complex or polymorphous premature ventricular contractions in A, the age related decrease in heart rate variability seems to be retarded, which has a positive prognostic value and may decrease the risk of life threatening ventricular arrhythmias.

Conclusions: Sports activity in the youth has positive influence on the cardio-respiratory system in the middle-ages patients: both males and females past athletes had greater heart rate variability that may preserve from life threatening events, more regular breathing during sleep and females – lower diastolic BP at night.

RV-56
INFLUENCE OF MEAN HBA1C LEVELS ON OUTCOME IN STABLE DIABETIC OUTPATIENTS WITH CORONARY, CEREBROVASCULAR OR PERIPHERAL ARTERY DISEASE

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Objectives: There is some controversy over the influence of glucose control on the risk for cardiovascular events in patients with type-2 diabetes. The aim of the current study was to compare the incidence of subsequent ischemic events (myocardial infarction, ischemic stroke or limb amputation) and death in stable outpatients with type-2 diabetes, after classifying them into quintiles of mean HbA1c levels during follow-up.

Material and method: FRENA is an ongoing registry of stable outpatients with symptomatic coronary (CAD), cerebrovascular (CVD) or peripheral artery disease (PAD). We compared the incidence of the composite outcome of subsequent myocardial infarction (MI), ischemic stroke, limb amputation or death in patients with type 2-diabetes according to quintiles of mean glycated hemoglobin (HbA1c) levels.

Results: As of November 2011, 1294 patients with type 2-diabetes were recruited. Of these, 415 presented with CAD, 356 with CVD and 523 with PAD. Over a mean follow-up of 13 months, 42 patients

(3.2%) suffered subsequent MI, 29 (2.2%) had ischemic stroke, 30 (2.3%) underwent limb amputation, and 66 (5.1%) died. The incidence of the composite outcome progressively increased, from 4.84 events per 100 patient-years (95%CI: 2.92-7.60) in patients with HbA1c levels in the first quintile to 11.4 events (95%CI: 7.89-16.0) in those in the fifth quintile. This worse outcome was mostly due to an increased incidence of subsequent MI, which increased from 0.84 events (95%CI: 0.21-2.28) to 3.20 (95%CI: 1.56-5.87). On multivariate analysis, the risk for the composite outcome progressively increased with HbA1c levels, from 1 (reference) to 1.72 (95%CI: 0.91-3.27), but with no significant differences among groups.

Discussion: Our data, obtained from a prospective series of consecutive stable outpatients with type-2 diabetes and CAD, CVD or PAD, suggest that the risk to suffer subsequent ischemic events or dying progressively increases with increasing levels of HbA1c. Among all such events, the risk to suffer subsequent MI seems to be particularly high, since patients with mean HbA1c levels in the two highest quintiles had a 4-fold higher incidence of subsequent MI than those in the first quintile. One in every 4 patients with subsequent MI died of the event. Thus, its clinical impact is considerable. The risk for subsequent stroke, limb amputation or death also increased with increasing HbA1c levels, but less evident. This worse outcome in patients with HbA1c levels in the highest quintiles persisted on multivariate analysis (although not reaching significant differences) after considering potential confounders such as the affected vascular bed, underlying diseases and pharmacologic therapies. Our data failed to confirm the existence of either a U-shaped association or an inverse correlation between HbA1c levels and all-cause mortality, as suggested in two recent studies.

Conclusions: In stable outpatients with CAD, CVD or PAD the incidence of subsequent ischemic events or death progressively increased with mean levels of HbA1c.

RV-57
CARDIOVASCULAR RISK PROFILE IN ADULTS WITH DOWN SYNDROME

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Objectives: Major vascular events are practically absent in adults with Down syndrome (DS), which have been proposed as an "atheroma-free model". However, the cardiovascular risk profile in this population is unknown. We aim to 1) compare the distribution of classic cardiovascular risk factors in a group of adults with DS and a non-trisomic cohort, and 2) to subsequently stratify both populations' vascular risk according to the Framingham score.

Material and method: Cross-sectional study of 56 patients (28 adults with DS and 28 control subjects), recruited at the Adult Down Syndrome Unit of the Hospital Universitario La Princesa, Madrid, Spain between January and May 2012. Control were matched by age, gender and race. Epidemiological, anthropometric, clinical, and analytical variables were measured, and compared between both populations.

Results: We recruited 28 subjects with DS and 28 control subjects matched by age and gender, who were 40 ± 10.7 vs 43 ± 12.6 years old (p non-significant). Fourteen subjects in the DS group (50%) and 10 of the controls (36%) were males (p non-significant). Adults with DS had a significantly lower blood pressure than controls (114/71 ± 13/10 mmHg vs 130/80 ± 12/8 mmHg; $p < 0.001$). No DS adult had a diagnosis of arterial hypertension vs 3 (11%) of controls (p non-significant). Six subjects in the control group (28%) were found hypertensive in a single, casual office blood pressure (BP) measure vs 0 adults with DS ($p < 0.01$). Eleven (39%) DS adults met ATPIII criteria of dyslipidaemia vs 5 (18%) controls (p non-significant), but we found no differences in total cholesterol (204 mg/dl in two populations), triglycerides (104 mg/dl in DS individual and 102 mg/dl in control group), or cholesterol fractions' levels (HDL 60 mg/dl vs 62.8 mg/dl and LDL 122.6 mg/dl vs 121.5 mg/dl) between populations. Three (10.7%) adults with DS and 2 (11.7%) controls met ATPIII criteria of metabolic syndrome. Obesity was more prevalent among adults with DS (12/28 [43%] vs 5/28 [18%]; $p < 0.05$), who also presented a higher body mass index (29.8 ± 4.8 vs 25.8 ± 3.7 kg/m^2; $p < 0.001$). However, we found no significant differences in waist perimeter (95 ± 12.6 vs 92 ± 10.8 cm), prevalence of abdominal obesity (12/26 [46%] vs 13/27 [48%]) or in body fat percentages (28.4% vs 30%). No DS adults smoked vs 6 (21%) of controls ($p < 0.05$). All adults with DS (N = 26) were stratified as low-risk patients according to the Framingham Score (mean 2.1% ± 2.3), and none as moderate-vascular-risk subjects. In the control group, 16 subjects (94%) were classed as low-risk (mean 3.2% ± 3.7), and 1 (6%) as moderate-risk patients (p non-significant).

Discussion: Adults with DS have a substantially lower BP than controls. Although a higher number of DS adults had dyslipidemia or were obese, the prevalence of metabolic syndrome was similar in both populations. Smoking was a risk factor found only in controls. The Framingham Risk Score classed similarly both populations, underscoring the non-inferiority of the vascular risk phenotype of adults with DS.

Conclusions: The prevalence of several classic vascular risk factors in adults with DS is different than in the general population. However, this profile confers a similar cardiovascular risk according to the Framingham Score model.

RV-58
SHOULD ANTIPHOSPHOLIPID SYNDROME BE CONSIDERED A MAJOR CARDIOVASCULAR RISK FACTOR?

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Objectives: Cardiovascular risk assessment scores value mostly metabolic and cardiovascular diseases such as dyslipidaemia and hypertension. Diabetes has been increasingly recognized as a major risk factor and additions such as smoking are also considered. However, despite the known association between Antiphospholipid Syndrome (APS) and cardiovascular manifestations, this condition is not beheld as an import cardiovascular risk factor. Our objective was to evaluate the relation between cardiovascular risk assessment by widely used scores and the evidence of cardiovascular disease in patients with APS.

Material and method: Retrospective study of 12 patients with APS. Cardiovascular risk was assessed using the Framingham Coronary Heart Disease Risk Score (F-SCORE) and the European Society of Cardiology Score for estimation of ten-year risk of fatal cardiovascular disease (E-SCORE). The evidence of cardiovascular disease was evaluated by the amount of ischemic events suffered by each patient and the number of hospitalizations for cardiovascular reasons.

Results: Nine patients (75%) were women and 3 were men. The average age was 42 years, ranging from 19 to 66 years old. Mean time from diagnosis was 2.5 years, extending from 7 years to 1 month. APS was secondary to systemic lupus erythematous in 7 patients (58.3%). The defining clinical criterion was a thrombotic event in 10 patients (stroke – 5 patients (41.7%); deep venous thrombosis – 3 patients (25%); thrombotic acute intestinal ischemia – 1 patient (8.3%) and renal vein thrombosis – 1 patient); in the remaining 2 patients the diagnosis of APS followed recurrent fetal

loss. Anticardiolipin and anti-B2-glycoprotein I antibodies were the most commonly detected (8 patients each – 66.7%) and lupus anticoagulant was isolated in 6 patients (50%). Three patients (25%) were positive for the 3 antibodies, 8 patients (66.7%) were positive for 2 antibodies and 1 patient was positive a single antibody. Cardiovascular risk evaluation using the F-SCORE was: 5 patients (41.7%) < 1%; 1 patient (8.3%) 1%; 1 patient 1.5%; 1 patient 4%; 1 patient 5%; 1 patient 6%; 1 patient 7% and 1 patient 19%. Cardiovascular risk evaluation with the E-SCORE was: 6 patients (50%) < 1%; 2 patients (16.7%) 1%; 2 patients ≥ 1.5%; 1 patient (8.3%) 6% and 1 patient 15%. Six patients (50%) were hospitalized once because of a major thrombotic event and 1 patient (8.3%) was hospitalized in two separate occasions for cardiovascular reasons. The prevalence of traditional cardiovascular risk factors was: 8 patients (66.7%) were hypertensive, 6 patients (50%) suffered from dyslipidaemia, 2 patients (16.7%) were obese, and 1 patient was diabetic.

Discussion: There is a clear discrepancy between cardiovascular risk assessment by both scores (75% of patients with a risk ≥ 5% by the F-SCORE and 83.3% with a risk ≥1.5% by the E-SCORE) and the evidence of cardiovascular disease (83.3% of patients suffered a major thrombotic event and 58.3% of patients were hospitalized at least one time for the same reason). The fact that the association between APS and an increased incidence of myocardial infarction remains controversial (in fact, none of the patients suffered a coronary event) may largely justify the divergence. The low mean age with a low prevalence of traditional cardiovascular risk factors is probably another reason for this disagreement. However, the association of APS with atherosclerosis of both peripheral and coronary arteries, accelerated atherosclerosis and a wide range of cardiovascular manifestations has been established and none of these scores appears to have sensitivity to detect it.

Conclusions: We propose that APS patients are high-risk patients for cardiovascular disease, that all traditional risk factors should be treated aggressively and that more studies should be conducted in these patients to find a more sensitive cardiovascular risk assessment score for clinical practice.

RV-59
INSULIN ADMINISTRATION TO PATIENTS WITH THE METABOLIC SYNDROME. RESULTS WITH INSULIN GLARGINE AT 12 MONTHS

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Objectives: Insulin initiation is a relevant decision that may be difficult to implement due to weight gain. We have examined the efficacy and safety of an insulinization program, leaded by nurse practitioners, with insulin glargine and life style modifications.

Material and method: Unicentric study promoted by the investigators. From the general archives of the Unit (January, 2287 patients) we selected patients with the metabolic syndrome (ATP III criteria) and HbA1c > 7.5% at least on two occasions with a > 3 month interval, and who were taking at least one oral antidiabetic drug (OAD) for > 6 months. Therapeutic objectives were those established by the American Diabetes Association in 2011. Initial mean insulin glargine doses were 0.2 units/Kg weight (single morning dose), and OAD were maintained stable. Periodic visits were scheduled to revise life style modifications agreeded with each patient and pharmacologic therapy.

Results: We included 30 patients (mean age, 65 years [range, 41 to 83 years]; men, 22) with a mean BMI of 31.2 Kg/m^2. The mean time since diabetes diagnosis was 132 months. The mean number of metabolic syndrome criteria was 3.2 and the mean OAD 1.8/day. The insulin glargine initial mean dose increased from 20 units/day to 31units/day at 12 months ($p < 0.001$). Mean weight diminished at 12 months from a baseline of 86.2 Kg to 84.0 Kg (mean reduction, -2.2 Kg). Mean glucose and HbA1c concentrations decreased from 205 to 134 mg/dL ($p < 0.001$) and from 9.3% to 7.2% ($p = 0.004$), respectively. Mean systolic and diastolic blood pressures were unmodified (137/78 mmHg, in both situations). Mean triglycerides concentration decreased (baseline, 214 mg/dL; 12 months, 172 mg/dL) and c-HDL increased (basaline, 41 mg/dL; 12 months, 46 mg/dL), being c-LDL concentrations stable (basaline, 98 mg/dL; 12 months, 97 mg/dL). No hypoglycemic episodes that required someone´s help were reported.

Conclusions: In patients with the metabolic syndrome and type 2 diabetes mellitus insulin glargine, in the context of a lifestyle modification program developed by nurses, was accompanied by a substantial weight reduction at 12 months and glucose and lipid metabolism improvements.

RV-60
INTERMEDIATE PHENOTYPES IN CARDIOVASCULAR RISKS ASSOCIATED WITH FOOD PREFERENCES AND BITTER TASTE

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Objectives: Diet is one of the pillars of overweight treatment and metabolic syndrome. The discrimination of different flavors strongly determines food preferences and thus these preferences might determine food selection. Genetic variation in sensitivity to PTC and PROP, is the most- studied bitter-taste phenotype in humans. The aim of the study was to evaluate the relationship between food preferences and bitter taste perception in food consumption and its association with intermediate phenotypes in cardiovascular risk.

Material and method: A cross-sectional study of the general adult population, both sexes, in the Valencia community. A food preference questionnaire with a quantitative scale of 0 = displeasure, 1 = slight liking, 2 = moderate liking and 3 = favorite taste was applied. Perception to bitter taste was evaluated by means suprathreshold concentrations of 6-n-propylthiouracil (PROP), tasters can be further classified as follows: (NT) nontaster, (MT) moderate taster and (ST) supertaster.

Results: Three hundred and thirty two subjects (332) were included: 124 males and 208 females, with an average age of 39 ± 11. Food preferences were positively correlated to food consumption in both sexes. It was found that those who prefer red meat have a higher cardiac frequency (78 ± 12 vs 69 ± 12, $p = 0.001$) and a higher percentage (%) of body fat (31 ± 8 vs 24.7 ± 11, $p = 0.006$) than those who totally dislike it. Meanwhile, those who prefer the taste of vegetables (green beans, artichoke, spinach, chard,) weigh less (70.8 ± 15 vs 78.3 ± 17, $p = 0.016$); have a body mass index of (BMI) (25 ± 5 vs 28 ± 5, $p = 0.010$), smaller waist circumference (WC) (88 ± 12 vs 96 ± 15, $p = 0.008$), lower waist-height index (WHI) (.52 ± .07 vs.57 ± .09, $p = 0.005$) and lower systolic blood pressure (SBP) (122 ± 15 vs 128 ± 17, $p = 0.024$) than those who dislike them completely.

Discussion: Consumption of these vegetables was associated with the PROP's taster status, STs with a significantly higher consumption in comparison with the NTs. Red meat consumption was not associated with the PROP's perception status of bitter taste. The literature referring to the relationship between the taster's PROP

status and vegetable consumption is controversial. These results confirm a positive association between being ST to PROP and the higher consumption of vegetable in the adult population of Valencia.

Conclusions: Food preferences are correlated to both sexes consumption; those who totally dislike vegetables have a higher weight, a higher BMI, WC and WHI in comparison to those who have them as favorite taste. Being ST for PROP is associated with a higher vegetable consumption.

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RV-62
HDL-CHOLESTEROL AS A SENTRY ANTIOXIDATIVE PROTECTOR AGAINST SECONDARY MYELOPEROXIDASE TISSUE DAMAGE

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Objectives: The aim of this study was to assess the relationship between MPO and HDL, PCR levels and REGICOR score (Framingham calibrated for Spanish population) in untreated patients neither with statins nor other cardiovascular drugs.

Material and method: Population: 144 patients from the Unit who was untreated neither with statins nor other cardiovascular medication. 43.3 ± 13.0 years, 78 (54.0%) males, 19 (13%) were healthy (healthy was considered as not having Metabolic Syndrome according ATP III 2005, BMI < 30 kg/cm^2, HDL > 35 mg/dL without other SM criteria, LDL < 160 mg/dL, triglycerides < 150 mg/dL, HbAc < 5.7%, fasting plasma glucose < 100 mg/dL, ferrintin < 179 ng/mL, no cardiovascular disease, no hypertension, no hypercholesterolemia, no diabetes mellitus or not previously diagnosed of hypertrigliceridemia, impaired fasting glucose or hyperferritinemia) 65 (45%) had hypercholesterolemia, 33 (23%) had hypertension, 21 (15%) low HDL, 39 (27%) were smokers, 21 (15%) had metabolic syndrome and 27 (19%) had impaired fasting glucose. REGICOR score (only in those between 35 and 75 years old) was 1.9 ± 1.4. A sandwich enzyme-linked immunosorbent assay (BioVendor, Modrice, Czech Republic) was used to determine MPO concentrations in plasma. hs CRP was performed according to Nephelometer technique, by Siemens®. Data are presented as mean and SD or n (%). Skewed variables were natural log transformed before linear regression analyses, as in case of MPO and REGICOR score.

Results: 1. After adjustment for age and sex, a significant negative linear association between MPO and HDL was found (standardized beta = -0.187; p = 0.027). R^2 of the model was 0.041. 2. After adjustment for age and sex, a significant linear association between MPO and hsCRP was found (standardized beta = 0.282; p = 0.002). R^2 of the model was 0.084. 3. After adjustment for age and sex, a significant linear association between MPO and Coronary Risk by REGICOR score was found (standardized beta = 0.384; p = 0.015). R^2 of the model was 0.080.

Discussion: MPO activity is associated to oxidative stress and its activity increases proportionally with the number of infiltrated neutrophils, so it can be used as a leukocyte migration index and then, of oxidative stress in humans. Release of MPO by PMNs during inflammation plays an important role in the innate immune response, but MPO activity may also lead to tissue damage and precipitate atherogenesis. It was demonstrated that in metabolic syndrome patients, high MPO levels were correlated with progressive atherosclerosis. High-density lipoprotein (HDL) acts as an antioxidative protector of LDL and has a transcendental function in atherosclerosis by removing excess cholesterol from artery wall macrophages, which are a rich source of MPO, but to our knowledge, any study has linked levels of MPO and HDL. However, some observations indicate that MPO oxidatively damages HDL in humans.

Conclusions: 1. A relationship between MPO, Coronary Risk and hsCRP could be expected according to the association between MPO, the different cardiac risk factors and the atherosclerosis. 2. There is a linear association between HDL and MPO, and further studies should confirm these results and to clarify the molecular mechanisms involved.

RV-63
BLOOD PRESSURE IN DIABETIC PATIENTS: ANALYSIS OF CIRCADIAN RHYTHM

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Objectives: Blood pressure (BP) has a physiological circadian rhythm with a decrease of the values during sleep. Patients with diabetes mellitus show an absence of the nocturnal physiological lowering of BP (nondipping pattern) more frequently than the rest and has been associated with an increased cardiovascular risk. The aim of our study was to observe the behaviour of the BP in a real clinical setting in a random sample of patients.

Material and method: Prospective study of 105 hypertensive patients. The sample calculation was performed on a universe of 1030 discharged patients from the emergency department of a general hospital from April until June 2010. ABPM was determined by using a device (worn by the patients) that takes blood pressure measurements over 24 hours, usually every 15 to 20 minutes during the daytime and every 30 to 60 minutes during sleep. Two comparison groups were established: patients with Diabetes Mellitus Type 2 (D Group) and nondiabetic ones (ND group). The data were analyzed by using SPSS 18.0 statistical package.

Results: In a sample of 105 hypertensive patients, 35 were diabetic (33.3%) and 70 were non diabetic (66.6%). The following variables were studied: age 63 ± 12 years DG/NDG 65 ± 11 years (p: NS) and sex DG Males: 14/Females: 16; NDG Males: 38/Females: 26 (p: NS). We analyzed the need for antihypertensive therapy: 23 patients (22.3%) with 1medicine, 45 patients (43.6%) with 2 medicines, 28 patients (27.1%) with 3 medicines and 7 (6.7%) with 4 medicine. Analyzing therapeutic families: ACE inhibitors 53% (55patients); Angiotensin 2 receptor antagonists 27% (28 patients); Diuretics 62% (64 patients); Calcium channel blockers 22% (23 patients); Alfa-Blockers 11% (11 patients); B-Blockers 17% (17 patients). Analyzing the subgroup of diabetic patients: average HbA1c 7.3%. In diabetic patients nighttime blood pressure (nondipping pattern) was observed but without reaching statistical significance (P: 0.06), probably due to the volume of the sample (n = 103).

Conclusions: ABPM is a useful technique to assess the circadian rhythm of BP, when we suspect white coat hypertension or episodic hypertension (eg, pheochromocytoma), hypertension resistant to an increasing use of medicines and hipotensive symptoms while taking antihypertensive drugs. Nondipping has also been associated with microalbuminuria and faster progressions of nephropathy in patients with diabetes mellitus. We must pay special attention to these patients to provide an individual antihypertensive treatment, thereby reducing cardiovascular complications so frequent in these patients.

RV-64
OBSERVATIONAL STUDY OF CARDIOVASCULAR RISK IN DIABETIC PATIENTS

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Objectives: The role of cardiovascular risk reduction in patients with diabetes mellitus is significant. Prevention of diabetes is very important to reduce cardiovascular risk. Future therapeutic management strategies will allow us to be more effective at individualizing risk reduction. Our purpose was to analyze the control of traditional risk factors in our diabetic population.

Material and method: Retrospective study in diabetic patients of Internal Medicine, Cardiology and Nephrology of Torrecárdenas (Almería) from August 2011 to September 2011. We analyzed clinical and epidemiological variables: age, sex, comorbidity (retinopathy, kidney disease, cerebrovascular disease, coronary artery disease, peripheral arterial disease) and control of risk factors: hypertension, diabetes mellitus type 2, dyslipidemia, obesity and smoking.

Results: We analyzed 150 patients. The following variables were studied: age 68 ± 9 years, sex 85 males (56.6%)/65 females (43.4%) and comorbility: -Microvascular complications: 52 patients with retinopathy (34.6%) and 68 patients with kidney disease (45.3%): 4 patients in Stage 1 (5.8%), 14 in stage 2 (20.5%), 19 in stage 3 (27.9%), 18 in stage 4 (26.4%) and 13 in stage 5 (19.1%). -Macrovascular complications: 23 patients with cerebrovascular disease (15.3%), 48 with coronary heart disease (32%) and 8 patients with peripheral arterial disease (5.3%). We analyze the control of cardiovascular risk factors as general recommendations of the ADA (American Diabetes Association): -High cardiovascular risk: 104 patients (69.4%): 79 patients (75.9%) with systolic blood pressure < 130 mmHg; 98 patients (94.2%) with diastolic blood pressure < 80 mmHg; 34 patients (32.6%) with glycated hemoglobin < 6.5%; 28 patients (26.2%) with LDL cholesterol < 70 mg/dL; 61 patients (58.6%) with triglycerides < 150; 26 patients (25%) with BMI (body mass index) < 30 and 18 cigarette smoker (17.3%). -Low cardiovascular risk: 46 patients (30.6%): 18 patients (39.1%) with systolic blood pressure < 130 mmHg; 44 patients (95.6%) with diastolic blood pressure < 80 mmHg; 29 patients (63%) with glycated hemoglobin < 6.5%; 19 patients (41.3%) with LDL cholesterol < 70 mg/dL; 38 patients (82.6%) with triglycerides < 150; 8 patients (17.3%) BMI < 30 and 13 cigarette smoker (28.2%).

Conclusions: Our study shows a poor control of cardiovascular risk factors in diabetic patients, especially patients at high cardiovascular risk. We emphasize high rate of obesity and dyslipidemia. We must make an individualized approach in these patients, since many studies show the benefit in reducing morbidity and complications.

RV-65
PROGNOSTIC FACTOR OF AMBULATORY BLOOD PRESSURE MONITORED IN HYPERTENSIVE SUBJECTS OLDER THAN 45 YEARS

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Objectives: The aim of this study was to assess the prognostic role of ambulatory blood pressure monitored in hypertensive subjects to identify factors associated with high cardiovascular risk.

Material and method: We evaluated 213 hypertensive subjects older than 45 years with 24-hours ambulatory blood pressure monitoring (ABPM). Of these 213 subjects, only 183 were selected. The incidence of cardiovascular event was assessed after at least 5 years of monitoring. We defined cardiovascular events as an acute myocardial infarction or stroke. We used test ANOVA and Chi-square test to compare the characteristics of event group and non-event group.

Results: From the 183 subjects selected, 20 of them had cardiovascular events and 163 subjects did not. There was not statistical significance between both groups in age, heart rate, body mass index (BMI), smokers, diabetes, previous cardiovascular disease, hypertension pattern or metabolic syndrome. Difference was identified between 24- hours diastolic blood pressure mean 75.9 mmHg in the non-event group and 110 mmHg in the event group (p = 0.002). There were more events in obese than in no obese (82% versus 17%; p = 0.035). The standard deviation of the activity systolic blood pressure in the event group was higher (p = 0.001).

Discussion: In patients with hypertension and homogeneous characteristics was demonstrated that high diastolic blood pressure and standard deviation of activity systolic blood pressure may predict future cardiovascular events.

Conclusions: The data captured by the ambulatory blood pressure monitoring can be used as prognostic factors in patients with arterial hypertension.

RV-66
IS THERE AN ASSOCIATION BETWEEN MIGRAINE AND CARDIOVASCULAR RISK?

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Objectives: Epidemiological studies support the association between migraine and vascular disorders. In this study we assessed the cardiovascular risk in migraineurs by analytical, anthropometric and sonographic parameters.

Material and method: We investigated 39 migraineurs and 39 controls matched for sex and age. We obtained the following vascular risks: body mass index (BMI), total cholesterol, serum levels of C-reactive protein (CRP), lipoprotein (a), homocysteine, leptin, anckle-brachial index (ABI) and carotid intima-media thickness (CIMT).

Results: Compared with control subjects, BMI, CRP and CIMT were elevated in migraine, difference was significant. Mean BMI for migraineurs was 25.77 and for controls it was 23.45 (p = 0.038), mean CRP for migraineurs was 0.37 and for controls 0.20 (p = 0.048) and mean CIMT for migraineurs was 0.547 and for controls it was 0.504 (p = 0.028). Homocysteine and leptin were increased in migraineurs compared to controls but the study exhibited no statistically significant difference, homocysteine (p = 0.052) and leptin (p = 0.077). We found abnormal values of ABI in 3 healthy subjects (7.7%) and in 7 migraineurs (19.7%) but difference was not significant (p = 0.176).

Discussion: In the last decade, there has been increasing evidence that migraine is associated with specific vascular risk profile and it seems that migraineurs develop more severe and early atherosclerosis. Besir et al found a statistically significant difference between the CIMT values of migraine patients and those of controls. Sherifa et al demonstrate strong evidence of association among migraine and increased CIMT. They also observed that migraine is associated with increased levels of CRP and this result supports the role of inflammation in migraine. Ikeda et al. described a higher frequency of pathological ABI values in migraineurs than in healthy subjects and they suggested that their finding is of relevance and may at least partially explain the increased cardiovascular risk of their population.

Conclusions: The present study indicated higher BMI, serum levels of CRP and CIMT in migraineurs. ABI did not differ statistically

between migraineurs and controls but pathological values are more common in migraineurs. We could measure ABI and CIMT as an easy way to screen cardiovascular risk in migraine patients but further studies are needed to confirm it.

RV-67
PREVALENCE OF PERIPHERAL ARTERIAL DISEASE ASYMPTOMATIC IN HOSPITALIZED PATIENTS AT THE INTERNAL MEDICINE UNIT OF THIRD LEVEL HOSPITAL

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Objectives: Known the prevalence of peripheral arterial disease (PAD) asymptomatic and the assessment of associated factors in hospitalized patients at the Internal Medicine Unit of third level hospital.

Material and method: This is a transversal descriptive study. In total 75 patients were studied, they were hospitalized for a week in the internal medicine unit. Were excluded 20 patients for severe clinical situation or previously diagnosed of peripheral arterial disease. The diagnostic was made by measurement of ankle-brachial pressure index (ABI), defined PAD as ABI < 0.9. The ABI > 1.40 was excluded. The variables were: Age, gender, antecedents and vascular risks factors, comorbidity and Edinburgh test.

Results: A total of 55 subjects (56.4% men) were included. The mean age (standard deviation) was 83 (6.4) years.10.9% (6) patients had pathological ABI, 83.3% (5) were diabetics. From the 26 diabetics patients, 21 (80.8%) had normal ABI and 5(19.2%) had pathological ABI. 12.8% (6/47) patients with arterial Hypertension had a pathological ABI, on the other hand, there were No PAD in patients without hypertension. From 100% (6) patients with Hypertension and pathological ABI, 66.7% (4) take > 3 drugs. The 83.3% (5) patients with pathological ABI are obese and the 16.7% (1) have no obesity. The glomerular filtration from the pathological ABI patients (6) was 34.70 + 13.20 ml/min versus 55.41 + 26.51 ml/min from normal ABI patients (49). The systolic arterial blood pressure of pathological ABI patients was 142.5 + 27.58 mmHg versus systolic arterial blood pressure of 125.02 + 20.33 from normal ABI patients (49).

Discussion: In our study the prevalence of PAD was 10.9%, with a greater frequency in diabetic patients. The prevalence in previous studies in Primary Care varies between 5 and 30%. In hospitalized patients the prevalence is 36%, but with a high proportion of cardiovascular diseases. One limitation of our study is the little due to the recruitment period was carried out in a week.

Conclusions: The prevalence of asymptomatic peripheral arterial disease is high. It's related with hypertension, diabetes, obesity and glomerular filtration.

RV-68
RECOMMENDATIONS FOR MODIFIABLE CARDIOVASCULAR RISK FACTORS IN PATIENTS DISCHARGED FROM AN INTERNAL MEDICINE WARD

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Objectives: To determine the relation between identification of modifiable cardiovascular risk factors and the recommendations reflected in the discharge reports.

Material and method: This retrospective study analyzed medical discharge reports (convenience sampling) between January 2008 and December 2010. Five modifiable cardiovascular risk factors were analyzed: hypertension, dyslipidemia, diabetes, smoking and obesity. Definition of risk factors was made on the basis of previous diagnosis or current treatment (pharmacologic and non-pharmacologic) for each individual risk factor. One point was given for the presence of each risk factor, up to a maximum of 5 points. We looked for the specific treatment recommendations (pharmacologic and non-pharmacologic) for each risk factor, reflected in the discharge report, and one point was also given for each specific recommendation for each individual risk factor. Recommendations were considered adequate if there was an equal relation between the number of risk factors and the number of recommendations.

Results: We analyzed 175 patients (54% men) who had a mean age of 67.8 years, of whom 91% had at least one cardiovascular risk factor and 45% presented two or more risk factors. Hypertension was the most prevalent (59%), followed by smoking (49%) and dyslipidemia (36%). The mean number of cardiovascular risk factors was 1.64 and the mean number of recommendations given in the discharge reports was 0.83. Treatment recommendation at discharge were given in 72% of discharge reports; being concordant to the identified risk factor in 50% of the cases.

Conclusions: Almost all patients hospitalized in an internal medicine ward of a university hospital in Madrid, showed at least one cardiovascular risk factor and nearly a third of the patients did not receive any recommendation in the treatment orders at discharge. Among the patients that received recommendations, these were incomplete in about half of the discharge reports.

RV-70
ASSOCIATION BETWEEN THE HYPERTRIGLYCERIDEMIC WAIST (HTW), DIABETES MELLITUS 2 (DM2) AND CARDIOVASCULAR DISEASE (CVD)

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Objectives: Estimation of the prevalence of the HTW, its epidemiological and clinical characteristics and its association with DM2 and CVD in a sample group of population of the city of Malaga.

Material and method: An epidemiological and transversal study of a representative random sample of 2,492 consecutive adult patients attended in a health centre in Malaga was designed. The recruitment period was January-June of 2007 with inclusion criteria of age 18-80, possibility of access to the health centre and a signed informed consent. Pregnant women, patients with severe mental disorders, serious/terminal diseases, alcoholism/drug addiction or hospitalized during the study period were excluded. Four educational categories were established: illiteracy and primary education (classified as low educational level), secondary and university education (average-high educational level). Three physical activity levels were distinguished: no activity, occasional (< 150 min/week of a moderate pace walking) and regular activity. The first two ones were considered as sedentary lifestyle. Obesity and overweight were diagnosed by the WHO criteria. Hypertension was defined by systolic blood pressure of at least 140mmHg and/or diastolic of at least 90 mmHg or if any antihypertensive drug was used. Diabetes was diagnosed when previously reported or by the HbA1c of at least 6.5%; prediabetes when HbA1c was 5.7%-6.4% or

by fasting glucose between 100 and 125 mg/dl. The diagnosis of CVD was made if a history of ischemic cardiopathy, heart failure, aortic aneurysm, cerebrovascular disease or peripheral arteriopathy was referred. HTW was diagnosed by the WHO anthropometric criteria for the European population (waist of at least 94 cm in men and 80 cm in women) with a fasting level of triglycerides of at least 150 mg/dl.

Results: The prevalence of HTW was 14.5%, being higher in men (18.2%) than in women (10.8%) ($p < 0.001$). Patients with HTW were older (median age of 50.2 ± 14 years), with lower educational level ($p < 0.001$) and sedentary lifestyle ($p < 0.001$). They had as well mayor: BMI, waist perimeter, prevalence of obesity and higher levels of blood pressure. The levels of HbA1c, glucose, uric acid, total cholesterol, LDL were higher and the levels of HDL cholesterol were lower ($p < 0.001$) compared to those without HTW. The presence of HTW was associated with DM2, CVD and coronary disease with an OR (95%CI) of 3.61 (2.60-5.01) ($p < 0.001$), 2.63 (1.66-4.16) ($p < 0.001$) and 1.95 (1.06-3.61) ($p = 0.03$), respectively. The association between HTW and CVD was maintained after being adjusted for sex, blood pressure, smoking habit, sedentary lifestyle, glucose, LDL and HDL cholesterol, but disappeared while adjusted for age. Regarding the association between HTW and DM2, it was maintained after the adjustment for sedentary lifestyle and smoking habit, but disappeared after the adjustment for age and BMI.

Discussion: Data from transversal and prospective studies of the association between HTW and CVD are available. The CV risk associated with HTW was evidenced in normoglycaemic, intolerant to glucose and in DM2 patients. The metabolic atherogenic triad characteristic of HTW was demonstrated to be a stronger marker of the coronary disease in men than the conventional lipid triad. HTW in DM2 can identify a subgroup with mayor visceral adiposity and mayor level of subclinical coronary atherosclerosis. Moreover, it can be a good marker of glucose metabolism alterations.

Conclusions: HTW can be a useful screening tool for a group of patients with a high cardiometabolic risk and could be an alternative for metabolic syndrome. There are necessary more prospective studies to be done to evaluate its utility as a marker of the vascular risk and DM2.

RV-71
EFFECT OF GLP1 ANALOGUES ON BODY WEIGHT IN PATIENTS ATTENTED IN A GENERAL INTERNAL MEDICINE DEPARTMENT. ALCOY'S HOSPITAL EXPERIENCE

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Objectives: To show the clinical direct experience with GLP1 for the treatment of usual patients attended in a Spanish General Internal Medicine Department (older, pluripathological and plurimedicated patients) where both obesity and diabetes are very common.

Material and method: Retrospective review of medical registrations of patients attended in our General Internal Medicine Department (outpatients as well as inpatients) treated with GLP1 analogues from year 2009 to May 2012.

Results: 25 patients (aged 71.1 ± 2.2 years, 32% older than 79 years, 60% females, having 7.1 ± 0.8 drugs/day in 9.4 ± 1.0 times/day) were included for the study with near one year (11.3 ± 1.5 months) of treatment with exenatide (76%) or liraglutide (24%). All the patients had a previous diagnosis of type 2 DM and hypertension. Previous Obesity diagnosis was present in 84% of cases, and metabolic syndrome prevalence according with ATPIII, IDF2005 and 2009 Consensus were 84, 64 and 84% respectively. Sleep apnoea syndrome were present in 44% of cases, and a third of patients were on secondary cardiovascular prevention (40% peripheral vasculopathy, 28% coronary illness, 28% chronic heart failure, 12% previous stroke). Basal weight (mean) was 90.1 ± 2.5 Kg, with HbA1c 7.4 ± 0.3% and fasting glycaemia 150.5 ± 7.0 mg/dL. Weight values were 84.8 ± 2.8, 80.6 ± 3.1 and 79.4 ± 4.1 Kg after 3.2 ± 0.5, 6.2 ± 0.8 and 9.5 ± 1.3 months of follow up. The differences in weight at the visits respect to the previous one were: -4.5 ± 1.6 ($p < 0.0001$), 6.2 ± 0.8 ($p = 0.002$), 9.5 ± 1.3 ($p = 0.130$). The difference in weight at the final visit compared to the basal value was -1.5 ± 3.6 Kg with a large individual heterogeneity and a median (interval) weight loss of -0.5 (-11 to +6) Kg ($p = 0.376$).

Discussion: GLP1 analogues induce a significant and early diminution of weight in older and pluripathological patients attended in a General Internal Medicine Department, although the response is highly variable depending on each patient with weight losses greater than 10 Kg after one year of treatment.

Conclusions: GLP1 analogues seem to be a good option for the treatment of old and pluripathological obese diabetics, although the potential response is highly heterogeneous and individual.

RV-72
CARDIOVASCULAR RISK FACTORS AND PHYSICAL ACTIVITY IN INSTITUTIONALIZED PATIENTS WITH SEVERE MENTAL DISORDER

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Objectives: Patients with psychiatric disorders (PD) have higher prevalence of cardiovascular risk factors (CRFs) than the general population, as has been analyzed by many authors. This fact is related to aspects such as: unhealthy dietary habits, use of drugs associated with development of metabolic syndrome, as in the case of neuroleptics, as well as with lower regular physical activity (PA). PA regularly executed by institutionalized patients with severe mental disorder (SMD; id est, psychotic disorders, major affective disorders and personality disorders), is expected to be effective for improve CRFs, such as control of BMI and maintaining of blood pressure levels, lipid profile and blood glucose in normal ranges. However, these factors still have not been studied on institutionalized psychiatric patients. In this study, the objective is to analyze the effect of a periodical program of PA on the CRFs in institutionalized patients with SMD.

Material and method: An interventional study with two measures before and after a usual physical activity program was performed. Sample consisted of women and men ranging from 18 to 65 years old, with SMD, who have been admited in mid-term hospital and suffer from overweight (BMI > 25). Measures were: BMI, blood pressure, cholesterol, triglycerides, fasting glucose. Comparisons pre and post intervention were performed with no-parametric Wilcoxon test.

Results: There was not a statistically significant reduction of CRFs after intervention. However, categorizing variables by their rank values, a marginal trend to improve was observed in several parameters, such as BMI (16% of patients reduced their weight to normal values after the intervention), arterial tension (100% of patients reduced it to normal values) and glucose levels (improvement from a 16.7% of high levels to an 8.3%).

Discussion: Results of this study should be interpreting in the light of these limitations: small sample size, absence of control group, no control on patient's dietetic intake and no control on

type of pharmacological treatments used. In spite of these limitations our findings highlighted that there was a high prevalence of CRFs factors in institutionalized patients. Physical programs could help to patients to reduce the risk of cardiovascular problems. In this sense, results shows the relevance of be careful about the risk of breaching treatments (dietetic or pharmacological ones) applied on CRFs, at same level than in the general population, who also has a high prevalence of treatment and preventive neglect. This is especially relevant at institutionalized psychiatric population, who have access to ordinary risk dietetic factors as part of the normalization of their lives.

Conclusions: Although this study could not demonstrate that our physical activity program reduced CRFs significant, a marginal improvement on several parameters was observed. Further studies with a greater sample size and a control group should demonstrate whether physical activity program was useful to reduce CRFs. In addition, further studies should be analyzed whether different types of physical activity programs are related to higher reduction on CRFs. It is important to develope preventive strategies on dietary and treatment neglect in order to improve cardiovascular health of patients with SMDs.

RV-73
TOLERABILITY OF GLP1 ANALOGUES IN PATIENTS ATTENDED IN A GENERAL INTERNAL MEDICINE DEPARTMENT. ALCOY'S HOSPITAL EXPERIENCE

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Objectives: To analyze the tolerability of GLP1 analogues in the treatment of patients attended in a Spanish General Internal Medicine Department. The expectable high age, pluripathology and polypharmacy in this kind of patients make them with a high potential low tolerability.

Material and method: Retrospective review of medical registrations of patients attended in our General Internal Medicine Department (outpatients as well as inpatients) from year 2009 to May 2012 in which GLP1 analogues were prescribed.

Results: 25 patients (aged 71.1 ± 2.2 years, 32% older than 79 years, 60% females, 7.1 ± 0.8 drugs/day in 9.4 ± 1.0 times/day) were included for the study with near one year (11.3 ± 1.5 months) of treatment with exenatide (76%) or liraglutide (24%). All the patients had a previous diagnosis of type 2 DM. Main chronic comorbidities prevalences (%) were: 100 hypertension, 84 obesity, 84 ATPIII metabolic syndrome (MS), 64 IDF2005 MS, 84 2009 Consensus MS, 44% sleep apnoea syndrome, 40% peripheral vasculopathy, 28% coronary illness, 28% chronic heart failure, 12% previous stroke. GLP1 analogues were withdrawal in 8 patients: 7 in 19 having exenatide (36.8%) and 1 in 6 having liraglutide (16.6%). The weight loss was similar during all the follow-up comparing tolerant and intolerant patients. Intolerant patients were younger (73.6 ± 11.3 vs 65.9 ± 3.6 years with 41.2 vs 12.5% older than 79 years. p = 0.115 and 0.152 respectively) and received less associated medications (7.8 ± 3.4 vs 5.6 ± 3.4 drugs/day taken in 10.3 ± 5.6 vs 7.3 ± 5.6 doses/day. p = 0.205 and 0.220). Cardio metabolic risk factors were similar comparing tolerant and intolerant patients.

Discussion: Although patients attended in a General Internal Medicine Department are potentially at high risk to in tolerate GLP1 because of very high age and multiple pharmacological treatments and illnesses, it has not been the case, with GLP1 analogues having a high tolerability. There is not a clear profile of patients especially on risk. Main reason to withdrawal such drugs is gastrointestinal intolerance.

Conclusions: GLP1 analogues are well-tolerated in patients in a General Internal Medicine Unit. Vomits are the usual reason to stop this treatment.

RV-74
OBESITY-RELATED PHENOTYPIC DIFFERENCES IN ADULTS WITH DOWN'S SYNDROME

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Objectives: Adults with Down's syndrome (DS) present a different cardiovascular risk profile from the general population's, mainly owing to a higher prevalence of obesity in the former group. However, major vascular events are virtually absent among adults with DS. We aim to 1) compare obesity-related phenotypes, focusing on dietary, morphologic, and metabolic differences in adults with DS versus a non-trisomic cohort, and 2) to evaluate the impact of hypothyroidism on this phenotype.

Material and method: Cross-sectional study of 62 subjects recruited at the adult Down syndrome unit of the Hospital Universitario La Princesa, Madrid, Spain, between January and May 2012. Control was most frequently siblings of these adults with DS, and was matched by age, and gender. Epidemiological (age and gender), anthropometric (height, weight, body mass index [BMI], waist circumference, and% body fat), dietary (daily dietary fat, fruit and fiber consumption), and analytical variables (fasting glucose, insulin, HbA1c, lipid profile, and TSH/free T4) were measured. Results were compared with non-parametric tests.

Results: 33 adults with DS and 29 controls were enrolled (age: DS 38 ± 11 vs controls 44 ± 13 years; gender: 19 males with DS [58%] vs 11 males in the control group [38%]; p non-significant for both comparisons). Adults with DS had a higher BMI (30.0 ± 4.7 vs 25.9 ± 3.6 Kg/m^2; p < 0.001), and were more frequently overweight or obese (p < 0.001 for the distribution). However, DS adults ate more fruit/vegetables portions daily and had a higher intake of dietary fiber than controls (fruit/vegetables portions: 4 ± 1 vs 3 ± 1; p < 0.01, daily dietary fiber 19 ± 4 g vs 16 ± 3 g; p < 0.01). We found no difference in waist perimeter, prevalence of abdominal obesity, or total body fat percentage between groups, neither did we find gender differences. Only three adults with DS (9%) and two control subjects (11%) met ATPIII metabolic syndrome criteria. Adults with DS also had higher HOMA-IR index values (3.87 ± 3.24 vs 2.35 ± 0.92; p < 0.05), and eight of them (24%) fulfilled criteria for insulin resistance (vs 0 controls; p < 0.05). Adults with DS and hypothyroidism (n = 8) had the highest BMI (33.1 ± 5.5 vs 29.0 ± 4.1 vs 25.9 ± 3.6 Kg/m^2; p < 0.001) and HOMA-IR index values (5.85 ± 3.77 vs 3.06 ± 2.7 vs 2.35 ± 0.92; p < 0.01) when compared to euthyroid adults with DS and controls. They also presented a higher prevalence of insulin resistance (4/8 [50%] vs 4/21 [16%] euthyroid adults with DS vs 0/18 controls; p < 0.01), and significantly lower serum HDL-cholesterol levels (50 ± 15 vs 60 ± 15 vs 63 ± 15 mg/dL; p < 0.01).

Discussion: Despite a slightly healthier diet than controls, obesity is a common feature in adults with DS. Although abdominal obesity was not more prevalent in this population, adults with DS presented a higher prevalence of insulin resistance. Hypothyroidism worsens this phenotype, since hypothyroid adults with DS presented even higher BMI and insulin resistance rates than their euthyroid peers.

Conclusions: Adults with DS present significant obesity-related morphologic, and metabolic differences compared to control

subjects, which are further enhanced by the presence of hypothyroidism.

RV-75
GENETICS VARIATIONS INFLUENCE POSTPRANDIAL LIPIDS OF THREE DIFFERENT POPULATIONS

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Objectives: TCF7L2 rs7903146 is an important genetic factor predicting type 2 diabetes (T2DM), and it has also been related to higher cardiovascular risk. To date, there is little information about the additional impact of this single nucleotide polymorphism (SNP) beyond glucose metabolism. Our aim was to explore whether rs7903146 influenced postprandial lipid metabolism in three different populations (healthy young men, metabolic syndrome (MetS) and elderly persons).

Material and method: Eighty eight healthy males were submitted to a single saturated fatty acid-rich test meal. Additionally, 110 middle-aged MetS persons and 20 healthy elderly persons (≥ 65 years) were submitted to three different dietary models followed by test meals. The amount of fat given, per kg body wt, was 1 g fat and 7 mg cholesterol. The meal contained 65% of energy as fat, 10% of energy as protein, and 25% of energy as carbohydrates; it was consumed in 20 min.

Results: Minor allele homozygotes for rs7903146 showed a worse postprandial lipemia profile in young males, as seen by a lower HDL-cholesterol and Apo A1 concentration during the postprandial lipemia and a trend towards higher triglycerides (TG), than the other genotypes. In healthy elderly persons, carriers of the minor allele showed higher total cholesterol, LDL-cholesterol, Apo B and TG in the fasting state, and a higher postprandial area under the curve for total cholesterol, Apo B, small-TRL cholesterol and small-triglyceride rich lipoproteins (TRL) triglycerides. These results were accompanied by differential changes in adipokines.

Discussion: In contrast to the burgeoning existing data on the influence of TCF7L2 variations on glucose metabolism, which is the subject of over 80 studies, their influence in postprandial lipids is at present unexplored, with only one study reporting an altered postprandial lipid profile in high polyunsaturated fatty acids (PUFA) consumers. Furthermore, neither the effects on different populations nor their possible underlying mechanisms (beyond the beta-cell function) have been explored, despite the well-known regulation of adipocyte differentiation by TCF7L2. Our study shows for the first time that carriers of the rare allele of TCF7L2 rs7903146 have a disrupted lipid metabolism, which is seen in different ways depending on age and baseline conditions.

Conclusions: Healthy young males and elderly persons who are carriers of the mutant allele for rs7903146 have an impaired postprandial lipid metabolism that may be mediated by an alteration in adipokine regulation, and may be related to the higher cardiovascular risk observed in these persons.

RV-76
GENE-NUTRIENT INTERACTIONS AT THE PHOSPHOENOLPYRUVATE CARBOXYKINASE INFLUENCE INSULIN SENSITIVITY IN METABOLIC SYNDROME SUBJECTS

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Objectives: Genetic background may interact with habitual dietary fat composition, and affect development of the metabolic syndrome (MetS). The phosphoenolpyruvate carboxykinase gene (PCK1) plays a significant role regulating glucose metabolism, and fatty acids are key metabolic regulators, which interact with transcription factors and influence glucose metabolism. We explored genetic variability at the PCK1 gene locus in relation to degree of insulin resistance and plasma fatty acid levels in MetS subjects. Moreover, we analyzed the PCK1 genetic variants effect in its gene expression level in adipose tissue.

Material and method: Insulin sensitivity, insulin secretion, glucose effectiveness, plasma concentrations of C-peptide, fatty acid composition and three PCK1 tag-single nucleotide polymorphisms (SNPs) were determined in 443 MetS participants in the LIPGENE cohort.

Results: The rs2179706 SNP interacted with plasma concentration of n-3 polyunsaturated fatty acids (n-3 PUFA), which were significantly associated with plasma concentrations of fasting insulin, peptide C, and HOMA-IR. Among subjects with n-3 PUFA levels above the population median, carriers of the C/C genotype exhibited lower plasma concentrations of fasting insulin ($p = 0.036$) and HOMA-IR ($p = 0.019$) as compared with C/C carriers with n-3 PUFA below the median. Moreover, homozygous C/C subjects with n-3 PUFA levels above the median showed lower plasma concentrations of peptide C as compared to individuals with the T-allele ($p = 0.006$). Interestingly, subjects carrying the T-allele showed a lower gene PCK1 expression as compared with carriers of the C/C genotype ($p = 0.015$).

Discussion: In our study we observed a gene-fatty acid interaction among subjects with the rs2179706 SNP and plasma levels of n-3 to influence insulin resistance, suggesting the potential sensitivity of this SNP to dietary factors. Genetic variation promoting enhanced PCK1 transcription might lead to increased PEPCK-C enzymatic activity, which would increase insulin resistance through its effect on gluconeogenesis.

Conclusions: The PCK1 rs2179706 polymorphism interacts with plasma concentration of n-3 PUFA levels modulating insulin resistance in MetS subjects.

RV-77
POSTPRANDIAL LIPID METABOLISM IS INFLUENCED BY ICA1L GENE VARIANT (RS10870) IN HEALTHY MEN

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Objectives: Islet cell autoantigen 1(ICA1L) gene has been related to Golgi apparatus structure. However, there are not clear data on possible function of this gene in human metabolism. We studied the effect of a gene variant (rs10870) influence on postprandial lipid metabolism.

Material and method: 88 normolipidemic young men were given a fatty meal. Blood samples were drawn just prior to the meal and postprandially every hour until 6 hours, and then every 2 hours and 30 minutes until 11 hours.

Results: For rs10870 single nucleotide polymorphism, carriers of the minor allele (CT/TT) displayed lower postprandial concentrations of large triglyceride-rich lipoprotein triglycerides (Large-TRL TG) than did subjects homozygous for the major allele ($p = 0.029$). In addition, for the same polymorphism, subjects carriers of the minor allele had significantly lower amounts of accumulated postprandial Large-TRL TG compared with homozygous for the major allele ($p = 0.014$). On the other hand, the postprandial area under the curve (AUC) in study participants according to the ICA1L polymorphism were analyzed. Interestingly, the AUCs for Large-TRL TG ($p = 0.041$) were lower in persons carrying the minor T allele than in those carrying the CC genotype for rs10870.

Conclusions: The presence of the minor allele for rs10870 polymorphism at ICA1L gene, is associated with a lower postprandial response which accounts for a lower cardiovascular risk. However, due to the novelty of our findings further studies to replicate these findings may be performed.

RV-78
PRIMARY ALDOSTERONISM IN OLD AGE

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Objectives: Primary aldosteronism (PA) is an uncommon cause of hypertension in old age. We present a descriptive study about PA in the hypertensive patients over 65 years, in a hypertension office. Key words: Hypertension. Primary aldosteronism. Old age.

Material and method: Two thousand hypertensive patients have been studied in office due to resistant hypertension or suspicion of secondary hypertension. A protocol which included analytics, electrocardiogram and ultrasonic abdominal was made to all hypertensive patients. In order to realize aldosteronemia (AI) and basal plasma renin activity (PRA) we required: 1) An unknown cause of kaliemia < 4 mEq/l, 2) inappropriate kaliuria (potassium in urine collection of 24 hours urine > 30 mEq, with normal kaliemia), or 3) increased adrenal size in the ultrasonic study. Aldosteronemia and PRA were made with a diet of 200 mEq of NaCl, in supine. A ratio AI/PRA over 30, with high aldosteronemia and suppressed PRA, confirmed PA diagnosis. Other tests were made in order to differentiate hyperplasia from adenoma. Data was processed using SPSS 16.

Results: PA was demonstrated in 62 of 2,000 hypertensive adults patients; 17 (27.4%) of them were diagnosed in the geriatric age. The characteristics of geriatric cases were: Mean age 71 ± 5 years (range 65-85 years); Eight (47.1%) were women. In all cases the kaliemia was < 4 mEq/l (mean of 3.45 mEq/l, range of 2-4 mEq/l), and the aldosteronemia was higher than 17 mcg/dl (mean: 30 ± 12 mcg/dl range 17-65). The ratio A/PRA was greater than 30 in all cases (mean 113.6, range from 34-325). Low basal PRA and suppressed PRA, and inappropriate kaliuria (mean 82.2 ± 18.5 mEq/day, with range 49-122) were observed in all cases. Ultrasonic study and abdominal CT was realized to the 17 patients. Adrenal nodules were detected in: 1) 2 patients (11.7%) by ultrasonic study, and 2) 10 patients (58.8%) by abdominal CT (with a diameter bigger than one cm). The remainder patients (PA with normal-sized adrenal) were diagnosed of adrenal hyperplasia. Laparoscopic adrenalectomy was performed in 6 cases. All cases, including those which were performed adrenalectomy, needed other treatment for blood pressure control (antialdosteronic plus other antihypertensive drugs). Comparing 17 PA in geriatric age with 45 cases below 65 years old by bivariate analysis, the existence of an adrenal nodule and the need of antihypertensive treatment after surgery ($p < 0.05$) were statistically significant.

Discussion: The primary aldosteronism usually affects the middle age. In most series, PA is also diagnosed in some elderly patients. The clinical features, complementary tests and treatment are similar in old age as in adulthood.

Conclusions: 1) Potassium < 4 mEq/l has been the main guide for the diagnosing research of the PA. 2) The presence of high aldosteronemia and low basal PRA is constant in the PA. 3) These tests (associated with abdominal CT) are usually enough for the diagnosis of PA in the old age. 4) The existence of an adrenal nodule (Conn Syndrome) is more common in the PA in old age.

RV-79
CLINICAL RELEVANCE OF TREATMENT WITH HIGH DOSES OF ATORVASTATIN IN A COHORT OF PATIENTS WITH PERIPHERAL ARTERIAL DISEASE: PRELIMINARY RESULTS

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Objectives: Peripheral arterial disease is a highly prevalent entity, especially in diabetics. Statins have clinical and analitical beneficial effects in patients with coronary and cerebral atherosclerosis. We intend to study the effect of high doses of atorvastatin in the evolution of lower limbs arterial disease.

Material and method: We compared two groups of patients with lower limbs arterial disease. The study group was treated with 80 mg atorvastatin daily, and control with lower dose or another statin. Mean follow-up was close to 18 months. Vascular risk associated biochemical parameters were measured at the beginning and at the end of the study, and cardiovascular events and mortality were registered.

Results: The mean age was 67.63 years. The majority were male (77.2% in the study group, 81.6% in the control group, $p = 0.578$), with hypertension (68.3% in the study group, 71.1% in the control group, $p = 0.756$), and diabetes (82.2% in the study group, 76.3% in the control group, $p = 0.436$). In both groups occurred, at the end of follow-up, a significant decrease in serum total cholesterol (47.78 mg/dl in the study group, $p = 0$, and 57.28 mg/dl in the control group, $p = 0$), its low density fraction (44.8 mg/dl in the study group, $p = 0$, and 44.48 mg/dl in the control group, $p = 0$) and apolipoprotein B-100 (25.91 mg/dl in the study group, $p = 0.001$, and 26.2 mg/dl in the control group, $p = 0.036$) but in the atorvastatin 80 group there was also a reduction of triglycerides (31.71 mg/dl, $p = 0.033$), non-high density cholesterol (65.5 mg/dl, $p = 0$) and C-reactive protein (4.56 mg/l,$p = 0.044$). In addition, the atorvastatin 80 group had a final homocysteine serum concentration lower than the control group (respectively, 14.6 mg/dl and 30.51 mg/dl, $p = 0.008$). There was no difference in cardiovascular events in both lower limbs as brain or heart, or mortality.

Conclusions: In peripheral arterial disease, atorvastatin, at doses of 80 mgr daily, reduces serum C-reactive protein and homocysteine, in addition to its known effects on plasma lipids. Our study needs to be continued in order to find effects on cardiovascular events and mortality.

RV-80
GENETIC VARIATION AT THE CEBPA GENE MODIFIES POSTPRANDIAL LIPID METABOLISM OF METABOLIC SYNDROME PATIENTS: LIPGENE STUDY

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Objectives: CCAAT/enhancer-binding protein alpha (CEBPA) is a transcription factor that has been related to adipocyte differentiation from pre-adypocite. A previous work reported that a variation in the CEBPA gene (rs12691) may be associated with triglyceride fasting concentration. However, effects of this gene variation on postprandial lipid metabolism have not been studied to date. Metabolic syndrome patients (MetS) are a population at high risk for developing type 2 diabetes mellitus, and they have a disrupted lipid metabolism. LIPGENE Clinical Trials registry (NCT00429195).

Material and method: A multi-center, parallel, randomized, controlled trial conducted within the LIPGENE study randomly assigned MetS patients to 1 of 4 diets: high-saturated fatty acid, high-monounsaturated fatty acid, and 2 low-fat, high-complex carbohydrate diets supplemented with 1.24 g/d of long-chain (n-3) PUFA or placebo for 12 wk each. A fat challenge with the same fat composition as the diets was conducted pre- and postintervention, and lipid fractions were assessed.

Results: Postprandial TG were higher in the carriers of the minor allele (GA/AA) both at the pre-intervention (p 0.018) and post-intervention (p 0.033) measurements, with differences at all timepoints (0, 2, 4, 6 and 8 hours). These carriers also showed a lower HDL (p 0.026 and p 0.018), and a trend to higher large-TRL TG (p 0.092) and apoB-48 (p 0.060), irrespectively of the diet consumed.

Conclusions: CEBPA rs12691 minor allele carriers exhibit a more atherogenic postprandial lipemia. This finding suggests that the triglyceride levels of these persons should be be strictly controlled.

RV-81
COST/EFFECTIVENESS ANALYSIS OF INTENSIVE VERSUS CONVENTIONAL TREATMENT ON PATIENTS WITH TYPE-2 DIABETES MELLITUS

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Objectives: To evaluate the costs and incremental cost-effectiveness of intensive treatment versus standard treatment in patients with type-2 diabetes mellitus (DM).

Material and method: 650 of our patients are type 2 diabetic ones. From that subgroup, we chose those of them who arrived to our unit in 2010 and were reevaluated during 2011. A retrospective observational study of these patients was performed. The costs and effectiveness of the initial treatments were estimated, as well as those of the treatments after one year of therapy. Effectiveness was defined as the decrease in clinical units after intensive treatment by a specialist. The patients data that were collected included age, sex, weight, height, BMI, years since diabetes diagnosis, family history of premature coronary disease (PCD), smoking, retinopathy, nephropathy and blood pressure, as well as analytical data: cholesterol, HDL, LDL, glucose, glycated hemoglobin (A1c), CRPhs. The costs were estimated after reviews of the clinical history and correspond to antihypertensive, lipid lowering, and antidiabetic medications. Data are presented as mean and SD or n(%); skewed variables were natural-log transformed before performing Student's t-test analysis.

Results: A total of 37 T2DM patients were analyzed, ages 59.7 ± 11.4, of which 26 (70.27%) were men. On arrival at our clinic, the patients had 7.83 ± 7.48 years since being diagnosed with their illnesses, 21.62% had a family history of PCD, and 37.83% smokers. 43.24% had some kind of renal abnormality and 8.10% had retinopathy. The patients' data on arrival at our unit were: weight 83.48 ± 14.59 kg, BMI 29.52 ± 4.18 kg/m^2. The total costs before and after the medical evaluation suffered an average increase of 30.05 ± 31.43€, distributed among pathologies as follows: antihypertensives resulted in an average incremental cost of 5.30 ± 13.43€, yielding mean decreases of 5.78 ± 19.11 mmHg in systolic pressure, which was at the limit of the statistical significance (p = 0.074), and of 2.21 ± 8.14 mmHg in diastolic pressure. Patients requiring lipid-lowering agents increased their average cost by 8.70 ± 15.31€, resulting, 8.87 ± 34.48 mg/dl of LDL (p = 0.002), and an average increase of 1.44 ± 6.60 mg/dl of HDL; and antidiabetic treatment is an average incremental cost 7.18 ± 20.56 €, with average decreases in blood glucose levels of 13.59 ± 49.25 mg/dl (p = 0.049) and in glycated Hb of 0.23 ± 0.97%, but a 29.70% of T2DM decreases their A1c levels over 0.5% and this decline has economic implications too elevated.

Discussion: Cardiovascular disease mortality is the most common cause of death in patients with type 2DM, with an incidence at least double that in the general population. The total direct annual costs of diabetes in eight European countries were estimated at €29 billion, with an estimated yearly cost per patient of €2,834. From a health care payer perspective in Steno-2 Study (Denmark), intensive therapy was more cost-effective than conventional treatment. Assuming that patients in both arms were treated in a primary care setting, intensive therapy became dominant (cost- and lifesaving). Given the recommendation of the ADA and the Steno2 regarding the treatment of patients diagnosed with DM2, through a multifactorial approach, with strict glycemic control and incisive management of cardiovascular risk factors, it is necessary to study the cost/effectiveness of interventions from specialized medical counseling in this disease.

Conclusions: 1. The most cost-effective intervention in the diabetic patient is always the LDL-target one, as occurred in our study. 2. According to the results obtained with our patients, it can be stated that the performed intensive treatment resulted in clinical benefits in all risk parameters of DM2, within an acceptable cost-effectiveness threshold. It would be advisable to perform an analysis with a larger number of patients, as well as a full economic evaluation which should take into account other costs and the patients' quality of life.

RV-82
NOCTURNAL BLOOD PRESSURE VARIABILITY CORRELATES WITH TARGET ORGAN DAMAGE IN HYPERTENSIVE SUBJECTS

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Objectives: Growing evidence associates blood pressure (BP) variability with cardiovascular events in hypertensive patients. Here we tested the existence of a relationship between nocturnal BP variability and target-organ damage (TOD) in hypertensive subjects.

Table (RV-82)

	48h-sBP SD	48h-awake sBP SD	48h-asleep sBP SD
Ankle-arm index	-0.175*	-0.321**	-0.230**
Intima media thickness	0.154*	0.318**	0.158*
Pulse wave velocity	0.255*	0.394**	0.308**
Glomerular filtration rate	-0.064	-0.243**	-0.169**
24h-microalbuminuria	0.108	0.180*	0.088

*p < 0.05; **p < 0.01.

Material and method: We studied 398 hypertensive subjects (202 men), 55.6 ± 14.93 (mean ± SD) years of age. BP was measured by 48 hours ambulatory monitoring with a Spacelabs 90207 device and systolic BP variability were assessed as the standard deviation of the mean out of 48-hour, awake and asleep BP recordings. Ankle-arm index (by echo-doppler), intima-media thickness (by carotid ultrasonography), pulse wave velocity (by applanation tonometry), glomerular filtration rate (by MDRD) and 24hour-microalbuminuria were assessed as indices of vascular and renal damage, respectively.

Results: Nocturnal systolic BP variability inversely correlates with ankle-arm index (r: -0.23; p: 0.01) and glomerular filtration rate (r: -0.169;p: 0.06), whereas we found positive correlation between nocturnal systolic BP variability and intima-media thickness (r: 0.158; p: 0.025) and carotid-radial pulse wave velocity (r: 0.308; p: 0.00). We did not found relationship between nocturnal systolic BP variability and 24hour-microalbuminuria. These correlations appears even stronger when we assess awake systolic BP variability and TOD markers, which includes 24hour-microalbuminuria.

Conclusions: The relationship between nocturnal blood pressure (BP) decline and various vascular incidences and TOD is well known. Few evidence associates nocturnal BP variability with TOD. This is the first time nocturnal blood pressure variability measured as standard deviation of 48-hour ambulatory monitoring relates to TOD. Although awake systolic BP variability seems to be a stronger predictor it could have marked effects in both research and clinical daily practice for a proper evaluation of cardiovascular risk in hypertensive subjects. Relationship between 48hour systolic BP variability (measured as 48h, awake and nocturnal systolic BP standard deviation) and several target organ damage markers.

RV-83
CENTRAL BLOOD PRESSURE MAY PREDICTS ARTERIAL DAMAGE IN HYPERTENSIVE SUBJECTS

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Objectives: Large artery stiffening and the wave reflection phenomenon have been identified as being the most important pathophysiological determinants of isolated systolic hypertension and pulse pressure increases. However, the prognostic role of central as opposed to peripheral blood pressure needs to be further confirmed in more large-scale observational and interventional studies. Here we tested the existence of a relationship between central systolic/diastolic BP and pulse pressure (PP) with several markers of abnormal structure and function of large arteries in hypertension.

Material and method: We studied 398 hypertensive subjects (202 men), 55.6 ± 14.93 (mean ± SD) years of age. At Cor Medical device (Sphygmo Cor Px®, Vx®, Sidney, Australia) which uses a validated transfer function was used to derive aortic systolic/diastolic BP and central PP. Ankle-arm index (by echo-doppler), intima-media thickness (by carotid ultrasonography) and carotid-femoral pulse wave velocity (by applanation tonometry), were assessed as indices of large arteries atherosclerosis.

Results: Peripheral and central systolic BP correlate with ankle-arm index (r: -0.207; p: 0.004 and r: -0.153; p: 0.04), and pulse wave velocity (r: 0.445; p: 0.000 and r: 0.432; p: 0.00), but don´t correlate to intima-media thickness. Peripheral and central diastolic BP inversely correlate with intima-media thickness (r: -0.406; p: 0.000 and r: -0.412; p: 0.00), but don't correlate to ankle-arm index nor pulse wave velocity. Finally, peripheral and central pulse pressure inversely correlate with AAI (r: -0.207; p: 0.004 and r: -0.153; p: 0.04) and also correlate with IMT (r: 0.371; p: 0.000 and r: 0.444; p: 0.00) and PWV (r: 0.555; p: 0.000 and r: 0.575; p: 0.00).

Conclusions: Central blood pressure seems to have at least the same predictor value as peripheral BP in order to assess vascular damage in hypertensive subjects. It may help us to identify hypertensive subjects with higher vascular stiffness.

RV-84
TARGET ORGAN DAMAGE AND CIRCADIAN BLOOD PRESSURE PROFILE

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Objectives: It has been reported the relationship between increased target organ damage (TOD) and non dipping nocturnal blood pressure. Nevertheless, increased BP variability due to a pressor effect on patient using the device for the first time has previously been reported. It has been demonstrated to diminish further lengthening the monitoring span to 48-hour. The purpose of the present study was to evaluate whether 48-hour circadian blood pressure profile correlate with TOD in hypertensive subjects.

Material and method: 340 patients with essential hypertension submitted to our Hypertension Unit (41.4% women), 55.67 years old, were included. Patients underwent glomerular filtration rate (GFR) as calculated by Modification of Diet in Renal Disease (MDRD), urinary albumin excretion rate (UAER) and microalbuminuria -MAL-, an echo-doppler study to evaluate carotid intima-media thickness (IMT) and ankle-arm index (AAI) and applanation tonometry to estimate carotid-femoral pulse wave velocity (PWV). BP was measured by 48 hours ambulatory monitoring with a Spacelabs 90207 device adjusting the diurnal and nocturnal period for each patient. We analyze differences on TOD rates regarding circadian BP pattern.

Results: 45.58% of subjects were non-dipper; a little bit elder (59.77 years old vs 52.04), with higher waist perimeter (102.7 cm vs 98.39 cm). There were no significant differences on gender, body

mass index, smoking habit, heart rate or dyslipemia prevalence. We found differences on several TOD markers as IMT (0.83 mms in non dipper subjects Vs 0.78 mms in dipper subjects; p = 0.032) or AAI (1.06 vs 1.14 respectively; p = 0.003). Carotid-femoral PWV was higher in those hypertensive subjects with impaired nocturnal BP decline (10.39 m/s vs 9.22 m/s; p = 0.002). We also found differences on glomerular filtration rate by MDRD (72.40 ml/min in non dipper subjects vs 83.89 ml/min; p = 0.000). There were no significant differences on regard of UAER nor microalbuminuria.

Conclusions: Circadian blood pressure profile may help us to identify hypertensive subjects with advance vascular damage. It may be related to increased cardiovascular morbidity and mortality in those non dipper hypertensive subjects. Further studies are necessary in order to demonstrate improving nocturnal BP falling goes with decrease arterial stiffness.

RV-85
ASSOCIATIONS BETWEEN ADIPOKINES AND CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH CHRONIC HEPATITIS C AND TYPE 2 DIABETES MELLITUS

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Objectives: The aims of the study were to evaluate the relationship between cardiovascular risk, insulin resistance (IR), cytokines and chronic hepatitis C (CHC), in patients with CHC and type 2 diabetes mellitus.

Material and method: Observational, multicenter study that included 113 patients with CHC and diabetes. There were followed anthropometric indicators (weight, height, waist circumference, BMI (body mass index). Biochemical parameters followed were blood glucose, glycosylated hemoglobin, lipid profile (cholesterol, trigiceride, HDL-cholesterol), liver profile (ALT, AST, GGT, bilirubin, albumin, total protein), blood count, cytokines (adiponectin, leptin, TNF-α, IL-6, resistin). IR was determined using Homeostasis model assessment (HOMA-IR). The liver fibrosis was non-invasively assessed using the Forns index; a value < 4.2 excludes liver fibrosis and a value > 6.9 is a predictor for significant fibrosis. The 10-year coronary heart disease (CHD) was calculated for each patient using the UKPDS risk engine.

Results: The average age of the evaluated patients was 53.3 ± 7.8 years, 46% females (n = 52), with type 2 diabetes for 2.3 years. Metabolic syndrome (MetS) was present in 88 patients (77.9%). Median serum concentrations of leptin, TNF-α, IL-6, resistin were higher in patients with UKPDS-CHD over 30 (all p < 0.05). Using the UKPDS score, 8% (n = 9) and 45% (n = 51) of the patients presented a high and moderat risk for CVD. UKPDS-CHD score was strongly correlated with age (r = 0.42, p = 0.02), GGT (r = 0.41, p = 0.03), HOMA-IR (r = 0.46, p = 0.001), fasting insulinemia (r = 0.215, p = 0.022), systolic blood pressure (SBP) (r = 0.32, p = 0.03), TNF-α (r = 0.38, p = 0.02), IL-6 (r = 0.28, p = 0.034), cholesterol (r = 0.29, p = 0.045) and negatively correlated with adiponectin (r = -0.315, p = 0.022) and HDL-C (r = -0.37, p = 0.001). In this population multiple regression models controlling for BMI indicated that adiponectin (R(2) = 0.16, p = 0.034), resistin (R(2) = 0.18, p = 0.045), and IL-6 (R(2) = 0.112, p = 0.048) were associated with SBP. Forns index > 6.9 was associated with increased CHD risk (r = 0.341, p = 0.0001), HOMA-IR (r = 0.47, p = 0.001), leptin (r = 0.317, p = 0.001), TNF-α (r = 0.467, p = 0.001), IL-6 (r = 0.404, p = 0.001), resistin (r = 0.361, p = 0.001), adiponectin (r = -0.352, p = 0.001).

Conclusions: It was observed that high values of Forn's index are associated with increased risk of CHC and HOMA-IR. Patients with hepatitis C and diabetes have a greater risk to develop cardiovascular diseases. CHC has an important clinical impact on cardiovascular risk in patients with diabetes. An important role in determining treatment decisions is the estimation of CHD risk.

RV-86
FASTING LIPIDS IN NORMOLIPIDEMIC SUBJECTS WITH POSTPRANDIAL HYPERLIPIDEMIA

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Objectives: Postprandial particles are atherogenic. It is said that postprandial hyperlipidemia is a risk factor for arteriosclerosis. However, it has not been introduced in clinical practice due to the complexity of its assessment. The aim of our study was to identify fasting variables associated with postprandial hyperlipidemia.

Material and method: We analyzed fasting and postprandial lipids 4 hours after a mixed meal containing 50 g of fat, among subjects non-treated with lipid-lowering drugs, 121 had type 2 diabetes and 82 non diabetic controls. Clinical, anthropometric data and medications were registered. Serum lipids, apolipoprotein B, A1 and B48 were assessed by immunoturbidimetry or ELISA. Only patients with fasting triglycerides (Tg) < 200 mg/dL were included. Postprandial hyperlipidemia was considered if Tgs at 4 hours were > 200 mg/dL.

Results: Those who remaining normolipidemic after the fat load had lower levels of fasting Tg, total cholesterol, LDL cholesterol, apo B48, apo B and higher levels of HDL cholesterol than those having postprandial hyperlipidemia. In multivariate analyses, only fasting Tg > 150 mg/dL, type 2 diabetes and fasting HDL cholesterol were independently associated with postprandial hyperlipidemia.

Discussion: There is no consensus defining postprandial hyperlipidaemia. Using this simple approach, we were able to show that type 2 diabetes, together with Tg over 150 mg/dL, but not fasting apolipoproteins, mainly the apo B48, an specific marker of postprandial lipids, were significantly and independently associated with postprandial hyperlipidaemia.

Conclusions: Fasting Tgs in the range of the metabolic syndrome, type 2 diabetes and low HDL cholesterol were markers in the fasting state of postprandial hyperlipidemia.

RV-87
USUAL METHODOLOGY FOR BLOOD PRESSURE MEASUREMENT IN THE COMMUNITY PHARMACIES. FARMAPRES PROJECT

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Objectives: To assess the usual methodology applied for the measurement of BP in the Community Pharmacies (CPh) and its validity.

Material and method: A survey with 12 questions was designed to assess the usual methodology applied for BP measurements in all the CPh of the Health Department of Alcoy, in the province of Alicante. The survey was sent by conventional as well as electronic mail to the 79 CPh of the Department.

Results: The response of 39 in 79 CPh (49.4%) was obtained, with more than 95% of the population covered. BP measurement is usually (97%) made in sitting position (3% at standing position) at the brachial level (87%), although in 13% it is made at the wrist. In spite of 39% pharmacies have specific cuff for brachial perimeter > 32 cm ("obese cuff"), only 4% measured arm circumference before BP measurement, with 8% saying that "they no have this kind of client". The majority of CPh made one (62%) or two (25%) consecutive BP measurements, although it is very common (76% of those with a usual unique measurement) a second measurement "after 5 minutes of rest" in the case of a "high BP" with the first measurement. It is very heterogeneous the type of tensiometer used in each CPh, with 27 different models identified. It is noteworthy the fact that in 31.1 and 2.6% of the occasions two or three different systems are used. Semiautomatic tensiometers are the mostly used (44%), with aneroid and mercury ones used in 33 and 23% respectively. Just 52% of semiautomatic tensiometers (27.6% of total tensiometers) are validated according to adbl Education Trust criteria (http://www.dableducacional.org).

Discussion: Results are in accordance with three previous studies made in Spain in Albacete and Guipúzcoa provinces and at the city of Valencia showing a correct BP measurement just in 10% of CPh.

Conclusions: It is necessary to improve methodology for BP measurement in CPh before promote their participation in the control of hypertension through the implementation of using validate measurement systems, adjustment of the cuff to the arm circumference and systematic use of repeated consecutive measurements.

RV-88
ANTIHYPERTENSIVE TREATMENT REDUCES PULSE WAVE VELOCITY IN PREVIOUSLY NEVER TREATED HYPERTENSIVE PATIENTS

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Objectives: Aorto-femoral pulse wave velocity (PWV) is a well established method to to evaluate vascular damage and therefore stratify hypertensive patients. Several studies in different populations have demonstrated the value of baseline measurements of PWV for assessing cardiovascular risk, but information about the influence of treatment on this variable is scarce. Our objective was to assess if antihypertensive treatment is able to reduce PWV after one year of treatment.

Material and method: This is a longitudinal study including 480 (250 men, 52.0%) non-diabetic, never treated hypertensive patients. At baseline we measured standard clinical variables, as well as PWV (Sphygmocor-System of Atcor-Medical), left ventricular mass and geometry and diastolic function (echocardiography) and renal function with microalbuminuria and estimated glomerular filtration rate (MDRD-formula) to asses target organ damage. At a median of 1.05 years, a second visit was performed, all the measures were repeated.

Results: The mean age was 49.5 ± 12 years with initial systolic and diastolic BP of 146/87 mmHg (SD ± 14/11). The initial prevalence of left ventricular hypertrophy (LVH), pathological urinary albumin excretion rate (UAER) and PWV > 12 m/sec were 31.2, 12.8 and 8.8%, respectively. We defined a decrease of 1 m/seg as a significant change in PWV. According to this definition, 41.8% of patients showed a significant improvement in PWV. In a logistic multivariate regression analysis, age (OR: -1.0; $p < 0.0001$), systolic BP reduction, considered as tertiles (OR: 4.5 and 8.8; $p < 0.001$), initial PWV (OR: 3.5; $p < 0.001$) and waist diameter (OR: -0.97; $p < 0.01$) were independently associated with a decrease of PWV. Antihypertensive treatment was analyzed, angiotensin receptor antagonists showed a trend to improve PWV, but the association did not reach statistical significance ($p = 0.07$).

Discussion: The Guidelines of the European Society of Hypertension underline the importance of identifying subclinical target organ damage to stratify cardiovascular risk. But beyond stratification at baseline, monitoring treatment has also been recognized as an important task in hypertension. Regression of left ventricular hypertrophy and microalbuminuria have shown to be associated with improvement in the prognosis of affected patients. But to which extent vascular damage, measured as PWV, is capable of regression has yet to be elucidated. Our study included naïve patients without previous antihypertensive treatment. Although age seems to be the most important factor that determines changes in PWV, our study shows that adequate antihypertensive treatment is able to reduce vascular damage, at least at initial stages of the natural history of hypertension. Treatment with ARB did not reach statistical significance, but our results suggest that there might be potential differences in the reduction of PWV between groups of antihypertensive drugs.

Conclusions: In untreated hypertensive patients, age and abdominal obesity are negative predictors of changes in PWV, whereas BP treatment and high baseline values of PWV seem to favour a significant decrease of PWV during the first year of treatment.

RV-89
CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Objectives: Chronic kidney disease (CKD) is an important cardiovascular risk factor. The presence of additional factors worsens the patient's prognosis, not only at a cardiovascular level, but also at the renal pathology itself. Here we review the prevalence of the main cardiovascular risk factors.

Material and method: Descriptive review of the medical records of patients with glomerular filtration (CKD-EPI) < 30 ml/min seen in nephrology consultations between the 1/1/12 and the 30/4/12. Variables analyzed: sex, age, toxic habits, history of cardiovascular disease, cause of the CKD, creatinine, CKD-EPI, blood pressure, body mass index (BMI), LDL, TG, hemoglobin, presence of DM and HbA1c, leucocytes, ferritin, C-reactive protein (CRP), 25-OH-vitamin D, PTH and proteinuria.

Results: 60 patients were included, with median age of 72.47 years (SD 13.88), 51.7% of them male. The presence of the items evaluated was distributed in the following way: Smoking status: current 15%, never 36.7% following 35%, unknown 13.3%. Drinking habit: current 8.3%, never 61.7% following 11.7%, unknown 18.3%. Background: Stroke-TIA 15%, ischemic heart disease 25%, heart failure 18.3%, peripheral arterial disease 20%. Cause of CKD: multifactorial 21.7%, DM 20%, nephrosclerosis 20%, unknown 18.3%, glomerular nephropathy 6.6%, polycystic kidney disease 5%, vascular disease 5%, IgA 1.7%, other 1.7%. Mean creatinine 2.83 mg/dl, CKD-EPI 21.31 mg/dl. Mean proteinuria (Pr u/Cr u) 2.29. Elevated PTH in 91.4% (mean 207.95 pg/ml). BMI > 25% 82.7%, mean 29.4. Blood pressure: mean 136.14/72.49 mmHg (SD 22.88/16.75 mmHg). Lipid control: LDL 97.19 mg/dl, TG 139.85 mg/dl. Diabetes mellitus in

50%. In these, mean HbA1c 6.82 and mean baseline glucose 137.47 mg/dl. 25-OH-vitamin D deficient (< 15 ng/ml) in 45.6% of patients with a mean of 17.98 ng/ml. Anemia in 51.7%. Elevated acute phase reactants: leukocytosis in 16.7%, hiperferritinemia in 69%, elevated CRP in 44.8%.

Conclusions: There is a high prevalence of inadequate control of cardiovascular risk factors. A better control may help to reduce the comorbidity of our patients and slow the progression of the renal disease.

RV-90
ATHEROSCLEROSIS, ANTIPHOSPHOLIPID SYNDROME AND HYPERHOMOCYSTEINEMIA IN RETINAL THROMBOSIS

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Objectives: Retinal thrombosis is the second cause of retinal vascular disease, after diabetic retinopathy. This affects 2.1 of every 1,000 people aged 40 years and 5.4 of every 1,000 people over 64. The average age of presentation is 65 years. The existence of retinal occlusion increases cardiovascular mortality. This is a prospective study of retinal thrombosis and precipitating factors in a tertiary hospital.

Material and method: We included all patients diagnosed with retinal occlusion by the Ophthalmology Service for 38 months in our hospital. A standardized questionnaire was conducted in a computerized database that included clinical data, analytical studies, lupus anticoagulant, antiphospholipid antibodies, serum homocysteine, electrocardiogram and Doppler ultrasound of supra-aortic trunks. In patients receiving anticoagulant therapy for atrial fibrillation 7 (7.14%) could not complete the study of hipercoagulable state.

Results: The series consisted of 98 patients (56 men and 42 women) aged between 40 and 88 years (66 ± 10). Arterial hypertension affected 67 patients (68%), dyslipidemia in 67 (68%), diabetes mellitus in 27 (27%) and smoking in 43 (43%) considering active smokers and former smokers. Retinal involvement was peripheral in 69 (67 in temporal region and 2 in nasal) and central in 29. The lupus anticoagulant appeared in 6 patients (6.4%) and antiphospholipid antibodies in 6 (6%). Of the 9 patients with antiphospholipid syndrome, in 3 were positive both and the remaining 6 only one of them. Hyperhomocysteinemia (defined as homocysteine levels above 14.9 µmol/L) occurred in 24%. The Doppler ultrasound of supra-aortic trunks showed atheromatous plaques in 42%, moderate or severe stenosis in 4% and no alterations in 54%.

Discussion: The retinal occlusion is an important cause of blindness in adults. Most patients have arterial hypertension, dyslipidemia, diabetes mellitus or other vascular risk factors and therefore the retinal thrombosis is a manifestation of atherosclerosis. The hyperhomocysteinemia and antiphospholipid syndrome can cause arterial and venous thrombosis, although no prospective studies in retinal occlusion.

Conclusions: The arterial hypertension, dyslipidemia, diabetes mellitus and other vascular risk factors causing atherosclerosis are the main cause of retinal thrombosis. The presence of atherosclerotic plaques in the Doppler ultrasound of supra-aortic trunks is a sign of atherosclerotic involvement of these patients. We recommended for all patients with retinal thrombosis performed in conjunction with the study of cardiovascular risk factors, the determination of homocysteine, lupus anticoagulant and antiphospholipid antibodies.

RV-91
DOES VALSARTAN IMPROVE ENDOTHELIAL DYSFUNCTION AND VASCULAR MICROINFLAMMATION?

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Objectives: Renin-angiotensin system (RAS) plays an important role in the development of hypertensive and vascular diseases. It has been shown in several studies that RAS activation makes endothelial dysfunction and inflammation. In this study, we aimed to investigate the effects of valsartan molecule as one of angiotensin receptor blockers (ARB), on vascular endothelial dysfunction and microinflammation in patients with essential hypertension.

Material and method: 34 patients who are newly diagnosed with essential hypertension and valsartan treatment was started in internal medicine and cardiology outpatient clinics, were included in the study. All of the patients 40 years old or over. None of the patients had a co-morbid disease (DM, CAD, CKD, stroke, malignancy etc.). Valsartan (80-320 mg/day) were given a single daily dose in the morning on an empty stomach. ABP measurements were performed with two weeks interval and appropriate dose titration was done. VWF as a marker of endothelial dysfunction and hscrp, pentraxin 3(Ptx3) for vascular microinflammation were studied.

Results: After twelve-week follow-up, a total of 28 patients (M: 6, F: 22) (stage-1: 13 patient, stage-2: 15) who were received only valsartan, were evaluated. Four patients whose ABP measurements were not regulated with valsartan treatment, two patients that refused to continue, were excluded from the study. ABP values were within normal limits in all patients. Marked improvement in the level of vWF was observed in all patients (change: 69% reduction, p = 0.000). Ptx3 and hscrp levels were decreased. But, while the fall in the value of ptx3 was significantly, hsCRP fall was not (respectively of change: 53%, p = 0.000 and change: 4%, p = 0.738).

Discussion: Endothelial dysfunction is an effective marker for detection of cardiovascular disease, detects prognosis and has a close relationship with in the development of atherosclerosis. Crp is the most commonly used marker to assess inflammation. PTX3 is synthesized from extrahepatic tissue, it is considered to be a more sensitive indicator of local inflammation. In our study; the improving effects of valsartan treatment on endothelial dysfunction and microinflammation was detected. A reduction of 69% were found in VWF values compared to pretreatment, that was significantly. Also, a reduction of 53% compared to pretreatment value of ptx3 and a reduction of 4% in hsCRP were observed. Considering the positive results of RAS blockage on cardiovascular and systemic effects; it can be said that the therapies aimed this blockage are more rational.

RV-92
CARDIOVASCULAR RISK FACTORS AND LEVELS OF 25-OH-VITAMIN D IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Objectives: The presence of chronic kidney disease (CKD) is an important cardiovascular risk factor. Vitamin D levels have known

effects on bone remodeling, but in the last years plenty of studies have arisen evaluating the relation between deficient levels and higher morbid-mortality (both cardiovascular and global). Here we review the relation between deficient levels of 25-OH-vitamin D and other factors, specially the cardiovascular risk ones.

Material and method: Descriptive review of medical records of patients with glomerular filtration (CKD-EPI) < 30 ml/min seen in nephrology consultations between the 1/1/12 and the 30/4/12. Variables analyzed: sex, age, toxic habits, history of cardiovascular disease, cause of the CKD, creatinine, CKD-EPI, blood pressure, body mass index (BMI), LDL, TG, hemoglobin, presence of DM and HbA1c, leucocytes, ferritin, c-reactive protein (CRP), 25-OH-vitamin D, PTH and proteinuria.

Results: 60 patients were included, with median age of 72.47 years (SD 13.88), 51.7% of them male. The mean 25-OH-vitamin D was 17.98 ng/ml (SD 9.43 ng/ml). 45.6% patients had levels below 15 ng/ml. Statistical relation (or values closed to significance) was observed with (see table).

Conclusions: Our patients with advanced CKD have a high prevalence of deficient vitamin D levels -In our review we have observed that patients with lower levels of 25-OH-vitamin D have higher BMI, more frequent history of stroke or TIA and tend to have higher levels of proteinuria.

Table (RV-92)

	p	25-OH-vitamina D < 15 ng/ml	25-OH-vitamina D > 15 ng/ml
History of stroke or TIA	0.035	26.92%	6.45%
BMI	0.048	27.22	30.28
Protein (urine)/ creatinine (urine)	0.055	3.36	1.57

RV-93
STANDARDIZED MORTALITY RATIO (SMR) IN A SPANISH COHORT OF TYPE 2 DIABETIC PATIENTS

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Objectives: It has been reported that diabetic subjects are at a greater risk of mortality. Our aim was to compare the mortality rate of type 2 diabetic patients with the mortality rate of the background population.

Material and method: This is a prospective longitudinal study. Patients with type 2 diabetes from Alcañiz area (Spain) were included from 1994 to 1998. The life status was ascertained on 2011. Date and cause (vascular or non-vascular) of death was obtained from hospital records and death certificates. Mortality rates are expressed per 1,000 patient-years. Age specific excess of mortality, compared with the background population, was assessed in terms of standardized mortality ratio (SMR).

Results: 463 type 2 diabetic patients (281 women and 182 men) were included. The mean age at baseline was 65 years (SD 9.2) and the mean diabetes duration was 10.5 years (SD 7.6). Prevalence of macrovascular disease at baseline was 21.4%. The median follow-up was 13.1 years. 209 patients died during the follow-up, with a mortality rate of 38.9/1,000 (35.7 women and 44.3 men). 76 deaths were of vascular cause, with a cardiovascular mortality rate of 13.4/1,000 (12.8 women and 14.4 men). The SMR for all causes of dead was 2.6 (95% Confidence interval (CI) 1.6-3.9). The highest SMRs were for the youngest patients (SMR = 3.5 in patients < 50 years old versus SMR = 1.96 in patients > 80 years old).

Conclusions: In our population, type 2 diabetes mellitus significantly increase mortality risk. The risk is higher in younger people.

RV-94
CHARACTERIZATION OF PATIENTS WITH CEREBROVASCULAR ACCIDENTS ADMITTED TO AN INTERNAL MEDICINE WARD

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Objectives: Characterization of patients with cerebrovascular accidents admitted to an internal medicine ward.

Material and method: The authors present a retrospective evaluation of patients admitted to the Internal Medicine Department of our Hospital with the primary diagnosis of cerebrovascular accidents (CVA) during a one-year period from 01/01/2011 to 31/12/2011. Each clinical process was individually assessed.

Results: The patients admitted were characterized according to sex, age, type of CVA, presence of conventional risk factors (known and diagnosed during admission), use of anti-platelet aggregation or anticoagulation, days of admission, in-hospital mortality, and morbidity at discharge.

Discussion: Cerebrovascular disease is a leading cause of mortality and morbidity in Europe and is especially prevalent in Portugal. CVA are classified according to mechanism of injury into two large groups: ischemic and hemorrhagic. Ischemic disease is by far the most prevalent and largely preventable by controlling underlying conventional risk factors such as diabetes, hypertension, lipid disorders, arrhythmias (atrial fibrillation) and smoking. The appropriate use of anti-platelet aggregation or oral anticoagulation is also important in prevention of CVA.

Conclusions: The authors hope with this presentation to contribute in some way to a better understanding of CVA in our district, alerting doctors specifically to the need of aggressively controlling underlying risk factors, not only with life-style changes but also with appropriately prescribed medications.

RV-95
RELATIONSHIP BETWEEN GENE VAV2 (VAL 584 MET POLYMORPHISM) AND SYSTOLIC BP

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Objectives: Essential hypertension affects more than 30% of the population of Western European countries. The high levels of systolic blood pressure increases the risk of stroke, myocardial infarction, nephropathy and peripheral vascular disease. The systolic high BP have a multifactorial etiology in the determining factors are genetic factors, have been proposed many candidate genes in association studies, and the search for new genes is focused on understanding the pathophysiology of this disorder and design of future treatments. In our study we proposed the VAV2 gene association with hypertension. We have studied a patient population with hypertension and the relationship between BP systolic values obtained and the Val584Met polymorphism of VAV2. The gene encoding the VAV-2 is located on chromosome 9, position 9q34.1. Polymorphism was studied by a single nucleotide change (SNP) gene located in the promoter region, at position 584 with a change C for T (rs 602,990).

Material and method: We studied 298 patients from a hypertension unit integrated Into M. Internal. We studied 155 men and 143 women. Were obtained from BP taken the ABPM diagnosis, have been used for 24-hour mean values to make the classification and analysis. We have excluded all patients with primary hypertension following of the protocol of the unit. Amplification reactions were performed in automatic thermal cycler (Step One Plus® Applied Biosystems) using TaqMan® probes. Statistical analysis was performed using the SPSS software.

Results: The systolic BP distributed by sex showed the following results: Men: 155 with mean of systolic BP: 141.49 mmHg and DS: 27.82 Women: 143 with mean of systolic BP: 143.69 mmHg and DS: 25.96. We obtained a sample of 118 individuals without hypertension (genotyping results: TC: 67, TT: 29, CC: 22). Individuals with high levels of systolic BP have been classified into three categories with the following results grade 1: 108 individuals (genotyping results: TC: 57, TT: 29, CC: 22), hypertension grade 2: 46 individuals (genotyping results: TC: 19, TT: 15, CC: 12) and hypertension grade 3: 26 individuals (genotyping results: TC: 14, TT: 4, CC: 8). The study of statistical association between systolic BP in hypertensive patients and hypertensive patients with the genotype results, has shown no statistical association. Chi squared test: 0.476.

Conclusions: No statistical association was found between systolic blood pressure and VAV-2 polymorphism Val584Met. The findings in animal models, in which we have based our studies encourage further studies with more extensive databases and data associated diseases.

RV-96
INTERPRETATION OF BLOOD PRESSURE VALUES OBTAINED IN A COMMUNITY PHARMACY BY THE PHARMACISTS. FARMAPRES PROJECT

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Objectives: To study how a pharmacist take decisions depending on blood pressure (BP) measurements at the community pharmacy (CPh) on real-life conditions.

Material and method: As a part of a specific survey, participants (39 CPh, 49.4% of participation) were asked about BP values defining "Normal BP", "Uncontrolled BP" and "BP values for remission to a medical service".

Discussion: There is a very important heterogeneity interpreting BP values with very high subjective criteria. Pharmacists are stricter when considering DBP than systolic BP. This is especially true when defining "normotension" or considering values "for remission". When defining "uncontrolled BP" both components are equally considered.

Conclusions: There is a great heterogeneity and subjectivity when BP values are interpreted by community pharmacists. Probably a better specific formation could imporve the utility of CPh in the control of BP.

RV-97
ATTITUDES AND ACTIONS OF THE COMMUNITY PHARMACIES OF ALCOY'S HEALTH DEPARTMENT FOR THE REMISSION OF UNCONTROLLED HYPERTENSIVES TO MEDICAL SERVICES. FARMAPRES-CV PROJECT

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Objectives: In spite of a large number of clinical guidelines for the remission of uncontrolled hypertensive patients from the community pharmacy (CPh) to medical services, nobody knows what actions are really being taken.

Material and method: Since November 2011 until February 2012, a specific survey was sent to all CPh (n = 79) of Alcoy's Health Department, obtaining the participation of 49.4% of them.

Results: In the opinion of all participants CPh have an important/very important potential for the improvement of the control of hypertension (HT). The reasons for that are expressed in table 1. When the CPh think a patient has elevated BP (very heterogeneous and subjective criteria for it), a second measurement use to be done (87.2%), generally (63%) applying the same system. In 95% of occasions CPh refer the patient to a medical service: 44% to the Hospital Emergency Department (HED) or Primary Care Health Center (PCHC) depending on the degree of BP elevation; 40% always to PCHC and 8% always to the HED. The remission is made after giving non-pharmacological advice from 41% of CPh (83% about diet, 25% about physical activity, and 85% about fulfillment), with 5% adding pharmacological advices. When primary care physicians and nurses are asked about the remission of patients from CPh because of elevated BP, 60% think that they use to be incorrectly remitted, mainly because of an overestimated measurement and alarmism

Table 1 (RV-96). Which BP values you consider as "normal"?

ESH BP Category	Grade 3 HT ≥ 180/ 100 mmHg	Grade 2 HT 160-179/ 100-109 mmHg	Grade 1 HT 140-159/ 90-99 mmHg	High-Normal 130-139/ 85-89 mmHg	Normal 120-129/ 80-84 mmHg	Optimal < 120/ < 80 mmHg
DBP	0	0	46	26	10	18
SBP	0	0	18	13	49	20

Table 2 (RV-96). Which BP values you consider as "bad control"?

ESH BP Category	Grade 3 HT ≥ 180/ 100 mmHg	Grade 2 HT 160-179/ 100-109 mmHg	Grade 1 HT 140-159/ 90-99 mmHg	High-Normal 130-139/ 85-89 mmHg	Normal 120-129/ 80-84 mmHg	Optimal < 120/ < 80 mmHg	Other criteria
DBP	6	11	77	6	0	0	12
SBP	6	15	64	9	6	0	20

Table 3 (RV-96). Which BP values you consider for "remission"?

ESH BP Category	Grade 3 HT ≥ 180/ 100 mmHg	Grade 2 HT 160-179/ 100-109 mmHg	Grade 1 HT 140-159/ 90-99 mmHg	High-Normal 130-139/ 85-89 mmHg	Normal 120-129/ 80-84 mmHg	Optimal < 120/ < 80 mmHg	Other criteria
DBP	26	58	11	5	0	0	28
SBP	29	14	51	3	3	0	40

induced by the pharmacist to the patient. On the other hand, a significant percentage of CPh think the primary care physician does not adequately value their role in the management of BP. Finally, table 2 illustrates the potential impact on HED consultations of an improvement in the criteria for remissions from CPh considering that 40 to 45% of patients attended because of elevated BP are not referred from PCHC.

Discussion: CPh use very heterogeneous and subjective criteria for remission of uncontrolled hypertensive to medical services. They usually repeat the BP measurement and give non-pharmacological advices, although 5% of them also give pharmacological advices. There is a strong rejection from PCHC.

Conclusions: There are not objective and uniform criteria for the remission of uncontrolled hypertensive from CPh. Distrust is common between community pharmacists and PC professionals. An improvement in the remission criteria could have a significant impact.

RV-99
ADIPOCYTE FATTY ACID BINDING PROTEIN IS ASSOCIATED WITH SUBCLINICAL ATHEROSCLEROSIS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Objectives: To study if circulating fatty acid-binding proteins 4 (FABP4) plasma levels is a possible marker of metabolic risk in SLE patients.

Material and method: Sixty-nine consecutive patients with SLE and 34 non-SLE age matched controls were recruited for the study. Fasting venous blood samples were collected on the same day as the measurements of cIMT were performed. Total plasma lipids and the lipoprotein subclasses distribution was analysed by nuclear magnetic resonance spectroscopy.

Results: We did not find differences regarding FABP4 plasma levels between the SLE patients and the control group. The FABP4 plasma levels were identical in both SLE and control groups. In the SLE group FABP4 was associated with the presence of insulin resistance, atherogenic dyslipidemia measured by MNR and the presence of subclinical atherosclerosis. In multivariate analyses FABP4 was associated with c-IMT independently of inflammatory status.

Discussion: Patients affected by SLE show an increase of cardiovascular mortality and morbidity although this accelerated atherosclerosis cannot be entirely explained by the traditional cardiovascular risk factors. The presence of some metabolic disturbances as atherogenic dyslipidemia and metabolic syndrome seem to be more prevalent due to inflammatory mechanisms. Fatty acid-binding proteins (FABPs) are cytosolic proteins that function as chaperones and regulate fatty acid uptake and intracellular transport. The circulating levels are associated to adiposity, insulin resistance, metabolic syndrome, diabetes and cardiovascular diseases, and it's considered a marker of metabolic risk I general population. In SLE patients we confirm these previous results and we postulate that FABP4 levels in SLE could be a useful clinical biomarker of metabolic and cardiovascular risk in this usually young and non-obese patients.

Conclusions: FABP4 is involved in the metabolic disturbances in SLE patients affecting lipid metabolism and insulin resistance. Circulating FABP4 is a determinant of subclinical atherosclerosis in this population independently of the inflammatory status.

RV-100
AMBULATORY BLOOD PRESSURE MONITORING (ABPM) IN HYPERTENSIVE PATIENTS TREATED IN HOSPITAL DE TORREJÓN. FIRST SIX MONTHS EXPERIENCE

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Objectives: Blood pressure (BP) measurement made by a physician generates a so-called warning reaction in most patients

Table 1 (RV-97). What can CPh offer for a better control of hypertensives? (%). N = 27

Proximity	69
Flexibility	35
Less reactive HT	23
Treatment counseling	19
Detection of new HT	11
More quality of life	4
Low cost	4

Table 2 (RV-97)

	2007	2008	2009	2010	2011
Total consultations	129	136	137	150	143
Consultations from Primary Care (PC)	53	53	56	66	64
Other origins (Home, CPh…)	41%	40%	41%	44%	45%

that provokes an increase in BP. Ambulatory Blood Pressure Monitoring (ABPM) can help to minimize the "white coat" effect and improve the accuracy of the office BP measurement. The aim of this study is to analyze the ABPM readings in patients treated in Hospital de Torrejon during its first six operating months.

Material and method: ABPM was perfomed taking blood pressure measurements over a 24 hour period. We considered as valid ABPM those with a percentage of correct measurements readings over 70%. A minimum of 14 measurements during the daytime period, and 7 measurements in nocturnal period were required as well. We calculated average values for systolic blood pressure (SBP), diastolic blood pressure (DBP) and heart rate (HR). Regarding BP circadian rhythms, we consider the following patterns: dippers (defined as those patients with average nocturnal BP 10 to 20% lower than daytime values), extremely dippers (defined as those patients with average nocturnal BP > 20% lower than daytime values), nondippers (failure of the BP to fall by at least 10% during sleep) and risers (nocturnal SBP higher than daytime values).

Results: ABPM was performed in 46 patients, 25 males and 21 females(45.6%), with 8 patients being 20 to 39 years old (17.3%), 15 patients (32.6%) being 40 to 59 years old and 23 patients(50%) over 60. Most patients (28 patients, 60.8%), underwent ABPM to study changes in BP circadian rhythm, 15 patients (32.6%) underwent monitoring to evaluate antihypertensive medication effectiveness, and in 3 cases the aim was to diagnose refractory hypertension. 14% of patients (7) presented white coat hypertension and the rest, 39 patients, (86%) were real hypertensive patients. In this group, 25 patients (64.7%) had a poor clinical control, with average BP values being 146.7 / 81.1 mmHg. 91% of patients (35) were on antihypertensive therapy (46.3% on monotherapy and 53.7% on combinations of two or more drugs). Cardiovascular risk evaluation was made, finding that 42.7% of the patients had a high or very high cardiovascular risk, 36.3% of the patients had a moderate risk and 21% of the patients had a low risk. 18% of the patients had no other cardiovascular risk factor than hypertension, while 35.8% had a second risk factor, 20.5% had a third risk factor and 25.7% had 3 or more additional risk factors. Stroke was the most frequent vascular disease antecedent (38% patients), followed by ischemic heart disease (28%) and peripheral arterial disease (13%). Concerning the circadian rhythm, it was observed that 6% of the patients had a rising pattern, 22.6% had a nondipping pattern, 69.4% were dippers and 2% were extremely dippers.

Discussion: 1. In our study, we found that most hypertensive patients are males, older than 60 years old, presenting with ahigh or very high cardiovascular risk. They have at least one more cardiovascular risk factor than hypertension, with a previous history of vascular disease. 2. Most hypertensive patients have a suboptimal clinical control of BP (grade 1) despite being treated with drugcombinations. 3. We found white coat hypertension in 14% of our patients.

Conclusions: ABPM using a device worn by the patient, taking blood pressure measurements away from external factors, such as white coat effect, improves readings accuracy and makes them similar to the real pressure in our hypertensive patients.

RV-102
PREDICTORS OF OUTCOME IN STABLE OUTPATIENTS WITH PERIPHERAL ARTERY DISEASE

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Objectives: Even in the absence of a history of coronary artery (CAD) or cerebrovascular (CVD) disease, patients with peripheral artery disease (PAD) have a similar risk to die from a cardiovascular cause as those with previous CAD or CVD. However, despite its frequency and severity, there is scarce information on the predictors of outcome (i.e., subsequent ischemic events, or death) in stable outpatients with symptomatic PAD. A better understanding of the factors influencing the risk for subsequent ischemic events may be helpful for better targeting of existing treatments. Background: the aim of the current study was to identify independent predictors of outcome in patients with peripheral artery disease (PAD).

Material and method: The Factores de Riesgo y ENfermedad Arterial (FRENA), is a Registry was initiated in March 2003 to prospectively record the current clinical management and outcome of patients with arterial disease in Spain. It is an ongoing, multicenter, observational registry of consecutive patients designed to gather and analyze data on treatment patterns and outcomes in stable outpatients with symptomatic ischemic disease of the heart, brain, and/or major peripheral arteries. Participating hospitals in the FRENA registry prospectively enrolled consecutive outpatients with symptomatic artery disease with at least one recent (< 3 months prior to enrollment) episode of CAD (manifesting as angina or acute coronary syndrome); CVD (manifesting as transient ischemic attack or ischemic stroke); or PAD (either intermittent claudication with an ankle-brachial index < 0.9, or previous vascular intervention or limb amputation for PAD).

Results: As of February 2011, 1205 patients with PAD were recruited, of whom 604 (50%) had Fontaine stage IIa; 336 (28%) Fontaine stage IIb; 121 (10%) Fontaine stage III; and 144 (12%) had Fontaine stage IV. Over a mean follow-up of 13 months, 172 patients (14%) developed subsequent ischemic events (myocardial infarction 40, stroke 28, disabling claudication/critical limb ischemia 115), and 83 patients (6.9%) died. In patients with Fontaine stage IIa, the incidence of MI was similar to that of disabling claudication/critical limb ischemia: 2.51 (95%CI: 1.58-3.81) vs 2.89 (95%CI: 1.87-4.26) events per 100 patient-year, respectively. The mortality rate ranged from 2.89 (95%CI: 1.87-4.26) deaths per 100 patient-year in patients with Fontaine stage IIa to 15.7 (95%CI: 1.06-22.5) in those with Fontaine stage IV. On multivariate analysis, patients with cancer, diabetes, Fontaine stages III or IV, systolic blood pressure (BP) levels < 130 mmHg, renal insufficiency, and those receiving anticoagulants were at an increased risk to die. Conversely, patients receiving statins were at a lower risk.

Conclusions: 1. In patients with Fontaine stage IIa, the incidence of critical limb ischemia is similar to that of MI. 2. Patients with cancer, diabetes, Fontaine stages III-IV, renal insufficiency, and those receiving anticoagulants were at an increased risk to die. 3. Patients receiving statins were at a lower risk to die. 4. Unexpectedly, patients with mean systolic BP levels < 130 mmHg had a 3-fold higher risk to die than those with levels > 130 mmHg.

RV-103
PREVALENCE OF TYPE-2 DIABETES MELLITUS AMONG INPATIENTS, METABOLIC CONTROL AND TREATMENT IMPLEMENTATION AT DISCHARGE

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Objectives: Type-2 diabetes mellitus (T2DM) must have increased among inpatients in the later years due to the fact that our patients have a high comorbidity. The main aim of our study was to know the prevalence of T2DM among hospitalized patients in our medical center. In addition, we wanted to determine metabolic control's degree and to evaluate the implication of physicians on hypoglycemic treatment optimization once the patient has been discharged home.

Material and method: We included all patients admitted, from March 13th to 15th 2012, at the internal medicine department in the Juan Ramón Jimenez hospital, Huelva, Spain. This is a second level hospital with just over 600 beds. We also included some general surgery-assigned patients hospitalized in our ward. We evaluated the patient's medical records using a pre-designed protocol. Glycated hemoglobin (HbA1c) was obtained from all patients. At discharge time, hypoglycemic treatment recommendations were evaluated and optimization was performed on patients with HbA1c value greater than 7.5%. For data analysis, frequency charts were created, and the prevalence with confident interval (95%) was calculated.

Results: A total of 219 patients were hospitalized in our department during the established period. T2DM prevalence ratio (84 patients) was 0.384 (95%CI: 0.448-0.320). The majority of patients were assigned to the internal medicine department (51.2%), followed by cardiology (10.7%), pneumology (8.3%) and neurology (6%) as main specialty groups. Intrahospitalary mortality rate was 6% (5 patients). In the diabetic patient's descriptive analysis, we found a mean age of 74.5 years (SD 9.8), being 56% (47) of them males. The main characteristics found were: anemia (23.8%), chronic kidney disease (29.8%), arterial hypertension (82.1%), heart failure (41.7%), obesity (26.2%), diabetic neuropathy (6%), and diabetic retinopathy (19%). The median for diabetes progression was 9.5 years (5.2–15). Regarding the mean laboratory test parameters, diabetic patients had: hemoglobin 11.04 mg/dl (SD 1.9), creatinine 1.4 mg/dl (SD 1.02), urea 77.5 (SD 51), and an HbA1c of 7.43% (SD 1.54) with a median of 7.1 (6.2-8.3). A total of 32 patients (40.5%) presented with HbA1c greater than 7.5% (excluding the laboratory test results from the 5 deceased patients). Specific recommendations for diabetes mellitus treatment optimization at discharge were done in 25 diabetic patients (78%).

Discussion: T2DM presents with a high prevalence among inpatients because of elevated comorbidity, this has a direct impact on morbi-mortality. Once optimization for intrahospitalary glycemic treatment has been established, the next step would be to evaluate the patient's previous metabolic control by systematic determination of HbA1c, in order to make changes and recommendations in treatment at discharge.

Conclusions: T2DM presents with a high prevalence among inpatients because of elevated comorbidity, this has a direct impact on morbi-mortality. Once optimization for intrahospitalary glycemic treatment has been established, the next step would be to evaluate the patient's previous metabolic control by systematic determination of HbA1c, in order to make changes and recommendations in treatment at discharge.

RV-104
A PHYSICAL ACTIVITY INTERVENTION STUDY FOR THE IMPROVEMENT OF CARDIOVASCULAR RISK FACTORS IN ADULTS FROM A MEDITERRANEAN POPULATION

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Objectives: Clinical and epidemiological studies suggest that physical activity at any age is associated with an improvement of various cardiovascular risk factors: hyperglycemia, dyslipidemia, high blood pressure, Body Mass Index (BMI), and abdominal obesity. The extent of the intervention is a limitation in the evaluation of the results of such studies. Our aim was to carry out a pilot study to evaluate the effect of exercise in reducing these parameters, through a physical activity assisted by a physical trainer.

Material and method: We have carried out a pilot study consisting of a physical activity intervention for 7 weeks in overweighed adults (BMI ≥ 25 kg/m^2). The intervention consisted of walking on an area of land without tilt. Participants performed two practice sessions per week, one hour/day, supervised by a technician. Initial results on the test heart rate recovery were used to delimited margins of work, between 65 and 80% of maximum heart rate, individualized for each participant. To estimate body composition a scale (Tanita BC-420-S) was used. Biochemical, blood pressure and the anthropometric data were obtained at baseline and after intervention.

Results: We included 52 participants 65% women, mean age 46.6 ± 18 y. with no differences by sex (p = 0.479). The mean BMI of the population was 27.97 ± 5.3 kg/m^2 with no differences by gender (p = 0.763). Mean fat mass was 24.9 ± 11 kg with no differences between men and women (p = 0.410). Visceral fat and waist were significantly higher in men (p > 0.05). The mean of fast glucose (94.4 ± 10.2 mg/dL), total cholesterol (213.5 ± 46.3 mg/dL), triglycerides (110.4 ± 44.9 mg/dL) and LDL-chol (138.0 ± 35.4 mg/dL) did not differ by gender, however, the HDL-chol was higher in women (65.0 ± 15.7 mg/dL, p = 0.003). Mean blood systolic and diastolic pressures were 129 ± 15.5 mmgHg and 79.6 ± 9.53 mmHg, respectively, with no differences by gender (p > 0.05). After the intervention, all anthropometric and biochemical parameters studied were significantly decreased (p < 0.001), with no difference by sex (p > 0.05).

Conclusions: An easy physical activity like walking twice a week produces visible benefits even a short-term.

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RV-105
SENSITIVITY AND SPECIFICITY OF DIGITAL PULSE OXIMETRY AS A DIAGNOSTIC TEST FOR PERIPHERAL ARTERIAL DISEASE

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Objectives: Ankle-brachial index is the gold standard test for office diagnosis of peripheral arterial disease, but it requires special equipment and skills of the examiner. We evaluated the diagnostic performance of pulse oximetry as an easier method for screening of peripheral arterial disease.

Material and method: We carried out ankle-brachial index measured by handheld doppler (Minidop ES-100 VX®, Hadeco Inc.,

Japan) and handheld digital pulse oximetry (APEX Medical Corp®, SA210, Taipei, Taiwan) in 110 patients admitted to our Internal Medicine Department between March and May 2012. The ankle-brachial index was considered abnormal if it was less than 0.9. Pulse oximetry of the toes was considered abnormal if the SaO_2 was more than 2% lower from the finger or on 30 cm elevation of the foot. Patient's inclusion criteria were age greater than 50 years old with an additional risk factor (smoking, hypertension, diabetes mellitus or hypercholesterolemia) and given informed consent. We excluded patients with known history of any vascular disease and patients with limb amputations or with conditions precluding clinical examination. We calculated sensitivity and specificity of digital pulse oximetry used as index test compared to ankle-brachial index estimated by handheld doppler as reference method.

Results: The prevalence of peripheral arterial disease was 9.50% (95% confidence interval [CI]: 6.14-14.40). Pulse oximetry correctly identified 3 out of 21 patients with ankle-brachial index below 0.9 (Sensitivity 14.28%; 95%; [CI]: 3.77-37.36) and correctly ruled out the disease in 134 out of 199 patients (Specificity 67.34%; 95% [CI]: 60.29-73.70). Agreement between pulse oximetry SaO_2 gradient and ankle-brachial index categories was very low (Kappa = -0.09).

Discussion: Identifying patients admitted to internal medicine departments with unknown vascular diseases would allow to optimize treatment to achieve proposed targets of control. Previous studies showed a prevalence of undiagnosed peripheral arterial disease of 29% in elderly patients admitted to internal medicine departments. The ankle-brachial index used as reference method for diagnosis can not be easily implemented as a routine test because it is time consuming and requires skills of the examinator. Pulse oximetry is a widely available device at hospital nurse stations and may facilitate the screening for vascular disease. We hypothesized that patients with peripheral vascular disease will show a decrease in SaO_2 from the toes to the fingers. Nevertheless the diagnostic performance of digital pulse oximetry as screening for peripheral vascular disease was very poor. Additional methods should be tested in order to facilitate the diagnose of this highly prevalent condition in patients admitted to internal medicine departments.

Conclusions: Pulse oximetry based criteria yield a high proportion of false-negative test for the diagnosis of unknown peripheral vascular disease.

RV-106
DIETARY FAT MODULATES PRO-INFLAMMATORY GENE EXPRESSION IN INSULIN-RESISTANT PATIENTS WITH METABOLIC SYNDROME

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Objectives: Metabolic syndrome (MS) is a public health problem with an increasing prevalence associated with unhealthy lifestyles and which main feature is insulin resistance (IR). Its etiology is related to a pro-oxidative and pro-inflammatory environment, produced by a high intake of nutrients, especially saturated fat. Chronic inflammatory processes may decrease insulin sensivity and are crucial in the pathogenesis of MS. Objectives: to study the differential effect of dietary fat on the expression of pro-inflammatory genes in insulin-resistant and non insulin-resistant patients with MS.

Material and method: 75 patients from the LIPGENE cohort were divided into two groups according to HOMA (homeostasis model assessment IR): HOMA < 3.2 and HOMA ≥ 3.2. Participants were randomized to receive one of four dietary intervention periods for 12 weeks: 1. Saturated fat diet (HSFA) 2. Monounsaturated fat diet (HMUFA) 3. Low fat, high carbohydrate (CH) diet (LFHCH) 4. Low fat, high CH with 1.24 g/day of polyunsaturated n-3 (LFHCH n-3). Blood samples were taken at fasting, before (pre-intervention) and after (post-intervention) dietary intervention period. We determined the expression of MMP-9 (metalloproteinase-9), TNF-α (tumor necrosis factor-α), IL (interleukin)-6, IL-1β and IL-8 genes by quantitative PCR.

Results: In pre-intervention period we observed lower levels of MMP-9 and TNF-α ($p < 0.05$) genes expression in patients with HOMA < 3.2 compared to those with HOMA ≥ 3.2. In post-intervention period we found lower levels of MMP-9 gene expression after HMUFA diet compared with HSFA diet ($p < 0.05$) in patients with HOMA index ≥ 3.2. Moreover, an increase of TNF-α gene expression was observed in patients with HOMA index ≥ 3.2 after HSFA and LFHCH diets compared with HMUFA diet ($p < 0.05$). Consumption of HMUFA diet induced lower IL-8 gene expression, compared with LFHCH and LFHCH-n3 diets, in patients with HOMA index ≥ 3.2. There were no significant differences in the rest of analyzed genes.

Conclusions: The results of our study suggest that the consumption of a HMUFA diet attenuates the inflammatory response in insulin-resistant patients with MS. This healthy diet model may be appropriated as nutritional therapy to prevent and improve IR in patients with MS.

RV-107
LIRAGLUTIDE IMPROVES THE PROFILE OF LIPID AND CARDIOVASCULAR RISK BIOMARKERS FROM BASELINE

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Objectives: Type 2 diabetes (T2D) is characterized by increased risk of cardiovascular (CV) disease. In this analysis we assessed the impact of liraglutide therapy on lipid and CV biomarker profiles in patients with T2D.

Material and method: We conducted a meta-analysis of seven randomized controlled phase 3 trials that compared liraglutide 1.8 mg OD with other T2D therapies (glimepiride, rosiglitazone, insulin glargine, exenatide, sitagliptin) and placebo using data from 0–26 wks. The ANCOVA model used trial, previous treatment and randomised treatment as fixed effects and baseline value of outcome variable as covariate.

Results: Liraglutide treatment significantly decreased total cholesterol (TC), low-density lipoprotein-cholesterol (LDL-C) and triglycerides (TG) from baseline ($p < 0.0001$ for all) (Table 1). With comparators, only TG were significantly decreased (glimepiride and sitagliptin, $p < 0.01$ for both). Liraglutide also resulted in significant reductions in the CV biomarkers plasminogen activator inhibitor 1 (PAI-1) ($p < 0.01$), brain natriuretic peptide (BNP) and high sensitivity C-reactive protein (hsCRP) ($p < 0.0001$ for both) vs baseline. By contrast, comparator therapy reductions in PAI-1 and BNP were all non-significant and only rosiglitazone significantly decreased hsCRP vs baseline ($p < 0.0001$).

Discussion: In contrast to any of the comparators, liraglutide significantly reduced all the reported lipid and CV biomarker parameters in the T2D patients included in this meta-analysis.

Table 1 (RV-107). Change in lipids and CV biomarkers vs baseline

Lipid and CV risk biomarker change	Liraglutide n = 1496a	Rosiglitazone n = 219a	Glimepiride n = 467a	Glargine n = 225a	Exenatide n = 210a	Sitagliptin n = 201a	Placebo n = 485a
TC (mmol/L)	–0.17***	+0.24††	–0.06	0.00	–0.05	–0.03	+0.02
LDL-C (mmol/L)	–0.08***	+0.17††	+0.02	+0.07	–0.03	+0.02	+0.01
TG (mmol/L)	–0.28***	–0.09	–0.19**	–0.22	–0.09	–0.36**	0.00
PAI-1 (%)	–7.2**	–3.5	+5.2	–4.5	–9.3	+5.1	+7.2
BNP (%)	–10***	+35.8†††	+1.8	+12.8†	–3.2	+11.7	+6
hsCRP (%)	–24***	–53.3***	– 10.2	+5.5	–12.7	–10.7	–0.3

(a) n values varied depending on data availability. (*) p < 0.05; (**) p < 0.01; (***) p < 0.001 vs baseline.(† was used instead of * for p values corresponding to a significant increase).

However, further studies are needed to confirm the impact of liraglutide on lipid and CV risk protein biomarker profiles.

Conclusions: In addition to its known effects on glycaemia, weight and systolic blood pressure, liraglutide may also reduce CV risk by improving lipid and CV biomarker profiles.

RV-108
GALEN WAS RIGHT ABOUT THE PULSE DIAGNOSIS: RESTING HEART RATE PLAYS A MAJOR ROLE IN CARDIORESPIRATORY FITNESS, A USEFUL PREDICTOR OF ALL-CAUSE MORTALITY RISK

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Objectives: To evaluate the main determinants factors of VO_2max, adjusted by age and sex, to know them we can correct and improve the fitness of our patients.

Material and method: N = 50, 32 males/28 females Age: 40.0 (10.5) y.o, (ranged 20 to 70). 28% hypertensives, 24% hyperglycemia, 18% smokers, 14% metabolic syndrome. Participants were eligible for CRF testing if they had no history of heart disease, no beta-blockers, blood pressure < 160/90. Biochemistry: HITACHI. Blood pressure by OMRON M10-IT. Fat mass: OMRON BF300, A1C (%): DCCT. Cardiorespiratory Fitness (CRF) testing: Rating of Perceived Exertion (RPE): Borg CR10 scale. Standard clinical treadmill: h/p/Cosmos LE 200 CE (h/p cosmos sports & medical Gmbh, Nussdorf-Traunstein, Germany). Age-predicted maximum heart rate according to Tanaka et al, 2001 (HRmax = 208 - 0.7 × age). A modified Balke submaximal exercise test on a treadmill was used to estimate maximum oxygen uptake (VO_2max) in ml/kg/min. Blood pressure was monitored by auscultation; heart rate and rhythms were recorded by Polar heart rate monitoring and h/p Cosmos Para Control software. The speed and elevation was used to convert treadmill performance to metabolic equivalents (METs). Linear regression between METS and HR at final stages (above 60% of HRmax) and to estimate VO_2max (1 MET = oxygen uptake of 3.5 mL/kg/min). Statistical analysis: continuous variables described as mean (standard deviation). Multivariate linear regression model. p < 0.1 was considered significant. Statistical analysis was performed with SPSS, version 15.0 (SPSS Inc).

Results: 1. VO_2max was inversely correlated to resting values of heart rate (standardized Beta = -0.426, p = 0.001; R^2 = 0.284), systolic blood pressure (B = -0.311, p = 0.044; R^2 = 0.181), diastolic blood pressure (B = -0.344, p = 0.018; R^2 = 0.208), after adjustment for age and sex. 2. A higher heart rate reserve (HRmax – resting HR) was associated to higher values of VO_2max (B = 0.501, p < 0.001; R^2 = 0.250) 3. Patients with a better CRF showed lower values of LDL-C (B = -0.264; p = 0.071; R^2 = 0.170) and triglycerides (B = -0.262, p = 0.082; R^2 = 0.162) independently of age and sex. 4. Percentage of Body fat mass (%) was also inversely related to VO_2max (B = -0.245, p = 0.092; R^2 = 0.140). 5. No significant association was found between CRF and waist circumference, weight, BMI, HDL-C, GLUC and A1c.

Discussion: In ancient Rome, the great physician Galen was the great master of pulse diagnosis, and wrote a treatise on the subject entitled De Pulsibus. Above-average cardiorespiratory fitness of the individual, as reflected by VO_2max (maximal oxygen uptake during incremental exercise), has been consistently shown to be associated with decreased mortality in healthy population and in patients with coronary artery disease. Recent studies (Kodama et al. JAMA, 2009) suggest that cardiorespiratory fitness could be useful for prediction of all-cause mortality risk in a primary-care medical practice. Our study supports the importance of resting heart rate in the CRF.

Conclusions: 1. A lower heart rate is good and simple-to-measure predictor of a higher level of cardiorespiratory fitness, independently of age and sex. Heart rate reserve is an age-adjusted parameter derived from resting heart rate strongly related to VO_2max. 2. Both systolic and diastolic blood pressure are closely associated with CRF. A better CFR seems to be related to lower values and/or a better control of blood pressure. 3. Also lipid profile (LDL-C and triglycerides) and body composition (% of fat mass) seems to be associated with CRF. 4-As resting heart rate plays a major role in cardiorespiratory fitness assessment, if we cannot measure VO_2max, we should give more value to this simple measurement in the office. Galen was right.

RV-109
INVESTIGATION OF AORTIC PWV IN OBESE HYPERTENSIVE AND NORMOTENSIVE PATIENTS

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Objectives: Aortic (carotid-femoral) pulse wave velocity (PWV), the current "gold-standard" measure of arterial stiffness, has emerged as an important independent predictor of cardiovascular events. Obesity is often associated with cardiovascular risk factors such as hypertension and hyperglycemia. We aimed to investigate the relationship between hypertension, BMI and aortic PWV.

Material and method: 57 hypertensive-obese and 52 normotensive-obese cases- a total of 109 (males n = 48, females n = 61) patients were included in this retrospective cross-sectional study. Cases having an additional disorder other than hypertension and obesity (peripheral arterial disease, malignancy, chronic renal failure, etc.) were not included in the study. All patient records of arterial blood pressure, body mass index (BMI) values and the aortic PWV were assessed. We used Student's t test and Pearson correlation for statistical analysis.

Results: The differences of mean age (50.0 ± 12.8 and 48.7 ± 12.9 years respectively) and BMI (34.0 ± 2.8 kg/m^2, 33.0 ± 2.9 kg/m^2 respectively) were not significant between the hypertensive and normotensive obese groups (p = 0.1, p = 0.07 respectively). There

were significant differences between both groups for systolic blood pressure (153.7 ± 13.8 mmHg, 126 ± 8.5 mmHg, respectively) (p = 0.001), diastolic blood pressure (88.7 ± 9.3 mmHg, 76.9 ± 6.7 mmHg, respectively) (p = 0.001) and PWV (10.0/s, 8.5 m/s respectively) (p = 0.001). There were also significant correlations between PVW with systolic blood pressure, diastolic blood pressure and age (r = 0.301, p = 0.001/r = 0323, p = 0.001/r = 0229, p = 0.01) but BMI lacked a significant correlation (r = 0.085, p = 0.38).

Conclusions: According to these data, it could be concluded that putting on weight in obese patients does not increase aortic PWV, but in obese patients, the factor that increases PWV may be other conditions associated with obesity and hypertension.

RV-111
ASPIRIN RESISTANCE IN PATIENTS WITH RECENT ISCHEMIC STROKE: IS AN EFFECTIVE STRATEGY TO SWITCH FROM ASPIRIN TO CLOPIDOGREL?

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Objectives: Aspirin (ASA) is a cornerstone of secondary prevention in patients with ischemic stroke. However, there is an increasing concern among physicians about aspirin resistance after ischemic events. Besides, specific treatment recommendations are not established for patients who exhibit high platelet reactivity during ASA therapy. We aimed to assess if switching to clopidogrel in patients with recent ischemic stroke and ASA resistance is an effective strategy.

Material and method: Fifty patients aged 48-85 years (mean age: 68) who had ischemic stroke in the previous 6 months were assessed in the outpatients clinic of our Hospital. ASA had been taken since the stroke episode. Resistance was analyzed using the PFA-100 aggregometer. In those patients with ASA resistance ASA was switched to clopidrogrel, and later on clopidogrel resistance was assessed.

Results: We included 43 (86%) patients with lacunar strokes and 7 (14%) patients with non-lacunar strokes. Thirty-seven (74%) patients were male. Twenty-nine (58%) patients received ASA in a daily dose of 300 mg, 5 (10%) patients 150 mg/day, and 16 (32%) 100 mg/day. Hypertension was the commonest risk factor (36 patients, 72%). Other risk factors included hypercholesterolemia (34 patients, 68%), diabetes mellitus (24 patients, 48%), smoking (20 patients, 40%), obesity (21 patients, 42%), and previous stroke (6 patients, 12%). ASA resistance was observed in 16 (32%) patients. We found no correlation between diminished response to ASA and vascular risk factors, ASA dosage, type of ischemic stroke, or sex. However, patients with diminished response to ASA presented a higher frequency of previous stroke (p = 0.01). Clopidogrel resistance was tested in 12 of these ASA resistant patients, and 4 patients were lost in the follow-up period. Six of these patients (50%) presented clopidogrel resistance.

Conclusions: A diminished response to ASA in patients with recent stroke is commonly observed. This phenomenon is clinically unpredictable. A switch from ASA to clopidogrel in patients with ASA resistance after a recent ischemic stroke doesn't seems to be an effective strategy.

RV-112
HEALTH RELATED QUALITY OF LIFE AND AGE IN HYPERTENSIVE PATIENTS: SELF-PERCEPTION AND EVALUATION BY PROFESSIONALS. THE EQUALITY STUDY

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Objectives: To analyse the association between Health Related Quality of Life (HRQoL) and age, in hypertensive patients. To evaluate the correlation between the HRQoL reported by patients and evaluated by their doctors.

Material and method: Observational, cross-sectional, multicentre national study, in Primary Care and Specialised Care. Inclusion of 5031 hypertensive patients, divided into three age groups (< 65, 65-80, ≥ 80 years) was planned. Selection criteria were: patients whose age was over 18, that were diagnosed as having hypertension at least one year before and attended a follow-up visit. Data related to hypertension, basic socio-demographic and clinical data, answers to the self-administered specific questionnaire MINICHAL for the evaluation of HRQoL (higher scores indicative of lower HRQoL), as well as scores in a visual analogue scale (VAS) for the general evaluation of HRQoL (higher scores indicative of higher HRQoL) by patients and doctors, were recorded. Data of 4,346 eligible patients was included. HRQoL-age correlation was analysed by Spearman's-rho, differences among age groups by Kruskal-Wallis and patient/doctor agreement by the intraclass correlation coefficient (ICC).

Results: Mean age (SD) was 68.35 (12.60). 38.1% of patients were under 65, 36.9% between 65 and 80, 25.0% were over 80. 54.5% were men. Mean time since diagnosis was 10.33 (7.68) years. 34.2% had a family history of high blood pressure. Mean scores in MINICHAL were: State of Mind dimension 8.07 (5.83), Somatic Manifestations dimension 3.24 (3.06). Worsening of both dimensions was found when comparing groups of increasing age (p < 0.001) as well as significant correlation of both dimensions with age (0.335, p < 0.001; 0.397 p < 0.001). Mean VAS score for doctors' evaluation was 66.84 (15.82) and 63.93 (18.46) that of patients; ICC for agreement was 0.697 (0.672, 0.687 and 0.663 by age groups).

Discussion: A clear impact of increase of age on HRQoL worsening was observed, affecting global HRQoL as well as State of Mind and Somatic Manifestations. Worsening was significant for subjects over 65, and again for subjects over 80. Doctors seem to assign slightly higher values to the HRQoL of their patients than the patients themselves.

Conclusions: Impact of hypertension on HRQoL increases with age. Patient/doctor agreement in the evaluation of HRQoL is adequate; however doctors tend to overestimate the HRQoL of patients.

RV-113
PREVALENCE OF MASKED HYPERTENSION AND WHITE-COAT HYPERTENSION BY MEANS OF AMBULATORY BLOOD PRESSURE MONITORING

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Objectives: To determine the prevalence of masked hypertension (MH) and white-coat hypertension (WCH) in the population attending the cardiovascular-risk surgery of a tertiary care hospital

which have undergone an ambulatory blood pressure monitoring (ABPM) study.

Material and method: Descriptive study of data obtained from the ABPM made in the cardiovascular-risk surgery of a tertiary care hospital during the year 2011 in the cases referred by the World Health Organization and the clinical practice guidelines of the European Society of Cardiology and the European Society of Hypertension. Analyses were performed according to the Cardiorisc central database.

Results: Throughout the year 2001, 107 ABPM studies were made in the cardiovascular-risk consultation, 78.8% of them being of good or very good quality. There were 63 men and 44 women, mean age 60 years or more (47.7%). MH presented the 10.28% of patients (n = 11), 54.5% male, mostly aged 60 or more (54.5%). Measurements of blood pressure (BP) in the clinic and by ABPM (mean 24 hours) were respectively 11 and 128.6 126.7 ± 6.3 for systolic BP, and 10.4 ± 72.3 and 76.4 ± 8.1 for diastolic BP. Most of them had non dipper profile in the study of circadian pattern. The HBB appeared in the 14.95% of the sample (n = 16), gender differences, mainly in patients 60 years or more (62.5%). The clinic BP measurements were 155.1 ± 18.8 for systolic and 86.3 ± 11 for diastolic BP, while on the MAP resulted from 118.8 ± 70.7 ± 3.8 and 5.9 respectively. Mostly presented non dipper profile in the study of circadian pattern.

Discussion: MH is characterized by normal clinic BP and elevated ambulatory or home BP load, whereas patients with WCH have an elevation in clinic BP but normal home or ABPM values. Both entities are associated with increased cardiovascular risk and target organ failure and require high clinical suspicion and close follow-up diagnosis.

Conclusions: The prevalence of HE in this population is 10.28%, and 14.95% of WCH, similar to that described in other studies. We must consider the possibility of HE in practice, which should make us think about making more ABPM.

Table (RV-113)

	White coat hypertension	Masked hypertension
Clinic systolic BP	155.1 (18.8)	126.7 (11)
Clinic diastolic BP	86.3 (11)	72.3 (10.4)
ABPM systolic BP	118.8 (3.8)	128.6 (6.3)
ABPM diastolic BP	70.7 (5.9)	76.4 (8.1)

RV-114
CLINICAL CHARACTERISTICS OF PATIENTS UNDERGOING AN AMBULATORY BLOOD PRESSURE MONITORING STUDY ACCORDING TO THEIR CIRCADIAN PATTERN

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Objectives: Know the clinical characteristics of patients undergoing ambulatory blood pressure monitoring (ABPM) according to the circadian pattern they present.

Material and method: Descriptive data of the ABPM made in the consultation with cardiovascular risk of a tertiary care hospital during 2011 in the cases referred by the World Health Organization and the clinical practice guidelines of the European Society of Cardiology and European Society of Hypertension The analyses were performed according to Cardiorisc central database.

Results: During 2011, 107 ABPM studies were conducted;, 78% of them resulted in good or very good quality. 63 were men and 44 women, mean age 60 years or more (47.7%).

Discussion: The ABPM provides a method for assessing the PA that evaluates the circadian rhythms (extreme dipper, dipper, non dipper and riser). There is increasing evidence in the literature of the prognostic implications they present with Independence of the severity of elevated BP measures.

Conclusions: Non-dipper profile: male, 60 years or more, 2 or more cardiovascular risk factors besides hypertension (mainly dyslipidemia and advanced age), treated with 2 or 3 active. Dipper profile: male, 40 to 59, with low or moderate cardiovascular risk, 2 or fewer risk factors except hypertension cardiovascular (the most common age and dyslipidemia), treated with 1 or 2 active ingredients. Extrem dipper profile: male, 40 to 59, very high cardiovascular risk, at least 2 cardiovascular risk factors of hypertension (dyslipidemia, smoking, mainly), treated with 1 active. Profile riser: male, 60 years or more cardiovascular risk very high, with 2 or more cardiovascular risk factors except for hypertension (age and dyslipidemia, major), treated with 2 or 3 active.

RV-115
ANKLE-BRACHIAL INDEX AND PERIPHERAL ARTERIAL DISEASE: TWO GREAT NEGLECTED

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Objectives: Peripheral arterial disease (PAD) is an important marker of cardiovascular morbidity and one of the main markers to identify, in subclinical stages, patients with atherosclerotic disease. Currently we ignore how many patients are underdiagnosed in our hospital population. Therefore, the objective is to know the underdiagnosis of PAD and the burden of cardiovascular disease. So, we can stratify the risk and influence in our clinic behaviour.

Material and method: Type of study: observational, descriptive and transversal. Field of study: our Internal Medicine wards. Subjects: inpatients on May 15, 2012. Exclusion criteria: hemodynamic instability (hypoperfusion, shock, arrhythmias), severe dehydration, impaired consciousness (confusion, coma) and severe dementia. Measures and interventions: PAD was defined if the ankle-brachial index (ABI) was < 0.9 and underdiagnosis when ABI was < 0.9 and they didn't have PAD diagnosis in the medical record. We determined the intermittent claudication (IC)

Table (RV-114)

	Non dipper	Dipper	Extrem dipper	Riser
Number	46 (43%)	33 (30.6%)	6 (5.6%)	22 (20.6%)
Sex	Male (63%)	Male (57%)	Male (66%)	Male (52%)
Mean age	60 or more (47.8%)	40-59 (45%)	40-59 (83%)	60 or more (87%)
Cardiovascular risk	High-very high (52.2%)	Low-moderate (60.6%)	Very high (50%)	Very high (43.5%)
Nº CVRF appart from HTA	2 or more (52.3)	2 or less (81.1%)	2 or more (50%)	2 or less (78.3%)
Number of actives of treatment	2 or 3 (52.8%)	1 or 2 (72.2%)	1 or 2 (80%)	2 or 3 (55.3%)

using the Edinburgh claudication questionnaire. We used the oscilolometric method for measuring the ABI with a validated automatic device (microlife watch BP office ABI). We used statistical program SPSS 15.0 version and nonparametric tests to analyze the data. We divided the patients into two groups: PAD group (PADG) and non-PAD group (NPADG). We analyzed demographic, clinical and semiological data, comorbidities and cardiovascular risk factors.

Results: 61 patients were analyzed, although 9 were excluded. In both groups the average age was 75 years old and there was a clear male predominance, but not statistically significant. 33.77% has an ABI < 0.9 (16/52), including 4 patients with "index 0" or "mistake" in which the device did not register pulse in the lowers limbs. 7 patients had non-compressible ABI which indicates arterial stillness. 69% of patients were underdiagnosed, despite of 74% had symptomatic IC. Regarding to cardiovascular risk conditions and comobidities was statistically significant in PADG: diabetes mellitus (DM) (34.8 vs 24%, p = 0.03), moderate-severe chronic kidney disease (CKD) (39.1 vs 17.2%, p = 0.001), ischemic cardiomyopathy (IC) (39.1 vs 24.1%, p = 0.001) and stroke (30.4 vs 6.9%, p = 0.0001). There were also more smoking prevalence and dyslipidemia (DLP) in PADG but not statistically significant. High blood pressure (HBP) was the most common risk condition in our patients (more than three-quarters of them). 69% of the PADG had 3 or more cardiovascular risk factors. The triad with HBP, DM and DLP was the most powerful association.

Discussion: ABI determination is a simple, noninvasive and validated diagnostic test to detect arterial stenosis of 50% or higher, in lower extremities. The oscillometric method is objective, fast and improves the PAD detection respect to Doppler method if the test is not performed by trained physicians. Many of the elderly patients in our department have many TASC-III guidelines criteria. As a reflection and self-criticism, PAD is easily overlooked by patients and medical internists.

Conclusions: The underdiagnosis of PAD is really high in our patients, 69%. We have a high percentage of IC in our patients with PAD, in spite of using Edinburgh questionnaires, which is usually not a very sensitive test, what strikes us. However, we don't surprise the others vascular territories affectation and cardiovascular risk factors in this group. We recommend the ABI to use more widely in patients and evaluate the potential therapeutic impact.

RV-117
THE REFRACTARY HYPERTENSION. PERSPECTIVE FROM A VASCULAR RISK UNIT

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Objectives: 1. Determine the prevalence and casuistic analysis of refractary hypertension. 2. Identifying the most profitable tests. 3. Establish the most effective therapeutic profile control in these patients. 4. Knowing the degree of control of these patients and its associated disorders.

Material and method: 885 patients of the Hypertension and Vascular Risk Unit. Medical records and hypertension database. Study period: 31 May 2011 to 31 May 2012. Methods: An observational, descriptive, longitudinal study. Setting: Patients attending the consultation from primary and speciality care, Health Area II of Murcia Community.

Results: We attended 885 patients with a median age of 59 years (rang: 13-90). The 26.8% under the age of 50. The distribution by sex: 54% women, 46% men. Refractary or difficult control hypertension was the main cause of consultation, established by 21% cases. The diagnosis was made with controls outpatient in 78% of cases, in consultation a 69% and 27.5% by MAPA. Risk factors more prevalent were: dyslipidemia 81%, obesity 56%, diabetes 52% and smoking 15%. The associated pathologies more important were: heart failure 28%, SAOS 27%, chronic renal failure 25%, arterial disease 22%, stroke disease 22% and atrial fibrilation 20%. Is secondary hypertension found in the 27.5%, the rest was primary hypertension. The renovascular disease and the primary hyperaldosteronism were the main causes of secundary hypertension, with a 12.5% and 10%, respectively. It had a proper control of the HTA (< 140/90) in 55% of cases. The 55.93% of diabetic patients presented HbA1c less than 7% and 42% cases of dyslipidemia had LDL less 100, it increased by 78% with levels < 120. Greater cost-effectiveness tests diagnosed were: glycohemoglobin A1c, lipid profile, cooximetry, the determination of plasma aldosterone and renin activity; proteins in urine in 24 hours, electrocardiogram, echocardiography, index ankle-brachial, ambulatory blood pressure monitoring and MRI of renal arteries. Most of the patients received 4 or more antihypertensive drugs, being the most widely used combination: angiotensin II receptor antagonist (80%), hydrochlorothiazide (60%), antagonist of calcium dihydropyridínic (57.5%) and doxazosin (55%). Other drugs: Beta blockers (47.5%), furosemide/torasemide (40%). ACE (20%), RI (17.5%), CA ND (15%), spironolactone (10%).

Discussion: The majority of patients with refractory hypertension can be controlled adequately with an association of appropriate drugs to full dose. Left ventricular hypertrophy appears in more than 50% of patients at the time of the initial consultation, as well as the renal apportionment in 25% of them. This indicates a very important delay in the control of hypertension that carries an associated organ damage. Requested many tests with a profitability diagnosed low offers opportunities of improvement in efficiency.

Conclusions: 1. Refractory hypertension is the main reason for consultation in our specialized unit. 2. The early definition of it and a quick control is possible and can prevent organic damage. 3. The prevalence of associated diseases is more high than in other grades of hypertension. 4. The delay in the diagnosis and control is associated with serious complications such as kidney disease, stroke and heart failure.

RV-118
DYSLIPIDEMIA AND GLOBAL CARDIOVASCULAR RISK IN VIH-WOMEN ON HAART ERA: IMPLICATIONS FOR PRACTICAL MANAGEMENT

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Objectives: To know the frequency and clinical characteristics of dyslipidemia in women infected with human immunodeficiency virus (HIV) on highly active antiretroviral therapy (HAART). To detect the presence of other vascular risk factors and estimate their overall vascular risk.

Material and method: Retrospective study of 43 medical records of HIV infected women receiving HAART who have been controlled since 2008 in a specialized medical office. Variables of age, smoking, systolic blood pressure, total cholesterol, HDL, LDL and triglyceride were examined. Global vascular risk was calculated by SCORE charts for low-risk populations according to the Guidelines of dyslipidemia of the European Society of Cardiology 2011. We defined hypercholesterolemia with cholesterol levels > 190 mg/dl

and high triglycerides > 150 mg/dl. Variables were collected for viral load, CD4 and the drugs in HAART. We performed a descriptive analysis and subsequently a bivariate analysis between the levels of lipids and protease inhibitors.

Results: The mean age was 40.02 ± 9.36 years with a mean viral load of 37 cop/ml and CD4 levels of 684 cel/µl. Frequency of dyslipidemia defined by a cholesterol over 190 mg/dl was 27%. Hypertriglyceridemia (TG > 150 mg/dl) was 17%. The mean values of HDL were 59 ± 14 mg/dl and LDL 99 ± 29 mg/dl. Smoking was found in 60%. The mean systolic blood pressure was found in 14 ± 10 mmHg. The overall risk assessment by SCORE in all of them was ranged from 0 to 1%. The presence of hypertriglyceridemia was more frequent in patients receiving HAART with lopinavir-ritonavir if we compare this patients with other who are not exposed to this drug (35.3% vs 14.3%, p = 0.030).

Discussion: The presence of a cholesterol dyslipidemia defined above 190 mg/dl is common among HIV women. Despite a high frequency of dyslipidemia and smoking, the overall risk by SCORE is very low. This aspect may be mainly conditioned by the age and sex. However, being young women smokers makes interesting to use the relative risk tables by SCORE in the sense to promote the smoking cessation and dietary hygienic measures prior to the indication of lipid-lowering therapy. Lipid alteration most significant was the presence of hypertriglyceridemia associated with lopinavir-ritonavir. In this sense we should replace this drug by another with better antiretroviral lipid profile if feasible. It should be noted the need to better assess risk factors in these patients such as the presence of masked hypertension, metabolic syndrome or subclinical target organ injury. We need a more comprehensive assessment of vascular risk "individual" in HIV patients.

RV-119
ROUTINE EVALUATION OF KIDNEY FUNCTION IN HYPERTENSIVE PATIENTS – HOW IMPORTANT CAN BE A SIMPLE MEASUREMENT?

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Objectives: Background: Although evidence-based guidelines recommend routine evaluation of kidney function in hypertensive patients, the tests are unfortunately still too often neglected. The aim of the present study was to evaluate the prevalence and clinical correlates of CKD in patients with hypertension referred to our clinic.

Material and method: 170 subjects with treated or untreated hypertension (HTN) were included. Exclusion criteria were acute renal failure or rapid deterioration of renal function in patients with chronic renal failure, serum creatinine ≥ 3 mg/dl, secondary HTN, clinical signs of urinary tract infection, heart failure NYHA class III–IV. For each patient we recorded demographic and anthropometric data, BP values, echocardiographic data, associated clinical conditions (coronary artery disease, cerebro-vascular disease, peripheral artery disease), diabetes mellitus, concomitant medications. Serum creatinine levels were recorded, and GFR was estimated using the simplified MDRD study equation. CKD was defined as GFR less than 60 ml/min/1.73 m^2. Statistical analyses were performed using SPSS program.

Results: The patients were divided on the basis of GFR in 2 groups: I – 106 hypertensives with GFR ≥ 60 ml/min/1.73 m^2 and II – 64 hypertensives with GFR < 60 ml/min/1.73 m^2. The main differences between the 2 groups are: age (yrs) 48.9 ± 5.2 vs 56.8 ± 5.1, p 0.01; male 59 vs 42%, p 0.05; office SBP mmHg 138.6 ± 7.2 vs 142.8 ± 6.4, p 0.01; office DBP mmHg 86.4 ± 4.2 vs 88.7 ± 4, p 0.01; office PP mmHg 50.1 ± 7.4 vs 56.8 ± 7.2, p 0.01; SBP/ABPM mmHg 132 ± 6.4 vs 134.9 ± 5.2, p 0.01; LVMI g/m^2 108.8 ± 14.8 vs117.6 ± 12.3, p 0.01; duration of HTN > 5y: 30 vs 56%, p 0.01; adequate BP control achieved 53 vs 30%, p 0.01; serum creatinine(mg/dl) 0.9 +/- 0.2 vs 1.3 ± 0.3, p 0.01; hyperuricemia 21 vs 41%, p 0.01; associated clinical conditions 17 vs 48%, p 0.01; RAS inhibitor (%) 83 vs 86%, p ns; diuretics (%) 34 vs 66%, p 0.01.

Discussion: Renal abnormalities are found in a significant number of hypertensive patients (38%). One in three patients among those included in our study showed a reduced estimated GFR < 60 ml/min/1.73 m^2. CKD occurs more often in older patients and in those with associated metabolic risk factors or associated clinical conditions (coronary artery disease, cerebrovascular disease, peripheral artery disease). In our study a reduced GFR was associated also with female gender, SBP (both office and ABPM) values, office DBP (not at ABPM), PP (office and ABPM) values, LV hypertrophy (at echocardiography), duration of HTN, inadequate BP control, and diuretics use. Inadequate BP control was a relatively common finding in our study, regardless of the degree of renal impairment, and these data are in line with previously reported findings in the literature. In fact, BP values < 140/90 mmHg in the presence of CKD were only recorded in 30% of study patients.

Conclusions: These results suggest the need to improve awareness of the role of renal damage as a component of global risk. Increased awareness among physicians regarding the importance of reduced GFR as cardiovascular and renal risk markers could lead to earlier detection of patients at risk. This would improve treatment and possibly prevent or delay the progression of CKD and decrease the excess of CV risk associated with renal dysfunction.

RV-120
FRAMINGHAM PLUS. HIGH PREVALENCE OF CARDIOVASCULAR RISK FACTORS IN HIV-INFECTED PATIENTS

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Objectives: The cardiovascular risk (CVR) calculated by the Framingham score (FS) has been validated in the HIV population, although it underestimates it. Our objective was to analyze the prevalence of other cardiovascular risk factors (in addition to those discussed in the FS) in our population with HIV infection and evaluate them based on how many patients should receive a theoretical pharmacotherapeutic intervention.

Material and method: Cross sectional study, with variables collected prospectively. Besides FS, we also analyzed, 14 variables that have been shown to play a role as cardiovascular risk factors (family or personal history of ischemic heart disease, cocaine, physical inactivity, waist circumference > 88 or 102 cm depending on sex, BMI > 30, TG > 200 mg/dl, CRP > 8 mg/dL, homocysteine > 12 mg/dl, renal failure, microalbuminuria, use of LPV/r, CV > 500 copies/ml, and HCV). It was proposed that a patient having > 20% in the FS or > 10% in the FS and > 2 cardiovascular risk factors qualified for a pharmacotherapeutic intervention.

Results: One hundred and thirty-three patients were analyzed. 71.4% were male with a median age of 43.5 years (IQR: 38-49). The median CD4 was 520 (IQR: 370-690) and 77% had VL < 50 copies/ml. 32% had HCV + and 6.8% HBsAg+. 61.7% were smokers with median pack-year index of 20 (IQR: 10-34). 10.5% had used cocaine in the past year. 41.4% were sedentary. 54.1% were overweight and 13.5% were obese.21.3% had a waist circumference greater than 102 or 88 cm by sex. 23% had an SBP/DBP > 140/90 mmHg and 6.7% were

diabetic. The total cholesterol/HDL was higher than normal in 25.9%, LDL cholesterol greater than 160 in 10%, triglycerides above 200 mg/dl in16.5%. 16% had a ratio of microalbuminuria/creatinuria above 25. 26.3% and 5.2% had a family or personal history of stroke or myocardial infarction. 32.1% of patients had an FS between 10-20% and 13.7% had it above 20%. The median of cardiovascular risk factors other than those included in the FS was 3 (IQR: 1.5 to 4). 10.5% were undergoing antihypertensive therapy and 11.5% were on statins. Only 17.3% (23/133) were treated with some kind of drugs. However, at least an additional 15% should be taking them.

Conclusions: The prevalence of cardiovascular risk factors is very high in the HIV population. The variables introduced in the FS underestimate cardiovascular risk in this population. Due to the high prevalence of cardiovascular risk factors in this population, pharmacotherapeutic strategies must be implemented.

RV-121
GLYCATED HEMOGLOBIN AS A MARKER OF CARDIOVASCULAR RISK IN PATIENTS ADMITTED IN INTERNAL MEDICINE

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Objectives: Determine the relationship between glycated hemoglobin (HbA1c) values and the presence of other cardiovascular risk factors considered, such as arterial hypertension and dyslipemia (DLP), in our patients. Evaluate its contribution to overall cardiovascular risk.

Material and method: We have conducted a prospective observational study collecting clinical and laboratory data, including HbA1c and the presence of hypertension and DLP, from patients who were admitted for any reason in the Department of Internal Medicine at the San Cecilio Hospital in Granada from April 15th to December 31st, 2010. For data analysis, patients were divided in two different groups: "DM" composed of patients with diagnosis of diabetes mellitus (DM), and "unknown DM", composed of patients without a previous diagnosis of DM. Subsequently, patients among the group "unknown DM" were divided in three subgroups according to their HbA1c levels: Group 1 (normoglycemic with HbA1c lower than 5.7%), Group 2 (prediabetic with HbA1c between 5.7 and 6.4%), Group 3 (diabetic with HbA1c equal or greater than 6.5%). We employed SPSS v.15 program, licensed by the University of Granada for data analysis.

Results: Our cohort consists of 356 patients. At the time of their inclusion in the study, 133 are "DM" and 223 are "unknown DM". The average age is 70.9 ± 17.7 years old, and 49.4% of them are men. The average HbA1c is 6.27 ± 1.36%. Patients with \"DM\" are more hypertensive than the "unknown diabetes", 83.5% (111) compared to 43.5% (97) respectively. Besides, they are more dyslipemic, 33.8% (45) vs 13.9% (31). Within the "unknown diabetes" group, there are more diagnoses of hypertension in patients in whom it has been found alterations in carbohydrate metabolism after sorting them according to their HbA1c levels, 52.2%(47) compared to 27.5% (28). In addition, the hypertensive show higher HbA1c levels compared to non-hypertensive patients with an average HbA1c, in hypertensive group, of 6.58 ± 1.45%.

Discussion: Different studies agree that HbA1c predicts cardiovascular morbidity and mortality in both diabetic and nondiabetic individuals. This evidence suggests a continuous relationship between glucose blood concentrations and cardiovascular risk. In non-diabetic population, several papers show that HbA1c levels are higher than the levels of fasting plasma glucose for the evaluation of long-term risk of developing cardiovascular disease. Individuals belonging to group 2, with HbA1c 5.7-6.4, must be paid special attention to seek cardiovascular risk factors as it has been proved that they have a high risk of developing coronary heart disease and cerebrovascular disease. In our study, among the group which unknown diabetes at the time of their inclusion, patients with alterations in carbohydrate metabolism are more hypertensive than the normoglycemic. This finding is added to their Diabetes and un-known prediabetes status, thus increasing their cardiovascular risk and hence benefiting even more from an intervention in this regard.

Conclusions: Our study supports the values of HbA1c in the quantification of cardiovascular risk not only in diagnosing and a carbohydrate metabolism disorder but also as an independent cardiovascular risk marker. This allows us to take measures to prevent cardiovascular diseases.

RV-122
INFECTIOUS COMPLICATIONS IN A STROKE UNIT

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Objectives: In patients with ischemic stroke (IS), infectious complications are predictable and potentially avoidable. Studies show that organized care decreases incidence of IC and improves functional outcome. To compare length of stay, functional outcome and degree of dependence and disability in a population of patients admitted to a stroke unit (SU) with acute ischemic stroke that had infectious complications to those with acute IS that did not have any infection (CG).

Material and method: A retrospective study of patients admitted to a Stroke Unit between January and June 2011 through collection of data recorded in its database and clinical records.

Results: Of 108 patients admitted with ischemic stroke, 38% (41 patients) had infection, 18.5% urinary tract infection, 15.7% respiratory infection, 3.7% other focus. The average age of the patients in the infection group was 69.4 years vs 68.6 years in control group, with no significant difference between gender. The length of stay in infection group was 7 days (95%CI: 5.5-8.6) and in the control group was 5.3 days (95%CI: 4.7-5.8), with a p value = 0.02. At admission patients in the infection group presented a higher mean National Institute of Health Stroke Scale score (NIHSS) (10 points), and at discharge of 6.6 points, with a range of 3.4 points (95%CI: 1.9-5) compared to control group with admission NIHSSs mean value of 4.7 points, discharge NIHSSs mean value of 2.6 points and range of 2.1 points (95%CI: 1.6-2.7), all with statistically significant differences. The mean degree of dependence and disability, measured by modified Rankin Scale (mRS), was 2.9 points in the infection group vs 1.7 points in the control group, with a p value = 0.000.

Conclusions: The data analysis concluded that the presence of infectious complications was directly related to longer length of stay and worse neurological outcome. There was a strong correlation between the stroke severity, dependence and risk of contracting infections. Although it was not a primary objective of this study, we found that the incidence of infection, compared to published studies, was lower in this sample, perhaps correlated with the differentiated and standardized approach in SU.

RV-123
RELATIONSHIP BETWEEN ENOS AND HDL CHOLESTEROL LEVELS

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Objectives: In the development of endothelial dysfunction one of the most studied molecules is nitric oxide (NO) as an important vasodilator. It is known that in the evolution of endothelial dysfunction there is a poor production of NO. In the progress of endothelial damage and the genesis of the atheromatous plaque also contribute an important lipid levels. Lipid levels are a marker of vascular risk and one of the therapeutic goals in patients with vascular risk. We have studied the possible relationship between HDL levels and the enzyme that synthesizes NO, the endothelial isoform. To do this we select a polymorphism of the enzyme that synthesizes it. The gene encoding eNOS is located on chromosome 7, 7q35-36 location. Polymorphism was studied by changing a single nucleotide (SNP) at position 298 with a T for G. (rs 1799983).

Material and method: We studied a cohort of patients seen in a vascular risk unit. We selected 298 patients who came to control vascular risk factors. He had not previously received drug treatment. We excluded patients who had received drug treatment and those with hyperlipidemia families. Analytical extracted in the first visit to the unit. Amplification reactions were performed in automatic thermal cycler (Step One Plus® Applied Biosystems) using TaqMan® probes. Statistical analysis using the SPSS WAS Performed software.

Results: We classified the low HDL levels with lower levels 40 mg/dl for men and less than 46 mg/dl in women. High levels if are greater or equal to 40 mg/dl for men and women established limits equal to or greater than 46 mg/dl. The result 158 patients with low and 140 with very high levels. The result of the genotyping according to the HDL is as follows: Low levels: TT: 42, TG: 77, GG: 39. High levels: TT: 23, TG 70, GG: 47. The statistical association test, chi square 0.062.

Conclusions: No statistical relationship was found between HDL and eNOS polymorphisms studied. The level of statistical significance was next to p: 0.05 (p: 0.062) It is requires a study more comprehensive in the number of patients. Is necessary to study together the vascular pathology associated with endothelial damage.

RV-124
CENTRAL SYSTOLIC BLOOD PRESSURE, PULSE WAVE VELOCITY AND ABNORMAL AUGMENTATION INDEX IN THE SHOWCASE OF VASCULAR SENESCENCE

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Objectives: To evaluate the impact of different haemodynamic parameters in abnormal augmentation index of radial artery.

Material and method: N = 103. 62 males (60.2%). Age: 59.6 (13.1), 21-81 yo. 72.8% hypertensives, 70.9% hyperglycemia, 24.3% smokers Pulse wave analysis: SphygmoCor (AtCor). Augmentation Index was calculated from the central arterial waveforms as the difference between pressure at peak systolic flow and pressure at the peak of the reflected wave, divided by the central pulse pressure Augmentation index was adjusted to a standard heart rate of 75 bpm (AIx@75) at an inverse rate of 4.8% for each 10 bpm increment. Subjects were considered as abnormal AIx@75 (augmentation index adjusted to heart rate) if they were 1-standard deviation above sex-specific and age-adjusted population mean provided by AtCor from British subjects (polynomial regression). Central cardiovascular parameters: ejection duration (ED) in ms, subendocardial viability ratio (SEVR) in %, central systolic (CSBP) and diastolic blood pressure (CDBP) mmHg. Carotid-radial pulse wave velocity (PWV) (m/s) SphygmoCor system. A1c (%): DCCT; 10 years coronary Risk (%): Framingham model calibrated for Spanish population: REGICOR. Statistical: Continuous variables described as mean (Standard deviation). Multivariate linear regression model using age and gender as covariates was used to correlate AIx@75 and PWV. Multivariate: backwards method. Comparation between groups by independent samples t-test or Mann-Whitney's test as appropriate. Squared-Chi test. Two-tailed $p < 0.05$ was considered significant. Statistical analysis: SPSS(15.0).

Results: 1. The prevalence of abnormal AIx@75 was n = 29 (28.2%). The method of measure avoids the impact of age and heart rate, that are beyond question. In this study there was no significant differences in age because each abnormal case was adjusted by age and so the abnormal group had an age of 60.8 (13.4) vs 59.1 (13.0) in the normal group. 2- This prevalence is higher in males than in females: Gender: males (22 abnormal vs 40 normal); females (7 abnormal vs 34 normal). $p = 0.047$ 3-Significant differences were observed in 10-years coronary risk (%): 4.8 (2.4) vs 3.3 (2.2), $p = 0.008$, and A1c (%), both in the whole population: 6.1 (0.8) vs 5.7 (0.8), $p = 0.022$ and the hyperglycaemic group: 6.4(0.9) vs 5.9 (0.8), $p = 0.015$. 4- Among the non-invasive haemodynamic parameters measured (PWV, SEVR, ED, CSBP. CDBP), only central systolic blood pressure showed differences between the studied groups: 127.3 (14.5) vs 119.3 (14.1), $p = 0.012$. 5- No significant differences in PWV were found ((8.0 (1.4) vs 7.6 (1.1)), although a significant linear correlation between AIx and PWV was observed after adjustment by sex and age (non-standardized Beta = 2.65, $p < 0.001$¸ model $R^2 = 0.540$).

Discussion: When the heart contracts it generates a pulse or energy wave that travels through the circulation. The speed of travel of this pulse wave (pulse wave velocity or PWV) is related to the stiffness of the arteries. Moreover, by analysing the amplitude of the reflected and the first wave, the Augmentation Index can be calculated (AIx), providing information on both the stiffness of the aorta and about the peripheral vascular tone.

Conclusions: 1. Around 1 out of 3 patients with moderate-high risk have an abnormal AIx@75. 2. The prevalence of abnormal AIx@75 is higher in males. 3. The AIx is associated with glycemic metabolic control and coronary risk. 4. Central systolic blood pressure and PWV are the haemodynamic factors more closely related to AIx@75. These results are not surprising, as all of them are in the showcase of vascular senescence.

RV-125
DIFFERENCES IN BASELINE RENIN AND ALDOSTERONE CONCENTRATIONS BETWEEN EUTHYROID HYPERTENSIVE PATIENTS AND LEVOTHYROXINE-TREATED HYPERTENSIVE PATIENTS WITH SUBCLINICAL HYPOTHYROIDISM

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Objectives: The aim of our study was to compare baseline plasma levels of renin and aldosterone between euthyroid hypertensive patients and levothyroxine-treated hypertensive patients with subclinical hypothyroidism.

Material and method: In this pilot case-control study, we recruited 34 hypertensive patients from our hypertension unit.

Patients with other secondary causes of hypertension were excluded. We divided the sample into euthyroid patients (controls: n = 19) and hypothyroid patients treated with levothyroxine (cases: n = 15). We analyzed anthropometric and laboratory values and antihypertensive and lipid-lowering treatments for both groups. Baseline plasma levels of renin and aldosterone were assessed. SPSS 20.0 was used for the statistical analysis.

Results: No differences were found in plasma renin and aldosterone concentrations between hypothyroid patients and controls. Diastolic blood pressure tended to be higher in hypothyroid patients (p = 0.06). Total cholesterol and LDL cholesterol were lower in hypothyroid patients (p = 0.031 and p = 0.019). No differences were found between groups for any treatment, including lipid-lowering therapies, or for any of the other variables analyzed.

Discussion: Hypothyroidism is characterized by low plasma renin activity and dissociation in the renin-angiotensin-aldosterone system (RAAS). Thyroid hormone has an antiatherogenic effect on RAAS. It inhibits angiotensin II expression and its signal. Our hypothesis was that levothyroxine has a beneficial effect on RAAS in hypertensive patients with subclinical hypothyroidism, even though patients may not become completely euthyroid, Regardless of their subclinical hypothyroidism, levothyroxine-treated hypothyroid patients had plasma renin and aldosterone concentrations similar to those of controls. Diastolic blood pressure tended to be higher than in controls, as is the case with non-treated hypothyroid patients, although RAAS seemed to be normal. The lipid profile was better in patients treated with levothyroxine, perhaps due to the effects of this hormone on lipid metabolism.

Conclusions: Levothyroxine-treated hypertensive patients with subclinical hypothyroidism had plasma renin and aldosterone concentrations that were similar to those of euthyroid hypertensive patients, although they did not become completely euthyroid.

RV-126
IS THERE ANY ASSOCIATION BETWEEN VITAMIN D DEFICIENCY AND CARDIOVASCULAR RISK IN HIV PATIENTS?

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Objectives: The prevalence of traditional cardiovascular risk factors in the HIV population is high. Vitamin D deficiency has been associated in several studies with increased cardiovascular risk. Our objective was to analyze the prevalence of vitamin D deficiency in the population with HIV infection and its association with other cardiovascular risk factors.

Material and method: Cross sectional study, with variables collected prospectively. We analyzed variables related to cardiovascular risks, the Framingham score (FS) and levels of vitamin D in patients with HIV infection. Vitamin D deficiency (25-OH-D3) was defined to have less than 15 ng/ml. We used univariate logistic regression to analyze the data, using vitamin D deficiency as dependent variable.

Results: One hundred and twenty-eight patients with a median age of 44 (IQR: 38-49 years) were analyzed and of which 74.2% were males. 39% had a deficiency of vitamin D. The variables that were associated with vitamin D deficiency were: lipoatrophy (OR: 0.82 95%CI from 0.72 to 0.94, p = 0.019), glycosylated hemoglobin. Out of these 5.8% accounts for patients with deficits and 5.3% for patients without deficit; (mean difference: 0.5%, 95%CI: 0.25 to 1.66, p = 0.010). The FS score was 15% in patients with vitamin D deficiency and 7.5% for those with no deficit (p = 0.10). The use of NNRTIs (EFV or NEV) was not associated with vitamin D deficiency. We did not find any association between vitamin D deficiency and sex, snuff smoking, cocaine use, physical inactivity, diabetes mellitus, hypertension, hypercholesterolemia, hypertriglyceridemia, age, hepatitis B or C, undetectable VL, waist circumference, the total cholesterol/HDL, albumin/creatinine ratio,SBP, DBP, heart rate, percentage of lean mass or fat mass percentage, the ratio of lean mass/fat mass, creatinine, CRP, CD4 count, time with HIV, or body mass index.

Conclusions: Vitamin D deficiency is highly prevalent in HIV infected population. Lipoatrophy and increased glycosylated hemoglobin is associated with vitamin D deficiency. We found a trend between a high Framingham score and the lack of vitamin D.

RV-127
CARDIOVASCULAR RISK FACTORS BEHIND THE BARS

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Objectives: Cardiovascular diseases are the leading cause of death of Spanish population, which caused a total of 120.760 deaths until 2006. The prevalence of factors that determine the cardiovascular risk (CVRF) in the Spanish general population has been analysed previously by various authors. However there are few studies that determine its prevalence in special populations and persons arrested in a penitentiary institution. The aim of this study is to determine the prevalence of cardiovascular risk factors in a penitentiary center.

Material and method: Scope of study: Penitentiary Center. Design: cross-sectional study with data collection through a survey on cardiovascular risk factors, specifically designed for the study. We included all the prisoners who voluntarily accepted to participate through a written consent. We collected sociodemographic data, family and personal history of cardiovascular disease, weight, height, abdominal perimeter and blood pressure. We selected the cut-off points recommended by the National Cholesterol Education Program Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) to determine cholesterol, triglycerides, HDL and LDL cholesterol. Measures of central tendency and proportions for a description of continuous variables or the qualitative variables were used. Ethical aspects: The study, approved by the technical Cabinet of the General Secretary of Penitentiary Institutions, was performed following the recommendations to lead physicians in biomedical research with human beings adopted by the Helsinki World Medical Assembly.

Results: We included a total of 1237 individuals (5.60% women) with a mean age of 37.2 (SD 10.31; range 19-78). 67.9% belonged to a low socioeconomic stratus, 76% only had primary education or none, 7.5% were illiterate and 24% were immigrants. 80% were smokers. 29% had high blood pressure, 31% had hypercholesterolemia, 12% triglycerides, HDL under 52%, 30.3% had a raising LDL and 6% diabetes. 54.3% had a body mass index higher than 25 and 20.6% were obese. 37.4% had a family history of cardiovascular disease, 15.4% had been diagnosed with a pre CVD. The proportion of individuals with 0, 1, +2 risk factors was of 5.50%, 23.8% and 70.6%. The percentage of individuals with dyslipidemia was 64.8%.

Conclusions: The prison population is integrated by young adults with low socioeconomic level and low level of education. These characteristics define a vulnerable group from the point of view of health. Smoking is the most common cardiovascular risk factor in

the prison and his prevalence is higher than the general population. This feature would determine future responses of health departments for the prevention and treatment of this addiction. The prevalence of other cardiovascular risk factors is similar to the general population for the same ranges of age. Taking into account their socio-demographic characteristics and the opportunity of stay in prison, it should be implemented health education programs adapted to their needs. The main weakness of this study is that it was performed in a single prison, so it would be advisable to make a multicenter study.

RV-128
ACUTE MYOCARDIAL INFARCTION WITH NORMAL CORONARY ANGIOGRAM: POSSIBLE MECHANISM OF HEROIN OVERDOSE RISK IN CORONARY ARTERY DISEASE

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Objectives: The apparent paradox of well-documented myocardial infarction with a subsequently normal coronary angiogram although no longer clinically regarded as a rarity, is still not well documented. This study was undertaken to examine the clinical features and risk factors which distinguish those patients with myocardial infarction and a normal angiogram from those whose infarction is associated with obstructive coronary disease before the age of 40.

Material and method: The coronary angiograms of 20 consecutive patients (mean age 40 ± 5 years) were examined. Ten new cases of myocardial infarction with normal coronary arteriogram were identified (group 1) and compared with 10 cases of myocardial infarction and obstructive coronary disease (group 2) matched for age and gender. The medical records of the patients were reviewed for clinical documentation of myocardial infarction (typical history, enzyme release, and the subsequent ECG development), clinical course, and presence of risk factors.

Results: Heroin overdose (Odds Ratio, 95% Confidence Interval, 1.04, 1.00-1.06, p = 0.001) and cigarette smoking (OR, 95%CI 1.4, 1.00-1.64, p = 0.01) were the main risk factors in group 1. Other factors included in the model were age, gender, obesity, hypercholesterolemia, arterial hypertension, and type 2 diabetes mellitus. Hypercholesterolemia (OR, 95%CI 1.4, 1.07-2.52, p = 0.001), arterial hypertension (OR, 95%CI 1.9, 1.05-3.45, p = 0.03) and type 2 diabetes mellitus (OR, 95%CI 3.06, 1.79-4.25, p < 0.001) were identified as main risk factors in group 2. Pre- and postinfarction angina was rare among the patients with myocardial infarction and normal coronary arteriogram (OR, 95%CI 1.02, 0.98-1.07, p = 0.22) and recanalisation after heroin and smoking-induced thrombotic occlusion was described as the most likely pathophysiological mechanism (OR, 95%CI 2.4, 1.58-3.64, p < 0.001).

Discussion: The economic crisis in Greece has adversely affected the well-being, and has ramifications for social health systems. The impact of heroin addiction has been a growing concern for all social security schemes. Acute heroin overdose has become a daily experience in the Emergency Room and accounts for many preventable deaths. Heroin-induced thrombosis is only likely to be recognised in special circumstances, when it develops in apparently normal coronary arteries, is followed by recanalisation, and is complicated by infarction as a permanent marker of previous obstruction to regional myocardial blood flow. Thrombotic occlusion of a "normal" coronary artery without recanalisation is usually recognised when myocardial ischemia is fatal. If heroin overdose can predispose to thrombosis in "normal" coronary arteries, it may be even more likely to accelerate thrombosis in atheromatous coronary arteries. Efforts to reduce the health effects of heroin use must be embedded in policies that address the underlying causes and which serve to reduce cardiovascular risk in shattered communities.

RV-129
BASELINE CHARACTERISTICS OF HOSPITALIZED PATIENTS UNDER 40 YEARS OLD WITH ACUTE CORONARY SYNDROME DIAGNOSIS

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Objectives: The incidence of acute coronary syndrome (ACS) increases with age being uncommon in the young (defined as patients under 40 years old). These young patients suffering from ACS differ by risk factor profiles, clinical presentations and prognosis. Our aim was to evaluate baseline and clinical variables of hospitalized young patients with ACS in our center.

Material and method: To evaluate this fact we performed a descriptive study including 112 young patients admitted with the diagnosis of ACS: 80 (71.4%) with ST segment elevation (-STE) and 32 (28.6%) without ST segment elevation (-NSTE). We registered classical cardiovascular risk factors, as well as toxic habits, particularly cocaine consumption, in addition with several clinical parameters such as the presence of heart failure (HF), defined in line with Killip score, at admission or complications during hospitalization. We made a descriptive analysis of the therapeutic strategy (percutaneous revascularization, PCI, or conservative treatment) and the different drugs used. Furthermore, the lipid profile was registered (table).

Results: Mean age was 36.2 ± 3.5 years. There was a higher prevalence of males (81.2%). Smoking was the most prevalent basal cardiovascular risk factor (76.8%) while only 13 patients (11.6%) were cocaine consumers. On the other hand, family history of cardiovascular disease was present in 28 patients (25%), diabetes mellitus in 10 (8.8%), dyslipemia in 27 (24.1%) and hypertension in 19 patients (17%). Most patients had not complications. We found no differences in basal and clinical variables between both types of ACS.

Table (RV-129)

Variables	STE-ACS (N = 80)	NSTE-ACS (N = 32)	p
LDL-C > 115 mg/dl	29 (36.3%)	7 (21.9%)	NS
HDL-C < 40 mg/dl	39 (48.8%)	10 (31.3%)	NS
Coronary arteriography	75 (93.8%)	28 (87.5%)	NS
No coronary lesions	16 (20%)	13 (40.6%)	NS
Multivessel disease	9 (60%)	6 (40%)	NS
LVEF	53.3 ± 10.2	57.5 ± 6.6	0.012
HF at admission	14 (17.5%)	0	0.01

Discussion: Regarding the lipid profile, we observed a high prevalence of dyslipidemia in these patients despite the fact that the prevalence of known dyslipidemia was low. So, many of these patients had previously unknown dyslipidemia. As expected, an invasive therapeutic strategy, PCI, was chosen in most cases with STE-ACS. Thrombolysis was performed in 24 patients (30%) meanwhile urgent PCI in 47 (58.8%). Long time delay from the onset of symptoms to admission (mean: 18.8 hours), could justify why some of the patients with STE-ACS were not revascularized.

Conclusions: Young patients with ACS often have a family history of premature cardiovascular disease. In addition, smoking is the most frequent risk factor. In general, the therapeutic strategy of ACS in young patients is similar to the one realized in older people. Basal lipid profile and clinical variables of hospitalized patients under 40 years old with acute coronary syndrome.

RV-131
LIPID PROFILE AT ADMISSION AND EVOLUTION AFTER DISCHARGE IN PATIENTS HOSPITALIZED WITH ACUTE CORONARY SYNDROME AT A REFERENCE HOSPITAL

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Objectives: The hypercholesterolemia, mainly increment of cholesterol associated to low density lipoprotein (LDL-C) is a known cardiovascular risk (CVR) factor. A reduction in the levels of LDL-C is one of the therapeutic goals in the treatment of patients with acute coronary syndrome (ACS) during hospitalization and at discharge. Likewise, high levels of cholesterol associated to high density lipoprotein (HDL-C) are related to a lower CVR. Our aim was to analyze the CVR according to the lipid profile as well as LDL-C/HDL-C control rates in patients with ACS during hospitalization and after discharge.

Material and method: In order to evaluate this fact we performed a retrospective cohort study that included 804 consecutive patients who were admitted to our center due to ACS: 414 (51.5%) without ST segment elevation (-NSTE) and 390 (48.5%) with persistent ST segment elevation (-STE). We analyzed the baseline epidemiological characteristics, lipid profile at admission and during hospitalization, hyperlipid therapy (HT) at discharge and the lipid profile during follow-up after discharge. We established two different prevention criteria depending on the presence of cardiovascular disease (CVD) or diabetes (DM) at admission. The LDL-C thresholds were 115 mg/dl (if no CVD nor DM) or 100 mg/dl (if CVD or DM). The point of reference for optimal HDL-C was 40 mg/dl in all cases.

Results: We observed that most of patients did not receive HT at admission although it was recommended according to their CVR in addition to their lipid profile (table). In addition, the percentage of patients who reached goals levels of LDL-C at admission did not get over 50% in both groups (primary and secondary prevention criteria). 97.2% of the patients received HT at discharge. During the follow-up after discharge, 81.2% of the patients achieved their LDL-C goals (41.2% achieving LDL-C levels under 70 mg/dl). The average of LDL-C reduction with HT was 15.19% after discharge. With respect to HDL-C, 62.3% of the patients were into optimum levels.

Conclusions: Almost half of the patients hospitalized with ACS diagnosis presents LDL-C levels at admission over the secondary prevention recommendations. An important percentage of patients did not achieved therapeutic goals after discharge despite the widespread use of HT. The achievement of optimum levels of HDL-C remains still a therapeutic challenge.

RV-132
MORNING BLOOD PRESSURE SURGE & DIPPER PHENOMENON, TWO FACES OF THE SAME COIN, THE "CIRCADIAN RHYTHM"

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Objectives: 1) To assess if morning blood pressure surge (MBPS) is related to dipper phenomenon. 2) To evaluate if MBPS has a negative impact on the kidney, left ventricular hypertrophy (LVH) or vascular inflammation.

Material and method: 224 subjects, N = 191 of them with adequate recordings were evaluated, including n = 141 (73.4%) hypertensives, 106 of them under antihypertensive treatment; n = 100 (52.1%) with chronic hyperglycaemia; n = 45 (23.4%) smokers. 24-h ambulatory blood pressure: Spacelabs 90207. MBPS calculated according to Kario as: 1) Sleep-through MBPS: Morning systolic blood pressure (SBP) as the average during the first 2hours after waking, minus lowest SBP during the night (average SBP of 3 readings centred on the lowest night-time reading); 2) Prewaking MBPS: Morning SBP minus prewake SBP (the average SBP during the 2 hours just before wake-up time). Subjects classified according to average reduction in SBP and/or DBP at night compared with daytime values as: non-dipper (decrease < 10%) n = 79, and dipper (decrease ≥ 10%). Albumin/creatinine ratio (ACR) (mg/g). Glomerular filtration rate (GFR) (mL/min) by MDRD. Creatinine (Hitachi) (mg/dl).), high-sensitivity C-reactive protein (hs-CRP) (mg/L) and Cystatin C (mg/L) by Nephelometry, Siemens. Glycated haemoglobin A1C (%) (According to DCCT). LVH by echocardiography (Vivid S5, GE Healthcare). Statistical Analysis: Continuous variables as mean (Standard deviation) [minimum, maximum]. Pearson's coefficient (r). Multivariate linear regression adjusted for age, gender and antihypertensive treatment. Comparisons by t-test or Mann-Whitney's as appropriate. $p < 0.05$. SPSS v15.0.

Results: 1. Both definitions of MBPS were strongly correlated ($r = 0.821$, $p < 0.001$). 2. We split the whole population according to antihypertensive treatment. No significant differences were observed in MBPS between non-treated and treated patients. Sleep-through MBPS: 26.6 (11.5) [range: -3; 61] vs 29.1 (12.9) [-12; -59]; Prewaking MBPS: 14.1 (10.5) [-12; 37.8] vs 14.8 (12.2) [-18.7; 46.3];

Table (RV-131). Cholesterol control rates at admission depending on prevention criteria before hospitalization

Prevention criteria before hospitalization	N	Previously HT	LDL-C goal at admission (< 115 or < 100 mg/dl)	HDL-C < 40 mg/dl at admission
Primary (Not CVD nor DM)	387	20.9%	41.2%	45.7%
No hypercholesterolemia	264	NA	41.7%	48.1%
Hypercholesterolemia	123	54.5%	40%	40.6%
Secondary (CVD/DM)	417	60.7%	37.4%	55.9%
No hypercholesterolemia	166	NA	32.8%	59.6%
Hypercholesterolemia	251	75.7%	40.1%	53.5%

3. We observed a consistent relationship between the dipper phenomenon and both definitions of MBPS, independently of age, sex and antihypertensive treatment: Sleep-through MBPS: non-standardized Beta B = 9.964 with 95%CI [6.588; 13.340], p < 0.001; standardized-Beta Bs = 0.399; model R^2 = 0.166. Prewaking MBPS: B = 9.602, 95%CI [6.570; 12.634], p < 0.001; Bs = 0.414; R^2 = 0.171. 4. MBPS was not significantly related to kidney damage (ACR, creatinine, cystatin C, GFR), LVH or vascular inflammation (hs-CRP), after adjustment for age, sex and antihypertensive treatment.

Discussion: As long recognized, there is an increased risk for heart attack, stroke, and sudden death in the first few hours of the morning. In 2001, Gosse reported the phenomenon called "morning BP surge" (MBPS). It was first described in untreated hypertensive patients but later extended also to treated subjects. In 2003 Kario showed a relation between stroke risk and MBPS. For a long period, MBPS was believed systematically to increase cardiovascular disease risk, but a study in 2011 (Israel et al. Am J Hypert, 24 7, 796–801) suggested that an increase in morning BP over nocturnal levels may represent a healthier form of circadian variation.

Conclusions: 1. As previously demonstrated, the MBPS phenomenon is not exclusive to untreated patients. 2. Both definitions of the phenomenon achieve similar results, because the point is the BP sharp rise. 3. The dipper phenomenon is consistently related to MBPS, once excluded the effect of treatment, age and gender. 4. With regard to the consequences, the MBPS phenomenon had no impact on kidney damage, LVH or vascular inflammation. 5. Are both phenomena two faces of the same coin?

RV-134
OBSERVATIONAL STUDY OF HEART-HEALTHY HABITS IN A HEALTH CENTER

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Objectives: Cardiovascular disease is the leading cause of death and disability starting at middle age in developed countries. We propose monitoring of professionals heart-healthy habits of the health center which has to inform and advise people in this area, also who are references people of these kinds of habits.

Material and method: We have interviewed all 54 professionals who work at the Health Center of Rota and we have asked about healthy lifestyles, if they are hypertensive, diabetic or dyslipidemic. Also we measured their height, abdominal circumference and weight.

Results: 18 of 54 professional from Rota Health Center were physicians (P), 12 nurses (N), 4 Aux Nursing (A), 5 Orderlies (C), 1 dentist (DT), 1 midwife (M), 1 Ray technician (R), 1 Social Worker (T), 4 cleaners (Cl), 4 Pediatricians (Pe) and 3 Administration (Ad). Smoke 18.5%: 2 P, 3 D, 1 A, 1 C, 2 L, 1 Ad. 27% drink alcohol: 6P, 3N, 3C, 1D, 1M, 1R. They usually play sports, at least 3 times a week 57.4%: 8P, 10N, 3A, 4C, 1M, 1R, 1Cl, 2Pe, 1AD. They usually eat more than 3 eggs during the week: 18.5%: 2P, 1A, 3C, 1Cl, 2Pe, 1AD. They usually eat fish, 87% 16P, 8N, 3A, 5C, 1D, 1M, 1R, 1T, 4Cl, 1Pe, 2ad. They usually eat vegetables, 90% 18P, 12N, 3 A, 5C, 1M, 1T, 4Cl, 3Pe, 2AD. They don't feel stressed: 42% 10P, 6N, 3C, 1D, 1Pe, 1R, 1Cl, 1P, 2AD. They Sleep 7-8 hours: 55%: 8P, 8N, 3A, 4C, 1D, 1M, 1Cl, 1Pe, 2Ad. They feel physically well 66.6%: 15P, 9N, 2A, 3C, 1M, 1R, 1T, 2Cl, 1Pe, 1 Ad. The average BMI among men was 26.8 and for women 24.2. The abdominal circumference midway between the men was 94.8 (4 over 102) and 81.3 for women (6 over 88). Mean systolic is 124, with the 20% above 140. The mean diastolic tension is 72.3, with 7.5% above 84. Only 13% considered to have a sedentary lifestyle. No one is diabetic, 11% are hypertensive and 14.8 have dyslipidemia.

Discussion: Despite the increase in the population´s health knowledge, preventive awareness from public authorities and frequent campaigns, 5 million people in Spain are admitted to our hospital for coronary heart disease. In the world population smoke 32% (WHO), in Spain 17.65% (SEN), and in our Health Center 18%, slightly above the Spanish average. It is noteworthy that only 4% of men do it, increasing the percentage to 31% for women. People in Spain Play sports 40% (UV), We can see it´s much higher (57.4) in our health center, We find a big difference between men and women (49% men and 31% women). We have known than men´s percentage at health center is much higher from the Spanish one (66.6), but women fall down to 25%. Spanish sleeps an average of 7.22 (INE), we found that only half of CS professionals do it (55%) with no difference between sexes. About 87% of our professional usually eats fish and 90% fruit, well above 25% and 65% of national average (FP).

RV-135
TYPICAL AND EMERGING CARDIOVASCULAR MAIN RISK FACTORS ON PATIENTS HOSPITALIZED FOR ACUTE ISCHEMIC STROKE ON MEDICAL AREA FROM A SAS SPECIALTY HOSPITAL

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Objectives: Our target was to describe obesity, pathologic waist perimeter and different typical and emerging cardiovascular risk factors on patients hospitalized for acute ischemic stroke event at medical services in our hospital.

Material and method: Transversal chart study where they were revised patients hospitalized for acute ischemic stroke event at Internal Medicine and Neurology Services from our centre between December 1st 2011 and April 30th 2012. We made up a protocol to create a database with different features: age, sex, BMI, waist perimeter, DM, blood pressure, cholesterol and its fractions, triglycerides, lipoproteins and homocystein (on younger than 55), smoking and physical activity.

Results: 92 patients were included, 57 men, 35 women; age between 46 and 95 years old, hospitalized for acute ischemic stroke event (11 patients younger than 55). 54 patients (58.69%) did have IBM higher than 30, 39 obesity grade I, 11 grade II, 4 grade III. 49.01% patients had pathologic waist perimeter (more than 102 centimeters on men, more than 88 on women). Related to cardiovascular risk factors, we noticed that 67.4% were hypertensive, 53.3% smokers or did smoke before, 46.8% DM, 45.7% had high cholesterol level, 41.4% had low HDL, 35.9% had sedentary life, 32.6% had high triglycerides level. Patients younger than 55, 28.1% and 18.8% had high homocysteine and lipoproteins levels respectively.

Discussion: We see high incidence of obesity (58%) and pathologic waist perimeter on these patients. The most prevalence cardiovascular risk factors were hypertension, smoking either current or past and DM without forgetting high cholesterol levels, low HDL levels and sedentary life. Homocisteinemia medium incidence and medium/low hyperlipoproteinemia on young patients with stroke.

Conclusions: 1. Obesity and high waist perimeter appears in high number of patients hospitalized in our section for acute ischemic stroke event. 2. Other cardiovascular risk factors as blood pressure, smoking, DM and high cholesterol levels appear on a high percent

of patients. 3. It is necessary to control cardiovascular risk factors as a secondary prevention for new cardiovascular ischemic event based on clinic guidelines. 4. It would be ideal to calculate cardiovascular global risk in our patients without depending of the attributable risk of the different CVRF, in spite of this, we found the reason for the last discrepancies about definition and significance of metabolic syndrome.

RV-136
TYPICAL AND EMERGING CARDIOVASCULAR MAIN RISK FACTORS (CRF) ON PATIENTS HOSPITALIZED FOR ACUTE ISCHEMIC CORONARY SYNDROME ON A MEDICAL AREA FROM A SAS SPECIALIZED HOSPITAL

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Objectives: The target is to recognize obesity, pathologic waist perimeter and typical and emerging cardiovascular risk factors on patients hospitalized for acute ischemic coronary syndrome on medical area from our hospital.

Material and method: Transversal chart review from patients hospitalized for acute ischemic coronary syndrome on Internal Medicine and Cardiology Services from our centre between December 1st 2011 & April 30th 2012. We made up a protocol to create a database with different features: age, sex, BMI, waist perimeter, DM, blood pressure, cholesterol and its fractions, triglycerides, lipoproteins and homocystein (on younger than 55), smoking and physical activity.

Results: 116 patients were included, 82 men, 34 women; age between 38 and 92 years old, hospitalized for acute ischemic coronary event (21 patients younger than 55). 69 patients (59.48%) had IBM higher than 30, 41 obesity first grade, 17 second grade, 8 third grade. 50.86% patients had pathologic waist perimeter (more than 102 centimeters on men, more than 88 on women). Related to cardiovascular risk factors we noticed 61.2% were hypertensive, 56.89% were smokers or did smoke before, 53.44% DM, 43.96% had high cholesterol levels, 43.1% had low HDL levels, 34.4% had sedentary life, 42.4% had high triglycerides levels. Patients younger than 55, 28.57% and 19.04% had high homocystein and lipoproteins levels respectively.

Discussion: We see high incidence of obesity and pathologic waist perimeter on these patients. The most prevalence cardiovascular risk factors were hypertension, smoking either current or past and DM without forgetting high cholesterol levels and low HDL levels, and hypertriglicerids. Homocisteinemia, medium incidence and medium/low, hyperlipoproteinemia on young patients with acute ischemic coronary syndrome.

Conclusions: 1. Obesity and high waist perimeter appears on high number of patients hospitalized on our section for acute ischemic coronary event. 2. Other cardiovascular risk factors, such as blood pressure, smoking, DM and high cholesterol levels appear on a high percent of patient. 3. On young patients with acute ischemic coronary event, it is important to determine new factors such as homocisteinemia or lipoproteins, as well as to evaluate the presence of thrombotic pathologies. 4. It would be ideal to calculate cardiovascular global risk in our patients without depending of the attributable risk of the different CVRF, in spite of this, we found the reason for the last discrepancies about definition and significance of metabolic syndrome.

RV-137
DESCRIPTIVE ANALYSIS HOSPITALAR/CLINICAL CONTROL BY MONITORING LIPID LEVELS ON PATIENTS WITH ACUTE ISCHEMIC CORONARY EVENTS

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Objectives: Recognize monitoring degree control of lipids levels on patients who had previous ischemic coronary event.

Material and method: We included patients hospitalized on Cardiology Department from Puerto Real University Hospital (Cadiz) during 2011, for different reasons (acute coronary syndrome, pacemaker implantation, atrial fibrillation with fast response, etc.). Studied variables: monitoring lipid levels control from 3 previous months before hospitalization or during hospitalization (triglycerides - TG-,-CO-cholesterol, HDL-C, LDL-C, apolipoprotein A and/or B). Data were analyzed as a descriptive chart study.

Results: 392 patients were selected. From these, 50% with dyslipidemia. Such patients were requested for TG levels on 96.939% cases, CO at 96.684%, HDL-c on 93.878%, while LDL-c was only requested on 56.888% of patients. Apoprotein A and/or B had a minimum follow-up 4.338%.

Discussion: There is an irregular lipids levels monitoring on our area. This is mainly due to poor monitoring of LDL-c levels, essential for cardiovascular global risk decrease control. It is necessary to raise awareness among medical and hospitalary/outpatient lipids range level achieve on cardiovascular risk control through monitoring there for achieve correct treatment.

Conclusions: We must improve lipids levels control based on current recommendations. This requires making an adequate lipid level monitoring, and especially LDL-c level for an appropriate decrease cardiovascular global risk.

RV-138
CARDIOVASCULAR RISK ESTIMATION IN PATIENTS WITH SCLERODERMA

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Objectives: Cardiovascular disease (CVD) risk is the result of multiple interacting risk factors. SCORE (Systematic Cardiac Risk Evaluation) is a risk estimation tool to help in clinical and therapeutic management. Autoimmune diseases, such as escleroderma, are characterized by enhanced atherosclerosis and higher cardiovascular morbidity rates than the general population. Scleroderma vasculopathy, endothelial dysfunction, as well as inflammatory immune response underlying the disease may be involved in the pathogenesis of atherosclerosis. Here we present the CVD risk estimation in patients suffering from scleroderma.

Material and method: We reviewed medical records from 20 patients suffering from scleroderma who attended to Internal Medicine Outpatients Clinics. Clinical and biological data including age, gender, hypertension, dislypemia, smoking history and diabetes were recorded. Mean values for quantitative variables were calculated as well as percentage for qualitative ones. SCORE index was calculated using recommended web application of European Guidelines on Cardiovascular Disease Prevention in Clinical Practice (2012).

Results: Up to 92% of our patients were female, with mean age of 57 years. 39% had been diagnosed of hypertension and all of them were receiving angiotensin-converting enzyme inhibitors

treatment. Just 18% of them had LDL cholesterol over 160 mg/dl. None of the patients had previous diagnosis of diabetes and 7 of them were former smokers. When applying SCORE system, 35% of our patients showed moderate to high cardiovascular disease risk (5-10% and > 10%) and 65% showed low risk (1-5%).

Discussion: Patients with escleroderma have moderate or high cardiovascular risk despite diabetes or dyslipemia rates were not elevated. Some other disease-related factors such as vasculopathy, endothelial dysfunction, or inflammatory immune response could contribute to enhance cardiovascular risk. It is probable that a more strict control on classical cardiovascular risk factors could be advisable.

Conclusions: A great number of patients with scleroderma have moderate or high cardiovascular risk. Hypertension rates were elevated in this cohort, contributing to increase CVD risk. It is possible that other disease-related factors may contribute to rise cardiovascular risk in these patients.

RV-139
PERCEIVED PHYSICAL APPEARANCE COMPARED TO THE LIFESTYLE AND HEALTH HABITS IN HIGH SCHOOL STUDENTS OF A PUBLIC SCHOOL IN THE BAY OF CADIZ

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Objectives: In today's society, there is a change of lifestyle of the population over previous decades. There is a clear tendency to give great importance to the external image, and how that image can influence the daily activities of adolescents. Therefore, our goal is to know the activities of a group of teenagers and how it influences the perception of themselves for the realization of healthy practices.

Material and method: We conducted a survey of secondary school students in a public school in the Bay of Cadiz. We selected a number of variables: age, toxic habits (snuff consumption, alcohol), lifestyle, subjective view of himself and appraisal of body mass index (BMI) and waist circumference (PA).

Results: 118 surveys were conducted in adolescents aged 12 to 17 years (mean age 14.6 years). We obtained the following results: Perception of adequate physical aspect 69.49%. Consumption of toxic substances (first use of snuff: 15.75 years and alcohol: 15.38 years). Habitual physical Practice (61.86%). Poor self-perceived physical appearance (30.51%) including BMI (21.76), BMI > 25 and poor perception (41.67%), BMI < 20 and low perception (19.44%). Abdominal circumference (85.87%) Poor perception and abdominal circumference (91.15 cm) of which > 90 cm (38.89% with an average 103.21 cm) and lower than 80 cm (16.67%). Average height in poor subjective physical appearance (162.21 cm). Poor subjective and consumption of tobacco and/or alcohol (22.22% and 36.11% respectively), presence of stress 46.6%, 61.8% practiced sport.

Discussion: Stresses the early onset of drug and alcohol consumption at an early age (15.565%) with 55.92% of respondents who start an early consume. Regarding healthy habits, like good night resting, it appears in a large majority of our patients (85.59%), with 30.51% inadequate perception of its image, emphasizing parameters in this group like BMI < 20 or > 25 on 69.44% and 162.21% size (predominantly < 150 cm [68%]). Our group present regular physical activity in 61.8%.

Conclusions: There is a big change in the image profile and healthy habits (nutrition, physical exercise, health practices, etc.) present in adolescence. Currently much attention is paid to the external physical perception, offering continuous demands in an increasingly faster society, time constraints of a life more and more away from tranquility and based more on unhealthy habits. It is necessary to try to convey recommendations healthy lifestyles to promote effective primary prevention, and the role of the Internal Medicine physicians is crucial in the overall assessment of cardiovascular risk factors.

RV-140
PREVALENCE OF HYPERTENSION IN A COHORT OF SAHARAHUIS DIABETIC PATIENTS FROM REFUGEE CAMPS

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Objectives: To assess the prevalence of arterial hypertension (AH), proportion of treated population and control rate in a cohort of patients receiving specific care for diabetes and hypertension in a Saharawi refugee population.

Material and method: It's a descriptive, observational, longitudinal and retrospective study conducted between years 2005 and 2010 of a cohort of patients Saharahuis from a refugee camp who received specific medic care for hypertension and diabetes mellitus. Quantitative variables with normal distribution were expressed as mean and standard deviation, while qualitative variables are expressed as percentages. Statistical analysis of the data was performed using SPSS Data Editor Statistics, version 17.

Results: Data were collected from 1,281 patients between 2005 and 2010. 719 (56.1%) were women, and 562 (43.9%) males. The mean age was 55.1 ± 12.7 years, 59.16 ± 10.9 in men and 53.3 ± 12.3 in women ($p < 0.001$). 69% of patients (883) were diabetic, of whom 59.5% are women. 54.2% (479) of diabetic patients were also hypertensive. Overall 733 patients (57.2%) were hypertensive (56.3% women). The mean values of blood pressure (BP) in non diabetic hypertensive patients were 159.3 ± 26.7/96.9 ± 14.0 mmHg. The mean values of BP in diabetic hypertensive patients were 24.0 ± 159.5/94.1 ± 12.5 mmHg. There is a statistically significant difference in DBP between the two groups of hypertensive patients, which could be explained by the significant difference in DBP between genders (significantly higher in women). Both weight and body mass index (BMI) were significantly associated with blood glucose and blood pressure (both systolic and diastolic). Also, age is associated with weight, BMI and BP, but not with blood glucose levels. 89.9% of hypertensive patients receive at least one drug treatment. However, the degree of control of hypertension is only 10% in Saharawi people, poor in both diabetic (7.3%) and non-diabetics (11.0%). Angiotensin converting enzyme (ACE) inhibitors are the most prescribed drugs both in monotherapy (58.3%) as part of any combination (17.2%).

Conclusions: 1. AH is a relevant disease among patients treated with a prevalence of approximately 60% in the population studied. 2. There is a poor control of BP, although the high proportion of patients receiving drug treatment. 3. The prevalence of DM in the studied population is 69%, of which over half are in addition to hypertension (54%). 4. There are significant differences in DBP among hypertensive patients without diabetes and diabetic hypertensive patients. This may be attributable to the higher proportion of female between diabetic population. 5. The ACE inhibitors are the drugs most commonly used to control BP (more than 75% of treatments). 6. The results of treatment are influenced by many variables difficult to record, as no measurable intake of salt through the water, variety of diet and physical inactivity. The study has obvious statistical limitations, given the precariousness of means, variability of observing conditions and difficulty of data collection.

RV-141
AMBULATORY BLOOD PRESSURE MEASUREMENT IN PATIENTS OF INTERNAL MEDICINE OFFICES

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Objectives: To describe the cardiovascular risk factors, the Ambulatory Blood Pressure Measurement (ABPM) parameters and the degree of control of arterial blood pressure in a group of patients of Internal Medicine offices.

Material and method: 190 patients were included, aged 18 to 93 years and followed up in Internal Medicine offices in a tertiary care hospital, who had at least one of the next indications: suspected white-coat, resistant, high-risk, untreated and borderline hypertension; assessment of dipper status; assessment of drug treatment efficacy. 24hour ABPM was performed with Spacelabs 90207 devices. The monitors were programmed to obtain BP readings at 20-min intervals during the daytime and at 30-min intervals during the night-time. Four circadian patterns were defined: dipper, extreme dipper; non-dipper and riser.

Results: 57.9% men, 42.1% women with average age 59.9 ± 15.77 years. The cardiovascular risk factors are collected in the table 1. ABPM parameters are reflected in table 2. The circadian patterns obtained were: 41.71% dipper; 35.29% non dipper; 9.63% extreme dipper; 13.37% riser.

Conclusions: 1. An elevated percentage of patients had high cardiovascular risk factors. 2. ABPM system contributes to a more accurate control of blood pressure and to optimize the treatment.

RV-143
REFINING THE CARDIOVASCULAR RISK: ADVANTAGES OF SPECIALIZED EVALUATION, INCLUDING ABMP

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Objectives: To describe the cardiovascular risk before and after an advanced evaluation, including Ambulatory Blood Pressure Mesurement (ABPM) performance.

Material and method: 190 patients were included, aged 18 to 93 years, followed up in Internal Medicine offices in a tertiary care hospital. Several data were collected: anthropometric variables (age, weight, height, waist circumference, BMI), defined cardiovascular risk factors (smoking habit, diabetes mellitus, dyslipidaemia, hypertension and a family history of premature cardiovascular disease), target organ damage (left ventricular hypertrophy, microalbuminuria) or associated clinical disease (ischemic cardiomyopathy, stroke, peripheral arterial disease, renal damage...); analytic parameters (creatinine, total cholesterol, HDL, LDL, TAG). ABPM registries were performed. Details about antyhipertension treatment (statins, beta blockers, renin-angiotensin-aldosterone system inhibitors, antiplatelet agents and others) were defined.

Results: 57.9% men, 42.1% women with average age 59.9 ± 15.77 years. The distribution of the cardiovascular risk factors was: 8% family history; 14.8% smoking habit; 22.6% established cardiovascular diseases. These factors remained invariable after specialized evaluation unlike the ones collected on the table 1. Table 2 collects the cardiovascular risk variation before and after an advanced evaluation ($p < 0.01$).

Conclusions: 1. Identification of cardiovascular risk factors is more refined in specialized offices. 2. ABPM is a very useful tool for the identification of patients at cardiovascular risk. 3. The degree of risk in specialized offices is higher than the established previously.

RV-145
TREATMENT OF TYPE 2 DIABETES MELLITUS WITH A TUBULAR GLUCOSE TRANSPORTER INHIBITOR: CAN THE "DOUBLE BLIND" TREATMENT BE KNOWN?

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Objectives: Despite multiple oral antidiabetic drugs, glucose metabolism is undercontrolled in most of the patients with type 2 diabetes (T2D). Tubular glucose transporter inhibitors are being developed in Spain. These drugs may be administered at any moment in the disease evolution with any of the hypoglycaemic agents available. We have contributed to the development of one of these drugs and based on weight and HbA1c variations at 52

Table 1 (RV-141). Cardiovascular risk factors

Family history cardiovascular diseases	8%	Established cardiovascular diseases	22.6%
DM (Gluc > 125 mg/dl)	19.1%	metabolic syndrome	38.8%
Smoking habit	14.8%	Atherosclerosis	4.2%
Hypercholesterolemia (Colt > 175 mg/dl)	70.9%	Nephropathy	18.7%
LDL > 115 mg/dl	51.6%	Age (M > 55; W > 65)	52.47%
HDL < 40 mg/dl men	27.4%	Left ventricular hypertrophy	21.6%
HDL < 45 mg/dl women	24.6%	Alb/Cr (M > 22 mg/g; W > 31 mg/g)	23.25%
TAG > 150 mg/dl	24.1%		

Table 2 (RV-141). ABPM parameters

	Average	SD
SBP 24hours	128.58	14.23
DBP 24hours	76.99	10.69
SBP daytime	132.03	14.62
DBP daytime	80.18	11.14
SBP night-time	119.25	16.38
DBP night-time	68.61	10.21

Table 1 (RV-143). Variation of cardiovascular risk factors

	Before	After
DM (Gluc > 125)	21.2%	31.21%
Dyslipidaemia	51.9%	75.12%
HBP	64.7% (pre ABPM)	87.36% (ABPM)
Target organ damage	26.8%	29.05%

Table 2 (RV-143). Cardiovascular risk variation (SEH-LELHA)

	Risk previous ABPM					
Risk post ABPM	Normal	Low	Moderate	High	Very High	Total risk pre-ABPM
Normal	3.84%	3.29%	2.19%	0.55%	0.55%	10.43%
Low	1.65%	9.89%	7.14%	2.195	2.19%	23.08%
Moderate	0.55%	2.19%	12%	5.49%	0.55%	20.88%
High	0%	3.29%	4.39%	15.93%	1.65%	25.27%
Very high	0%	0%	1.65%	3.29%	15.38%	29.32%
Total risk post ABPM	6.04%	18.68%	27.47	27.47%	29.32%	182 patients

weeks we aimed to assess whether patients were assigned to the active drug or placebo arm of the "double blind" study.

Material and method: We have collaborated in a multicentric, randomized, double blind, parallel study to assess the efficacy and safety of a tubular glucose transporter inhibitor versus placebo in patients with T2D and HbA1c of 7-10.5% receiving metformin. We assumed that a given patient was randomized to active therapy if, at week 52, weight diminished > 2 Kg and HbA1c was reduced by > 0.4%. A given patient was thought to be assigned to placebo if both figures were less at week 52.

Results: We included 24 patients among which 21 were randomized (males, 8); mean age 68 years (range, 57-80 years). 18 patients concluded the 52 weeks double blind therapy period. Baseline mean blood glucose was 149 mg/dL (range, 113-242 mg/dL) and mean HbA1c concentration 7.9% (range, 6.8-9.6%). Mean baseline HbA1c decreased from 7.9% to 7.5% (mean reduction, -0.4%). We assumed that 12 patients received active therapy (mean HbA1c decrease, -0.9%) and 6 patients were assigned to placebo (mean HbA1c increase, +0.6%). Weight decreased from a mean baseline of 80 Kg (range, 57.7-102.8 Kg) to 76.3 Kg (range, 54.9-102.9 Kg; mean decrease,-3.7 Kg). We assumed that 11 patients were assigned to active therapy (mean weight decrease, -5.5 Kg) and 7 patients to placebo (mean decrease, -0.5 Kg). According to the individual decreases in weight and HbA1c 11 patients (63%) could be assigned to one of both double blind study arms. Three urinary infections were reported in the 18 patient-year period; two were attributed to patients supposedly assigned to the glucose transporter inhibitor.

Conclusions: In this double blind study comparing a tubular glucose transporter inhibitor versus placebo in T2D patients, weight and HbA1c variations at 52 weeks allowed to suspect the assigned therapy in over half of the patients.

RV-146
ADIPONECTIN: CURRENT LEVELS AND GENE EXPRESSION IN ADIPOSE AND LIVER TISSUES IN MORBIDLY OBESE WOMEN WITH NAFLD

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Objectives: To Determine the plasma levels of adiponectin and its gene expression in visceral and subcutaneous adipose tissue and liver, as well as to investigate differences among morbid obese patients (normal liver, simple steatosis, NASH) and healthy controls.

Material and method: We analyzed the livers of 90 Caucasian women: 4 lean (BMI < 25 kg/m^2) and 86 morbid obese (BMI > 40 Kg/m^2). Among morbid patients, we found 18 with normal liver (NL), 24 with simple steatosis (SS) and 44 with NASH. The liver tissues were evaluated by an expert hepatopathologist. The samples were obtained from morbid obese patients who underwent bariatric surgery and from control women who underwent liver biopsy with diagnosis purpose. Both groups were of similar ages. Those patients who had acute or chronic inflammatory diseases, infectious diseases, terminal malignancy or who took medication that could alter the metabolic and lipid parameters, were excluded. The plasma levels of total adiponectin and HMW adiponectin isoform were obtained by ELISA. Gene expression of adiponectin mRNA was performed with RT-PCR. Statistical analysis was performed using SPSS/PC + (V19.0, Chicago, Illinois, USA). P values < 0.05 were considered statistically significant.

Results: The anthropometric, clinical and biochemical parameters show significant differences between the healthy control group and morbid obese patients). Transaminase values are higher in obese patients with SS and NASH compared to obese NL ($p < 0.05$). The circulating levels of adiponectin and HMW adiponectin are lower in morbid obese patients compared to healthy subjects ($p < 0.001$). The mRNA expression of adiponectin is significantly reduced in the subcutaneous adipose tissue and the liver of morbid obese patients compared to healthy controls ($p < 0.001$), showing no differences in the visceral adipose tissue. In morbid obese patients, the circulating levels of adiponectin and HMW adiponectin are lower in SS and NASH patients compared to morbid obese with NL. There were no differences in gene expression of adiponectin among subgroups (NL, SS, NASH) in adipose subcutaneous and liver tissue. In the visceral adipose tissue, lower levels of mRNA adiponectin in subjects with SS and NASH compared to morbid obese with NL are observed ($p < 0.05$).

Conclusions: Circulating levels of adiponectin are lower in morbid obese patients versus healthy controls and in morbid obese SS/NASH patients compared to morbid obese with NL. The mRNA expression of adiponectin is decreased in the subcutaneous and liver tissue of morbid obese patients compared to healthy controls and showed no significant differences between subgroups of morbid obese patients in subcutaneous and liver tissues. In adipose visceral tissue, the mRNA expression of adiponectin is lower in morbid obese SS/NASH patients compared to morbid obese with NL.

RV-147
ASSESSMENT OF A NEW PROTOCOL FOR INPATIENTS INSULIN THERAPY

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Objectives: A new protocol for inpatients insulinization has been developed and established in our center in late 2010. It is based on SAEN (Endocrinology and Nutrition Andalusian Society) recommendations. We evaluated adherence to protocol.

Material and method: 122 patients receiving insulinotherapy were randomly selected from a monthly pharmaceutical prescription list. Patients with hospital length of stay less than 24 hours; inpatient death; and single elevated glycemia without posterior confirmation were excluded from the study. We have done a descriptive study. We reviewed medical histories and we analyzed variables as age, gender, hospital service in which they were admitted, basal glycemic number, Hb A1C (in the three previously months), weight, BP rate, hospital treatment prescription and if it is agree with our protocol.

Results: A total of 122 charts were reviewed. Most of them were inpatients in Internal Medicine ward (85.25%), General Surgery ward (7.37%), Emergency Room (3.28%), Orthopaedics and Urology Ward (1.64% each one) and just 1 patient in Otorhinolaryngology Ward (0.81%). 68 of the patients were male. Mean age was 75 years, without gender differences by age. Only half of the patients had records of Hb A1C (Mean: 7.69%, range from 5.6 to 11.9%). SBP mean was 132.39 mmHg and DBP was 71.34 mmHg. Most of the patients were on intensive insulin regimen during the hospitalization (86.88%). Some charts missed the description of insulin correction doses (3.77%) (all of them using glargine as basal). It was prescribed to the most of the patient an intensive insulin regimen during the hospitalization (106, 86.88%), with priority use of basal insulin glargine as basal in 87.73% and levemir only in 8.49%. Four patients (one of them in the emergency room) (3.28%) had only scheduled fast insulin with correction regimen. 7 of these patients were on fasting insulin without prandial bolus or correction; 2 with biphasic pattern; 1 on OADs; 1 with fasting insulin without prandial bolus or correction; and 1 without any regimen. The compliance of the protocol was high, 84.42%.

Conclusions: The compliance of the protocol was high, without differences between services, in spite of a high percentage of insulin prescription in surgical patients was performed by a physician from the medical area. Generally, they had good BP and basal glycemic control during the hospitalization. Most of the patients were on glargine regimen for basal glycemic control. Few cases had mobile regimen (most of these in surgical wards). The evaluation of cardiovascular risk was incomplete. Weight values were and previous metabolic control information was incomplete.

RV-148
DO PATIENTS WITH BONE METABOLISM DISORDERS PRESENT HIGH VASCULAR RISK?

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Objectives: The objective of this study is to assess whether a vitamin D deficiency leads to an increase of vascular risk in relation with certain factors, such as the increase of arterial pressure values and PCR as an independent risk marker. We have also studied whether patients with chronic kidney failure and hypovitaminosis D have presented a higher number of vascular events (cerebrovascular disease and coronary disease) during one year than those who do not present those disorders.

Material and method: We have performed a transversal and retrospective study that included 98 patients (48 men and 50 women) of ages between 30 and 80 years old, who were admitted at the Unit of Internal Medicine of the Salamanca in the last year. In their first visit, they all went through the following steps: Anamnesis that includes the personal history of the patient and the history of cardiovascular events (AMI, angina, CVA) and treatment prescribed in the first visit. Physical exploration: blood pressure was determined three times, and the two last ones were considered measurements (HBP was defined as ASP > 140 mmHg and ADP > 90 mmHg). Analysis that includes levels of glycemia, urea, creatinine, PCR and vitamin D levels. It is performed after12-hours fasting. Electrocardiography. The statistical analysis was performed with SPSS version 13.0.

Results: In our 98 patients, the average age was 70.4 years. The average blood pressure levels in uncontrolled patients was 148.64/96.34 mmHg, vitamin D levels were 25.48 and ultrasensitive PCR levels were 2.7 With regard to the patients in our study, 64.28% presented chronic kidney failure, and the proportion of vascular events was ictus: 42.8%, coronary disease: 22.2% and no events: 34.92%.

Discussion: With these findings, we can see how the patients with a vitamin D deficiency present higher BP levels and a worse pharmacological control, in spite of an optimal treatment for HBP. These results are more evident in the group of women. We can also state that kidney failure is not only an independent marker of vascular risk, but it can also be enhanced by hypovitaminosis D, which further increases the appearance of events such as ictus or coronary disease. PCR is also elevated in this group of patients, which means an additional risk factor. Some observational studies have observed that hypovitaminosis D may represent a 50-80% increase of vascular risk compared with patients who do not present it, which matches the results of our study. All these findings are coherent with what was found in the literature, proving this association, although we must take into account the fact that the findings described represent associations, instead of causality.

Conclusions: The hypovitaminosis D should be taken into account in patients with poorly controlled hypertension orcoronary disease, and that a screening for this type of patients might be useful. Although there is still no consolidated scientific evidence, we might consider the use of supplementation with 1.25 (OH)2D in patients with high vascular risk in which the traditional pharmacological therapy is insufficient.

RV-149
RELATIONSHIPS BETWEEN ARTERIAL STIFFNESS AND CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH HYPERTENSION

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Objectives: Hypertension has been regarded as a public health problem due to its increasing prevalence all over the world. Its complications lead to morbidity and mortality. Hypertensive patients have strong evidence of endothelial dysfunction. Recently, some novel endothelial dysfunction parameters such as pulse wave velocity, augmentation index and central aortic pressure have been

investigated as predictive markers of atherosclerosis. Therefore, relationships between cardiovascular risk factors and arterial stiffness parameters in essentially hypertensive patients were investigated in the present study.

Material and method: The study population included 109 patients (63 females, 46 males) diagnosed as essentially hypertensive on outpatient clinic basis. In the all subjects were investigated according to the recommendations of hypertension guidelines. Arterial stiffness measures including pulse wave velocity, augmentation index and central aortic pressure were also applied in all the study patients. Then, the relationships between traditional atherosclerosis parameters and arterial stiffness markers were investigated.

Results: Although the systolic and diastolic blood pressures between the two groups (women and men) were indifferent from each other, augmentation index and central aortic pressure were found significantly higher ($p < 0.001$, $p = 0.03$, respectively) in women. Augmentation index was also found significantly higher ($p = 0.04$) in women smokers compared to nonsmoker ones in subgroup analyses.

Conclusions: The higher augmentation index and central aortic pressure values were observed in women than in men. These data offers new evidences for the role of sex hormones in the pathogenesis of atherosclerosis in women.

RV-150
MEDICATION ADEQUACY AT DISCHARGE ON CARDIOVASCULAR DISEASE IN AN INTERNAL MEDICINE UNIT. FOLLOW-UP THROUGH THREE YEARS

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Objectives: Medication adequacy on cardiovascular disease is the formal process of designing a treatment accord to the recommendations of current European Guidelines. We analyzed if patients with ischemic stroke, peripheral arterial disease and/or coronary artery disease had an appropriated treatment at discharge from our Internal Medicine Floor.

Material and method: We reviewed discharge reports of Internal Medicine Unit patients with cardiovascular disease during March of 2010, 2011 and 2012 at Hospital Universitario Fundación Alcorcón (Spain). These reports were collected using our hospital electronic clinical history. Each report was analyzed by two different researchers in order to detect whether it contained an accurate treatment for these pathologies. Differences between researchers were argued with a third member in order to obtain an agreement. We considered a good medication adequacy: for ischemic stroke, the use of antiplatelet drugs or anticoagulants, antihypertensives and statins; for peripheral arterial disease, the use of antiplatelet drugs and statins; and finally, for coronary artery disease, the use of antiplatelet drugs, statins, beta-blockers and angiotensina conversion enzyme inhibitor (ACEi) or angiotensin II receptor antagonist (ARA-II). In February of 2011 and 2012, we performed an informative presentation to the Unit to remind the European Guidelines for Cardiovascular Diseases. Data were collected using ACCESS 2003® database, and they were further analyzed with the SPSS 15.0® software. All patients signed a previous informed consent in order to authorize us to use their data. This study was approved by the ethical committee of the hospital.

Results: We collected 162 patients with cardiovascular disease through the three years: 65 patients in 2010, 64 in 2011 and 33 in 2012. Mean age was 81 years, and 47.5% were males. They were at hospital an average length of 7.8 days. Mean Charlson Index was 5.7. 33.3% of the analyzed patients were diabetics and 22.8% had cognitive impairment. Ratio for each pathology was: ischemic stroke, 57.4%; peripheral arterial disease, 14.2%; and, coronary artery disease, 40.1%. The least prescribed drugs were: statins, for all pathologies and years (between 40 and 60%); beta-blockers and ACEi/ARAII for coronary artery disease, both about 60%. Almost all patients who needed antiplatelet drugs or anticoagulation, had them in their treatments. More than 80% of patients with ischemic stroke had antihypertensive drugs. Global good medication adequacy was 37.7%. For each year, proportion of good adequacy was: 2010, 33.8%; 2011, 42.2%; 2012, 36.4%. There was not any statistical significant difference. We also adjusted these results with age, Charlson Index, dementia and sex with a logistic regression model. We did not obtain any statistical significant result.

Discussion: Global rate of good adequacy is very little, despite doing informative interventions last two years. Physicians usually remember to prescribe antiplatelet drugs, anticoagulants and antihypertensive drugs; but there is an unacceptable proportion of patients who do not receive statins, beta-blockers or ACEi/ARA-II when they are indicated.

Conclusions: We have to do an effort to improve appropriate medication adequacy at discharge on cardiovascular disease, because statins, beta-blockers and ACEi/ARA-II are under-prescribed.

RV-151
PROGNOSTIC IMPLICATIONS OF HYPERGLYCEMIA IN A PRIMARY ANGIOPLASTY PROGRAM

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Objectives: High levels of glycemia are closely related to a worse prognosis and progression in patients with vascular events, by the tissue damage that occurs during acute myocardial ischemia. Objectives: the aim is to analyze the prognostic value of patients (P) admitted with a myocardial infarction with ST elevation (STEMI) according to levels of blood glucose at admission, the first and second fasting glucose.

Material and method: Are realized a prospectively analysis of 312 P with STEMI undergoing primary angioplasty from June 2007 to August 2010. Admission glycemia was determined into three strata (blood glucose < 140, between 140 and 199 and > 200) and the first two basal glycemia (blood glucose < 110, between 110 and 125 and > 126). Analyzing the incidence of mortality and cardiovascular events defined as death, recurrent ischemia, revascularization and stroke during admission and follow-up. analyzed baseline variables, mortality and cardiovascular complications.

Results: 75% of P were male. The mean age was 62 years. Hypertension were 53%, 37% were active smokers, 21% were diabetic (DM) known and 10% were diagnosed during admission. The P DM had a death rate four times higher than non-DM (12% vs 3%, $p = 0.004$). The P with high levels glucose at admission had a higher mortality (2.5%, 8.9% and 15.6%, $p = 0.005$). As well as, alterations in the first fasting glucose (2.4%, 1.4% and 11.4%, $p = 0.006$). The best predictors of events were admission glycemia (long rank: 9.2, $p = 0.01$) and the first blood glucose levels (long rank: 9.5, $p = 0.009$).

Conclusions: Patients recent diagnosed of DM during STEMI had higher mortality. The first fasting glucose and first admission glucose are good estimators of this poor prognosis.

RV-152
ASSESSMENT OF SUBCLINICAL VASCULAR DISEASE IN ADULTS WITH DOWN'S SYNDROME

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Objectives: Adults with Down's syndrome (DS) tend to present a different cardiovascular risk profile than general population; however, they have been proposed as an atherome-fee model, based on the absence of artheriosclerotic damage. The aim of our study was to compare the subclinical vascular disease between a cohort of DS subjects and another of individuals without the syndrome.

Material and method: Cross-sectional study of 56 patients recruited at the Adult Down Syndrome Unit of the Hospital Universitario La Princesa, Madrid, Spain between January and May 2012. Epidemiological, clinical, anthropometric, subclinical vascular damage parameters (augmentation index [AI], pulse wave velocity [PWV] and intima media thickness [IMT]), cardiovascular risk assessment (Framingham score) and analytical variables were measured. SPSS package was used for making the statistical analysis; results were compared with non-parametric tests.

Results: 28 adults with DS and 28 controls were enrolled (mean age DS 39.3 ± 10.7 vs 42.6 ± 12.6; 14 [50%] males with DS vs 10 [36%] in the control group; ns for both comparisons). DS adults had lower mean blood pressure (114/71 ± 13/10 vs 130/80 ± 12/8 mmHg; $p < 0.001$) and a higher body-mass index [BMI] (29.8 ± 4.9 vs 25.8 ± 3.7 Kg/m^2; $p < 0.001$) than controls; no differences were found between groups regarding waist perimeter [WP], total body fat percentage or prevalence of abdominal obesity, hypertension, dyslipidemia or diabetes. Aortic pressures estimated by applanation tonometry were lower in the DS group (systolic 103.9 ± 13.9 vs 119.3 ± 13.5 mmHg and dyastolic 71.8 ± 10.6 vs 81.4 ± 8.7 mmHg respectively), as well as pulse pressure (30.9 ± 9.6 vs 37.7 ± 7.7 mmHg), $p < 0.01$ for all comparisons. There was a trend towards a lower PWV in the DS group (6.3 ± 1.1 vs 7.1 ± 1.9 m/s, $p = 0.06$), and we found no differences between groups in AI or IMT mean values (AI 21.9 ± 16.4 vs 22.8 ± 15.3%, $p = 0.84$; IMT 0.55 ± 0.13 vs 0.53 ± 0.1 mm, $p = 0.55$, respectively). In the DS group the PWV values were only correlated to systolic blood pressure ($p = 0.019$) and not with age, whereas in the control group it was associated with age, WP and BMI (p 0.01, 0.05 and 0.01 respectively). IMT values were not associated with the presence of classic cardiovascular risk factors in any group, with only a non-significant higher mean value in diabetic patients (0.75 vs 0.54, $p = 0.12$) compared with non-diabetics in the DS group. In the DS group we found positive correlation between PWV and Framingham score ($p = 0.05$) and AI and Framingham score ($p = 0.03$), with a non-significant association between IMT and Framingham score ($p = 0.14$). In the control group, only AI and systolic blood pressure measured by applanation tonometry correlated with the Framingham score ($p = 0.05$ and $p = 0.01$ respectively).

Discussion: Despite a similar cardiovascular risk regarding classical risk factors, PWV seems to be lower in subjects with DS, being independent of age and obesity in this population and showing a positive correlation with BP levels, which are significantly lower in DS subjects despite similar prevalence of obesity and diabetes; PVW also correlates positively with the Framingham score. Aortic estimated pressures were all lower in DS individuals. No differences were found regarding IMT values.

Conclusions: Adults with DS seem to have lower subclinical vascular damage than controls, being this association independent of classical cardiovascular risk factors and correlating positively with the Framingham score. PWV could be useful in determining cardiovascular risk in this population.

RV-154
CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF NON TRAUMATIC INTRACRANIAL HAEMORRHAGES

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Objectives: The aim of this study was to analyze the clinical and epidemiological characteristics of patients with non traumatic intracranial haemorrhages (intracerebral, subarachnoid and subdural).

Material and method: We designed a retrospective study to analyze all the cases of intracranial haemorrhages in our hospital on the period comprehended from the 1 of January of 2011 to the 31 of December of 2011. All the patients discharged from hospital with diagnosis of that intracerebral, subarachnoid and subdural haemorrhages were included.

Results: We identified 60 cases with intracranial bleeding (59 patients), 58% male, mean age 70 years (31% aged > 80 years). Different types of intracranial bleeding were identified: intracerebral (44), subarachnoid (13) y subdural haemorrhages (3). The risk factors most commonly were hypertension (57%), dislipemia (27%), diabetes mellitus (22%), chronic renal failure (18%), atrial fibrillation (13.3%), haemorrhagic stroke (12%), isquemic cerebrovascular disease (10%), peripheral vascular pathology (8%), valvular disease (6.7%), coronary heart disease (5%) and heart failure (2%). Others comorbilities were anemia (30%), neoplasia (18%), alcohol intake (13%) and chronic obstructive pulmonary disease (1.7%). Regarding to treatment 37% were taking antiplatelet or anticoagulant therapy: aspirin (23%), clopidogrel (1.7%), heparin (1.7%) and oral anticoagulation (12%). Mortality was 15%.

Conclusions: Regarding to patients characteristics there were a high predominance of males, high proportion of elderly patients and intracerebral haemorrage. Hypertension was the risk factor most commonly associated with intracraneal haemorrhage. More than one third of patients were receiving antiplatelet therapy, anticoagulant or both at the moment of the haemorrhage occurrence, being aspirin the drug more frequently taken.

RV-155
ANALYSIS OF DIABETES MELLITUS PATIENTS TREATED AT A LOCAL HOSPITAL

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Objectives: We want to investigate: Diabetes mellitus patients profile in order to define and classify their co-morbilities, previous diseases and risk-factors. Show the relations between biometrical parameters and glycated hemoglobin. Discover which are pathologies related to patients hospitalized with diabetes mellitus.

Material and method: This study is a type of observational, descriptive and longitudinal, we have collected data from patients diagnosed with diabetes and newly diagnosed or who have entered into the beds of different medical specialties to the Hospital Virgen del Puerto of Plasencia in the last two years. We collected them from analytical and measurement of biometric parameters. That information is collected in a form with personal data, data related to the reason for admission, and hospital treatment history at home. Then, we followed the evolution of patients by primary care and

specialized tools through Extremadura Health Service to assess changes in laboratory parameters of patients with diabetes mellitus. Data collected on each patient, are processed by software SPSS 20.

Results: The highest percentage of diabetic patients in our study corresponds to males with 60.4%. It is important to note that the total sample, 73.6% of the sample or had no education or were primary, which means relevant because of the understanding, applicability and compliance with treatment. Related to previous diseases or risk-factors, hypertension was presented in 49%, closely followed by dyslipidemia, third EPOC is ahead of heart failure and peripheral arterial disease. This distributive sex, too different and so are quite similar. The most common reason for admission is related to respiratory disease with a 41.51%, second is the entrance for cardiovascular disease in 24.53% and third among the most common diseases of income, are digestive diseases with a 16.98%. As for BMI, only 18.9% was within normal weight ranges, being a relevant fact as glycosylated hemoglobin outside the normal range is evident mostly in groups of body mass index 25 and 35. It is shown that, the highest levels of HbA1c were found in patients with grade I obesity.

Conclusions: It is show a correlation between elevated BMI and HbA1c. Hypertension and dislypemia are most common risk-factor. EPOC is most common previous illness followed by cardiovascular pathology and arterial disease pathology.

RV-156
DECREASE IN DRUGS CONSUMPTION AFTER METABOLIC SURGERY IN DIABETIC PATIENTS

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Objectives: To determine the decrease in drug consumption (and the cost associated) in patients with type 2 diabetes mellitus with comorbidities, particularly hyperlipidemia and high blood pressure, after metabolic surgery.

Material and method: 12 patients (7 men and 5 women, mean age 59.1 years) with type 2 diabetes mellitus and body mass index (BMI) < 40 kg/m^2. They had metabolic surgery (gastrojejunal bypass) according to a protocol established by the recommendations of major scientific societies. We determined the number and approximate cost of the drugs they needed at baseline and follow-up year (antidiabetic, antihypertensive and hypolipidemic drugs) We established a value of 1 for low to medium doses of a drug (or < 0.3 IU insulin/kg/d) and a value of 2 for high doses or a drug (or insulin > 0.3 IU/kg/d). The cost was calculated with the mean cost of the 12 patients per month of treatment, using the cheaper drugs.

Results: Table 1.

Discussion: Metabolic surgery may be an alternative to conventional treatment of patients with type 2 diabetes mellitus. These patients require the use of multiple drugs to control the comorbidities associated with type 2 diabetes mellitus such hyperlipidemia and high blood presure.

Conclusions: Metabolic Surgery (gastrojejunal bypass) in patients with type 2 diabetes mellitus is very effective because it greatly reduce the consumption of drugs in patients, and remains the same or better metabolic control and blood pressure. As is known, the lower consumption of drugs leads to better therapeutic compliance.- By reducing the consumption of more expensive drugs (ARA II, insulin and DPP4 inhibitors) saving is around 95% of the cost prior to surgery. Although it is needed most comprehensive pharmacoeconomic studies, it seems clear that the savings in drugcosts per patient are very important.

RV-160
SHORT AND MEDIUM-TERM RESULTS OF METABOLIC SURGERY IN DIABETIC PATIENTS

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Objectives: To observe anthropometric and metabolic parameters of patients with type 2 diabetes mellitus who had metabolic surgery (gastroyeyunal bypass) short-term and medium-term.

Material and method: 12 patients (7 men and 5 women, mean age 59.1 years) with type 2 diabetes mellitus and body mass index (BMI) < 40 kg/m^2. They had metabolic surgery according to an established protocol by the recommendations of major scientific societies. All patients had a gastrojejunal bypass. All patients were taking medication for their metabolic control and blood pressure before surgery. Data obtained include anthropometric indices, fasting glucose, HbA1c, C-peptide, HOMA, blood pressure, lipids, and leptin.

Results: Table 1.

Discussion: Metabolic surgery may be an alternative to conventional treatment of patients with type 2 diabetes mellitus.

Table (RV-156)

	Number drugs/day (at the beginning)	Cost € patient/month	Number drugs/day (first year)	Cost € patient/month	Reduction (%)
Antidiabetic drugs	2.5	106.41	0.5	2.58	-97.57
Hypolipidemic drugs	1.5	35.44	0.33	3.17	-91.05
Antihypertensive drugs	3.5	35.37	1.16	3.19	-90.98
Total	7.5	177.22	1.99	8.94	94.95

Table (RV-160)

	Basal	1 month (% variation)	1 year (% variation)	p
BMI (Kg/m2)	34.7	30 (-13.5%)	25.7 (-25.8%)	< 0.01
Fasting glucose (mg(dL)	134	112 (-16.4)	103 (-23.1)	< 0.01
HbA1c (%)	7.4	7.1 (-4)	5.8 (-21.6)	< 0.01
C peptide (ng/mL)	3.25	2.6 (-20)	1.75 (-46.1)	0.001
HOMA	3.4	1.33 (-60.8)	0.6 (-82.3)	0.001
Cholesterol (mg/dL)	161	159.6 (-0.87)	170 (5.6)	ns
Blood presure (mmHg)	142/91	129/82	119/76	< 0.05

There are different surgical techniques, one of the most classic is gastrojejunal bypass.

Conclusions: -The gastrojejunal bypass shows some excellent metabolic control results in both, the short and medium term.-The data indicate an apparent decrease in insulin resistance and leptin throughout the first year of monitoring -Variations in lipids are also important. A year after surgery, no patient require lipid-lowering therapy.-The gastrojejunal bypass improves blood pressure control, especially in the first year.

RV-161
INCIDENCE, TEMPORAL PATTERNS AND CIRCADIAN VARIATION OF EMERGENCY DEPARTMENT ADMITTANCES FOR NON-HEMORRHAGIC STROKE. A HOSPITAL-BASED STUDY

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Objectives: To determine the incidence by age and sex, the temporal patterns and circadian variation of emergency department (ED) admittances for non-hemorrhagic stroke (NHS) episodes (including transient cerebral ischemia) in our hospital.

Material and method: Based on the computerized medical records of all assisted processes in the ED of our hospital for any cause during four consecutive years (from January 2008 to December 2011), and in preserving patients anonymity, we collected information on the age, sex, first-listed diagnosis (which was subsequently coded according to ICD-9 MC, using an application software developed by our Clinical Documentation Dept.), date and entry time of all patients attended. All these variables were imported into a database and, using the computer program SPSS® 15.0, we conducted a descriptive study and a statistical data analysis, with the objectives set out, for patients who presented an acute non-hemorrhagic cerebrovascular disease episode as main reason for attendance (ICD-9 MC codes 433 to 435).

Results: The total number of patients visiting our ED from all causes during the study period was 401678. The patients mean age (± standard deviation) was 43.7 ± 21.4 years and 50.3% were women. Among the total assisted, 1295 patients (0.32%) were mainly because of NHS. From these patients, 52.4% were men, with a mean age of 71.5 ± 13.2 years, and, 47.6% were women with a mean age of 77.3 ± 11.7 ($p < 0.001$). Nearly an 80% patients assisted by NHS were over 65 years. Season with highest NHS incidence was winter, with a 27.6%. Significant variations can be seen in the frequency of NHS during the different months of the year (December was the month with the highest incidence [9.9%] and April was the month with the lowest incidence [6.3%]). The days of the week of highest incidence were Mondays (15.3%) and Tuesdays (15.4%), whereas on Saturdays (13.3%) and Sundays (11.7%) were the days with the lowest incidence. More than a half of patients (52.6%) came to ED between 10h and 17h, with a peak between 11h and 13h (17.9%). However, in the period from 2 am to 8 am came < 5% of cases. The lowest incidence happened between 4 am and 6 am (< 1% of cases).

Conclusions: NHS is a relatively frequent and important hospital emergency, especially for those patients over 65 years old. We observe significant variations in hospital ED admissions rate for NHS among different months of the year, days of the week and hours of the day. We also find a higher incidence in winter and during the morning, and a lower incidence on Sundays.

RV-162
IS IT IMPORTANT DYSLIPIDEMIA IN A PRIMARY ANGIOPLASTY PROGRAM?

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Objectives: The relationship between cardiovascular events and elevated levels of lipoprotein cholesterol (LDL-c) is clearly established. Our aim was to determine the prognostic value of patients (P) that have suffered of a myocardial infarction with ST elevation (STEMI) and to see if they show a biggest rate of mortality, during hospitalization and their following-up according to the presence of dyslipidemia (DL).

Material and method: We prospectively included 312 P with STEMI undergoing primary or rescue angioplasty from June 2007 and June 2010. We performed a prospective cohort study establishing two groups, one formed by P previously diagnosed to the event of the study or during their check in DL, compared with P without alteration of lipid metabolism. We evaluate the incidence of death according to the type of treatment performed.

Results: 40.4% of P were DL. The average age in the DL was 62.7 ± 13.4 years. 82% were male, 21% diabetics, 25% were active smokers. Average following-up was of 530 days. All baseline characteristics were similar, except the frequency of hypertriglyceridemia which was 15% vs 2.9%, $p = 0.001$. There were no significant differences in the type of revascularization treatment. The P DL showed a higher mortality to non-DL (10.5% vs 3.4%, $p = 0.005$), during hospitalization, it showed bigger levels of mortality (6.5% vs 1.2, $p = 0.038$) and it continued to rise during the following-up (4.3% vs 0.2 $p = 0.05$). The P taking statins presented a lower mortality rate (4.4% vs 27.7%, $p = 0.001$).

Conclusions: Patients with dyslipidemia show higher mortality. Therefore, we must optimize the type of treatment performed to this vulnerable group.

RV-163
IS IT IMPORTANT DIABETES IN A PERCUTANEOUS REPERFUSION PROGRAM?

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Objectives: Our aim was to analyze the prognostic value of patients (P) admitted with a myocardial infarction with ST elevation (STEMI) according to the presence of diabetes (DM) and determined if they show a higher rate of mortality.

Material and method: We prospectively analyzed 231 P with STEMI undergoing primary angioplasty from June 2007 and January 2010 in a Hospital with 24 hours warning of Hemodynamics. We performed a prospective cohort study establishing two groups formed by a DM or with two basal blood glucose > 125 mg/dl or a fasting glucose > 125 and > 199 on admission and another for P without HC metabolism changes.

Results: 49.5% are diagnosed DM, still unknown for 54.4%, with an average age of 65.63 ± 12 years. 81% were male and DM known were 22.5%. All baseline characteristics were similar to those of non-DM except female gender and peripheral arteriopathy, which was higher in DM ($p = 0.019$ and 0.011). There were no significant differences in the type of treatment performed. They had a higher percentage of severe ventricular dysfunction (19% vs 3%, $p = 0.004$).

The DM had a mortality three times higher than non-DM (10.5% VS3, 4%, p = 0.016), both during hospitalization (6.5% vs 1, 2%, p = 0.038), as in the following-up (4.3% vs 0, 2%, p = 0.05).

Conclusions: During STEMI DM known and unknown show a higher level of mortality. This is true, despite having similar characteristics in the treatment performed. Therefore, we must work together to optimize the treatment performed to this vulnerable group of patients.

RV-164
LDL CHOLESTEROL IN PRIMARY AND SECONDARY PREVENTION OF VASCULAR EVENTS

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Objectives: We analyzed the values of LDLc in the population with cerebrovascular events, cardiovascular and metabolic events, according to risk factors and therapeutics. It was studied a sample of 176 patients followed in the Cardiovascular Risk Consulting Unit (age: 67 years, M: 78.9%, W: 21.02%). The goal was to determinate if the cLDL was a reliable predictive parameter on the cardiovascular risk.

Material and method: We used the SPSS V17.0 to analyze 54 variables (events, anthropometric indices, lipid profile, pharmacological treatment and interventional cardiology) and its relation with the values of LDLc. We studied a sample of 176 patients followed in the Cardiovascular Risk Consulting Unit (Age: 67 years, M: 78.9%, W: 21.02%).

Results: Age: 67.0 years; Gender: 78.9 M 21.1 W; CAD without ST Elevation: 23.4%; CAD with ST Elevation: 40.3%; CVA: 7.4%; AHT: 78.9%; DM2: 50.6%; BMI: 28.1; AP: 100.4 cm; Glycemia: 128.3 mg%; HBA1c: 7.4%, 22% < 6.5 mg%; Lipids (TC: 166.8 mg%; LDLc: 93.1 mg%, 56.3% < 100 mg%, 22.2% < 70 mg%; HDLc: 46.0 mg%; TG: 144.6 mg%); Treatment (Anti-platelets: 64.2%; Anti-hypertensors: 64.0%; Anti-dyslipidemics: 85.8%; Oral Anti-diabetics: 36.9%; Insulin: 8.5%; Catheterism: 68.9%; Coronary Surgery: 18.2%; Angioplasty: 38.6%). Average values of LDLc allocated per variable: CAD without ST Elevation: 91.93 mg%; CAD with ST Elevation: 91 mg%; CVA: 86.27 mg%; AHT: 91.78 mg%; DM2: 88.07 mg%; Treatment (Anti-platelets: 95.13 mg%; Anti-hypertensors: 93.73 mg%; Anti-dyslipidemics: 91.05 mg%; Oral Anti-diabetics: 91.93 mg%; Insulin: 119.43 mg%; Catheterism: 90.78 mg%; Coronary Surgery: 95.00 mg%; Angioplasty: 89.67 mg%).

Discussion: In this sample we had a very old population, majority represented by the male gender, where the prevalence of cardiovascular risk factors was very high, giving this population a global high risk for cerebrovascular and cardiovascular events. Another element that called our attention was the elevated consumption of anti-platelets, anti-hipertensors and anti-dyslipidemics drugs among these patients. When we analyze the intervention cardiology, we see that a significant percent was catheterized with consequent coronary surgery or primary angioplasty. It's also interesting observe that patients in primary and secondary prevention had a good metabolic control, better than the general population and close to the guidelines.

Conclusions: A) Secondary prevention: 1. Patients with vascular events had LDLc lower than the general average; 2. Patients treated with anti-dyslipidemics showed a lower LDLc and had less coronary surgery. B) Primary Prevention: 1. Patients with hypertension and diabetes showed a better lipid profile compared to the general population. C) In the Cardiovascular Risk Consulting Unit LDLc is a major parameter in primary and secondary prevention.

RV-165
THE EFFECT OF IRON OVERLOAD AND HFE GENE POLYMORPHISMS ON CARBOHYDRATE METABOLISM IN PORPHYRIA CUTANEA TARDA

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Objectives: Porphyria cutanea tarda (PCT) results from a reduce activity of the uroporphyrinogen decarboxylase (UROD) enzyme, in which genetic and environmental factors are involved. It can be unleashed among others by iron overload, alcohol, estrogens and other conditions. Iron overloading is associated with hemochromatosis (HFE), and mutations in the HFE gene have been associated with the development of metabolic syndrome. The aim of this study was to describe the degree of iron loading and the Cys282Tyr and His69Asp HFE gene mutations with the development of diabetes in PCT patients.

Material and method: We conducted a transversal analysis of a population cohort of 25 patients with PCT from the Internal Medicine Department, Virgen del Rocío Hospital in Spain, recruited since 2009. The diagnosis was made measuring levels of uroporphyrinogen, coproporphyrinogen, and protoporphyrinogen in 24-hour urine samples, fluorometric blood smear, and the urodecarboxylase enzyme activity. Hemochromatosis C282T and H69A gene polymorphisms were identified. Iron overload was established by the detection of iron, transferrin saturation, and ferritin levels in blood stream. Several epidemiological and biological variables were analyzed, as well as some cardiovascular risk factors. Patients with or without metabolic syndrome were classified according to the European Diabetes Society guidelines. Data were analyzed using the SPSS Statistics Software 15.0.

Results: Patients presented a mean age of 51.06 ± 13.2 years old. Proportion men/women was 76.5%/23.5%. 64.7% of patients had a history of alcohol consumption, the rest being related to hepatitis C virus (HCV). HFE gene polymorphisms were present in 29.4%. H63D mutation was present in 20%, C282T in 6%, and double heterozygosis in 5%. Iron overload measured by transferrin saturation index (TSI) and ferritin levels, had a mean of 32.29 ± 15.87 and 410.82 ± 295.59 respectively. Results for metabolic syndrome risk factors were: mean glycemic levels 117.81 ± 38.75 mg/dl, Hb1Ac 6.7 ± 1.25%, total cholesterol 196.53 ± 33.07 mg/dl, triglycerides 134.06 ± 74.90 mg/dl, and HDL 50.21 ± 17.03 mg/dl. 17.6% of patients had arterial hypertension, treated by at least one antihypertensive drug, 41.17% had diabetes, and 7% prediabetes. Patients with more iron overload and longer treatments with hydroxychloroquine had Hb1Ac alterations and were older; the rest of cardiovascular risk factors did not maintain an association, though there was an inclination to hypertriglyceridemia. Patients with HFE mutations had more disease activity, higher levels of uroporphyrinogen, alanine and aspartate transaminases, and more tendencies to iron overload. Metabolic syndrome and iron overload did not show differences in subgroups, although we believe that the small number of patients in our study affected these results.

Conclusions: In our cohort of PCT patients, we found a tendency -which can be translated as an increase in disease activity- towards iron overload and the presence of HFE mutations. There seems to be an association between the increase in TSI levels and carbohydrate metabolism deterioration.

RV-166
TRENDELENBURG POSITIONING DURING ACUTE STROKE. HEMODYNAMIC AND CLINICAL OUTCOMES

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Objectives: Cerebral blood flow (CBF) is reduced to the infarcted area during an acute stroke. Although the classical notion is that CBF is largely controlled by arterial Pco2 and blood pressure, CBF may also be influenced by relative head position and the distribution of cardiac output. Best positioning for acute stroke patients is unknown and Trendelenburg positioning has never been used. The purpose of the present study was to investigate the potential effects of Trendelenburg positioning on systemic and cerebral hemodynamics and clinical outcomes.

Material and method: Prospective interventional cohort study set in an internal medicine department of a tertiary care hospital. 10 consecutive patients with acute stroke were immediately Brain scanned, and treated according to AHA guidelines. Hypertension was not treated except if it exceeded 220/120. All patients were placed in the Trendelelenburg position for at least 1 hour. Half of them were maintained in this position for 24 hours. Primary outcome measures were systemic blood pressures, extracranial and intracranial cerebral artery blood velocity and neurological deficits. Baseline hemodynamic measurements were performed in the horizontal and the Trendelenburg position (30 deg head-down tilt), including: blood pressure in the upper and lower limbs, respiratory rare, heart rate, O_2 saturation, end tidal CO_2, and extracranial and transcranial Doppler ultrasonography. ECD and TCD were performed immediately after admission. During admission and at a median follow-up of 2 years, new vascular events were recorded.

Results: Trendelenburg positioning did not result in major adverse events. Transitory nausea and vomiting occurred after a few hours in 20% of the patients. Most patients tolerated 24h Trendelenburg positioning without relevant discomfort. Placing the stroke patients in the Trendelenburg position resulted in a non significant increase in Systolic blood pressure in the upper arms and a decrease in systolic and diastolic pressure in the lower limbs. HR did not change during the study period in both positions. Respiratory rate, Oxygen saturation and non invasive End Tidal CO_2 did not change during the study period in both positions. A positive clinical response to the Trendelenburg position during the first hour was observed in 80% of the patients. In one patient TIBI flow improvement secondary to Trendelenburg positioning was associated with spectacular neurological recovery.

Discussion: Mechanistically there was a trend towards systolic blood pressure increase in the upper part of the body with no significant change in intracerebral arterial velocity that may be beneficial in terms of cerebral perfusion pressure. As there were no relevant changes in respiratory parameters controlling cerebral blood flow, its variation if any would be largely due to the increase in upper body blood pressure. Trendelenburg positioning may in itself be clinically beneficial or synergistic with reperfusion therapies.

Conclusions: This investigation produced two novel findings concerning Trendelenburg positioning during acute stroke: First, it is a safe manoeuvre to be applied during an acute attack, and it is well-tolerated. Second, there was a clear trend towards clinical improvement more evident in aphasia recovery, but also in the motor domain.

RV-167
DESCRIPTIVE STUDY OF THE PHARMACOLOGICAL MANAGEMENT FOR RATE CONTROL IN PATIENTS WITH ATRIAL FIBRILLATION (AF) ADMITTED TO AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To describe the different treatments of patients with AF, with respect to rate control and associated risk factors.

Material and method: We reviewed the discharge summaries of patients admitted to an Internal Medicine Department between the period from October till December 2010 inclusive.

Results: We reviewed 863 discharge summaries and found 179 patients with AF (20.7%). The mean age was 81.6 years and 53.1% were women. Heart rate control was achieved with digoxin (54.19%), beta-blockers (35.2%), non dihydropyridine calcium channel antagonists (16.76%) and amiodarone (3.9%).

Discussion: Atrial fibrillation is the most common cardiac arrhythmia, its prevalence increases with age, as in our study we found it present in more than 20% of patients whom had a mean age of 80 years or older. Heart rate control is important in these patients, in our study the most commonly used drug was digoxin followed by beta-blockers, probably due to the high co-morbidity of our patients.

Conclusions: 1. The most commonly used rate control drug used was digoxin, in more than 50% of patients. 2. The elderly age of patients conditions treatment management.

RV-168
SEASONAL RHYTHM, WEEKLY AND HOURLY VARIATIONS IN ADMISSIONS FOR ACUTE CORONARY EPISODES IN AN EMERGENCY DEPARTMENT

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Objectives: To determine the existence of seasonal rhythm, weekly and hourly variations, and to analyze the influence of age on admissions for acute coronary heart disease (ACHD) episodes at our hospital emergency department (ED).

Material and method: Based on the computerized medical records of all assisted processes at the ED of our hospital for any cause during four consecutive years (from January 2008 to December 2011), and in preserving patients anonymity, we collected information on the age, sex, first-listed diagnosis (which was subsequently coded according to ICD-9 MC, using an application software developed by our Clinical Documentation Dept.), date and entry time of all patients attended. All these variables were imported into a database and, using the computer program SPSS® 15.0, we conducted a descriptive study and a statistical data analysis, with the objectives set out before, for patients who presented an episode of ACHD (ICD-9 MC codes 410 to 411 and 413) as first-listed diagnosis at the hospital ED.

Results: Total assisted processes from all causes in the Emergency Department of our Hospital during the studied period were 401678. The mean age (± standard deviation) of the patients was 43.7 ± 21.4) years and 50.3% were women. A total of 418 patients were mainly assisted because of ACHD. Of these, 311 (74.4%) were men with a mean age of 62.6 ± 14.5 years, and 107

(48.3%) were women, with a mean age of 73.6 ± 12.2 years (p < 0.0001). More than half (53.1%) patients assisted by ACHD were 65 or older. The period of the year with the highest incidence of ACHD was from November to January (December was the month of highest incidence [11%]), while there was a lower incidence (21%) during the period from August to October. Sundays and Mondays were the days of further ACHD assistance (17.2% and 15.1% respectively), and Fridays had the fewest (12.2%). Almost half (49.5%) of ACHD patients went to the ED between 9 am and 6 pm, peaking at 4 pm (7.9%). The lowest attendance was between 4 am and 7 am with 5.3% of ACHD cases.

Conclusions: Important changes in hospital emergency admissions rates due to ACHD are detected among the different months of the year, days of the week and times of the day. The highest incidence is found in winter and greater attendance is found during the late morning and early afternoon, as well as on Sundays. We can confirm that women have delayed the average age of presentation ACHD episodes over a decade.

RV-170
METHODS OF ASSESSING KIDNEY FUNCTION IN A HOSPITAL CONSULTATION OF HYPERTENSION AND CARDIOVASCULAR RISK: IMPLICATIONS IN CHRONIC KIDNEY DISEASE CLASSIFICATION AND CARDIOVASCULAR RISK STRATIFICATION

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Objectives: Cardiovascular risk of a patient should be evaluated in a global way, considering several risk factors, including chronic kidney disease. There are different equations to estimate a patient's renal function. It is not known if, for patients with increased global cardiovascular risk, the choice of different equations has any impact in estimating their renal function and therefore in the stratification of their cardiovascular risk. The objectives of this study are to assess the level of agreement between the Cockcroft-Gault, Modified Diet Renal Disease and Cystatin C equations, with respect to the classification of chronic kidney disease and cardiovascular risk stratification in an increased cardiovascular risk population followed in hospital consultation.

Material and method: Anthropometric, clinical and analytical data was collected from 228 patients with global increased cardiovascular risk. Cohen's k value analysis was used to evaluate the agreement level between equations respecting to CKD classification and CVR stratification.

Results: We verify no agreement between methods in 22.8% (n = 52) of patients in respect to chronic kidney disease stages' classification. Among these 52 patients, the method used also changed global cardiovascular risk stratification in 13.5% (n = 7) of the patients.

Discussion: There is a considerable proportion of individuals with increased cardiovascular risk classified in different states of chronic kidney disease, according to the method of renal evaluation used. In some patients the equation used to estimate glomerular function also has an impact on cardiovascular risk stratification. The lack of agreement between the methods used in this population warrants a study to compare them with a gold-standard method.

Conclusions: The equation used to estimate the glomerular function has implications in renal evaluation and cardiovascular risk stratification of patients with increased cardiovascular risk.

RV-171
DIFFERENCES BETWEEN OFFICE AND AMBULATORY BLOOD PRESSURE IN NORMOTENSIVE POPULATION ACCORDING TO GENDER AND AGE

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Objectives: Analyze differences between office blood pressure (OBP) and ambulatory blood pressure values (ABPM) in a cohort of normotensive subjects according gender and age.

Material and method: We included all subjects without antihypertensive treatment analyzed in previous ESTHEN studies (ESTHEN 1, ESTHEN 2 and ESTHEN 3) with OBp < 140/90 mmHg and mean 24 h ambulatory blood pressure < 130/80 mmHg.

Results: We analyze 756 subjects, with a mean age 43.7 ± 11.5 years (57.5% women). The mean values of blood pressure were upper in men than in women, with two methods, office blood pressure (125.73 ± 9.51/76.87 ± 6.89 vs 119.94 ± 11.27/74.08 ± 8.25 mmHg; p < 0.001) and ambulatory blood pressure (mean values of 24h 118.26 ± 7.42/71.83 ± 6.4 vs 113.43 ± 8.5 mmHg, p < 0.001; Diurnal 123.29 ± 7.93/75.88 ± 7.41 mmHg vs 118.28 ± 9.73/74.11 ± 7.4 mmHg, p < 0.001; Nocturnal 109.57 ± 8.86/65.13 ± 7.03 vs 104.87 ± 9.34/62.78 ± 6.85 mmHg; p < 0.001). Moreover, these differences between men and women were scarce in the elderly, even reversed in the seventh decade of life (table 1).

Conclusions: The differences in blood pressure values between normotensives men and women were independent of methodology measurement, even more pronounced with office blood pressure than ambulatory blood pressure values. These differences were more pronounced in the first decade of life, and minimize in the elderly, nearly of sixth decade of life. Women elderly than 70 years old presented blood pressure values upper tan men.

Table 1 (RV-171). Differences in blood pressure values between men and women (mmHg)

Decade (years)	SBP Office	DBP Office	24h SBP	24h DBP	SBP diurnal	DBP diurnal	SBP Nocturnal/DBP Nocturnal
20	11.6	6.3	9.4	2.9	11.3	3.8	7.2/2.7
30	9.2	4.8	7.5	2.5	8.6	3	6.1/2.6
40	6.7	3.3	5.5	2.1	5.9	2.1	5.1/2.4
50	4.2	1.9	3.6	1.7	3.2	1.2	4.1/2.3
60	1.8	0.4	1.6	1.3	0.5	0.3	3/2.2
70	-0.7	-1.1	-0.3	0.9	-2.2	-0.5	2/2

RV-172
GLOMERULAR FILTRATION RATE AND AMBULATORY PRESCRIPTION FOR METFORMIN IN A TERTIARY IN AN INTERNAL MEDICINE SERVICE

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Objectives: Type 2 diabetes is one the most frequent pathology of internal medicine inpatients. Following ADA recommendations, metformin is the initial drug in the treatment of type 2 diabetes. Some of the diabetic patients have renal impairment related to this pathology, and treatments that they received should be prescribed depending on it, such as metformin, that is not indicated if renal impairment is present The aim of our study is to describe the characteristics of inpatient that receive treatment with metformin when they are dismissed of an internal medicine ward in a tertiary hospital. ¿Do we think about renal impairment when we prescribed metformin?

Material and method: Dismissed reports of inpatients were reviewed from 2008 to 2010. We collect data of: age, sex, ethnic group, underlying diseases (diabetes, hypertension, heart failure, ischemic cardiopathy), and some laboratory results. Patients were classified depending on their renal impairment; glomerular filtration rate was measured with Modification of Diet in Renal Disease Study Group (MDRD) equation. Data were described as mean and standard deviation for continue variables. Quality variables were described as frequencies.

Results: A total of 255 patients were included, 135 male (52.9%) and 120 female (47.1%). Mean age was 67.55 ± 18.67 years. All patients were not black. Hypertension was described in 57.6% of the patients, with systolic arterial pressure mean of 123.62 ± 23.37 mmHg and diastolic arterial pressure mean of 70.84 ± 12.98 mmHg. We found history of ischemic heart disease in 16.1% of our patients, atrial fibrillation was found in 48 patients (18.8%) and heart failure in 19%. Chronic renal failure in 8.6% (defined as a glomerular filtration rate < 30 ml/min). Obesity was described in 6.7%. Smoking habit was found in 40% of the patients. The prevalence of Diabetes Mellitus was 24.3% and metformin was prescribed in 23 patients at discharge (9%). Creatinine mean value was 1.13 mg/dl ± 0.58. To improve the analysis of the data we have separated our patients according to their glomerular filtration rate (MDRD) into three groups: < 30 ml/min, 30-50 ml/min and > 50 ml/min. Metformin prescription was found in 2 patients (0.8%) in the group of MDRD < 30 ml/min, 4 patients (1.6%) between 30-50 ml/min and 17 patients (6-7%) in the group with MDRD up to 50 ml/min.

Discussion: Metformin is considered one of the best drugs for initial treatment in type 2 diabetes in the absence of contraindications, becoming the standard of care. The available evidence supports the safety of its use in patients with normal renal function or moderate renal failure. Type 2 diabetes and its comorbidities make patients receive a lot of medications. In many of this medications doses adjustments are needed depending on glomerular filtration rate. The frequency of inappropriate prescription of metformin remains a problem (according to some series between 14-27%) mainly due to neglect of the adequate assessment of tissue perfusion and renal function of the patients. In this retrospective observational study we have found that prescription of metformin is more frequent in the group of patients with glomerular filtration rate up to 50 ml/min. However we have seen inappropriate prescription in 2 patients with glomerular filtration rate < 30 ml/min.

Conclusions: Cardiovascular risk factors were not very frequently described in the study population. Adequate prescription was more frequently observed in the analyzed patients, although 2 of the patients received inappropriate treatment. MDRD should be measured in all patients were a new drug, such as metformin, is going to be prescript.

RV-173
INFLUENCE OF SEX AND AGE ON HBA1C LEVELS IN CAMPO DE GIBRALTAR AREA

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Objectives: Some reports have stated that, in non-diabetic people, HbA1c levels increase with age, independently of their plasma glucose concentration. Aim: to determine if HbA1c levels depend on age or sex.

Material and method: We have studied fasting plasma glucose (FPG) levels and HbA1c paired determinations (D) in our Healthcare Area. This area comprises six healthcare centers (HCC), a local hospital (LH) and a hemodialysis unit (HU) (Pop 104000). All measurements were done as commonly with a HA-8160 Menarini apparatus (HPLC ARKRAY Inc., Kyoto, Japan). We have categorized age as Age groups (A_G). HbA1c levels were distributed in two groups depending if they were performed as intention-to-diagnose (ItDx) (single determinations below 7%), or as intention-to-check (ItCh) (several measurements and all above 6%).

Results: During 2011, 10,942 determinations were done in 7,948 persons. Median (Me) HbA1c 6.4% (IQR 5.7% to 7.3%). Determinations were not equally distributed along time, they were more frequent during April, May and June. 8,297 (79%) determinations came from HCC, 2,037 from RH (19.5%) and 158 from HU (1.5%). In the ItDx group there is a positive correlation between age and HbA1c, exclusively in women. By the other side, in the ItCh group HbA1c levels decrease with age, predominantly in men. All of them well correlated with FPG. According to age: Group 18 to 30 years (336 D, 3.3%) Me HbA1c 5.3% (IQR 5.1 to 5.6%), Group 31-45 (1,025, 10%) Me HbA1c 5.6% (IQR 5.3 to 6.8%), Group 46-60 (2,472, 24%) Me HbA1c 6.3% (IQR 5.7 to 7.4%), Group 61-75 (4,206, 41%) Me HbA1c 6.5% (IQR 5.9 to 7.5%) and Group 76+ (2,217, 21.7%) Me HbA1c 6.5% (IQR 5.9 a 7.3%) If Kruskal Wallis test is applied to the age group variable, a statistical significance is observed between young and old people, both for males and females. Nevertheless, this variation is different between intention-to-diagnose and intention-to-check groups, increasing or decreasing HbA1c levels respectively.

Conclusions: The number of determinations from males was inferior to those from females, although the multiplicity per person was similar. Additionally, males showed both fasting plasma glucose and HbA1c with poor control. The number of determination in older women was especially high, although they are the best controlled. Intention-to-diagnose determinations are clearly influenced by age, particularly in women. Intention-to-check determinations revealed a poor metabolic control in younger patients.

Table (RV-173)

	AGE	HbA1c	FPG	N
Woman	66	6.3	114	5,736
Men	64	6.4	121	4,595
It_Dx	64	5.8	104	5,107
W_It_Ch	69	6.9	101	3,882

RV-174
HYPERTRIGLICERIDEMIA PREVALENCE IN BARCELONA. RELATIONSHIP WITH CARDIOVASCULAR RISK FACTORS

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Objectives: Determine prevalence of hypertrigliceridemia in our population Asses its relationship with other cardiovascular risk factors.

Material and method: Review of clinical records of patients who come at their will for health checkup at our hospital. Data recorded and reviewed: clinical records, anthropometric data, physical exam, blood samples, elctrocardiogram, chest X-ray.

Results: 2,927 patients were reviewed, 1,871 (64%) men and 1,056 (36%) women. Ages between 20 and 85. Mean triglyceride: 111.6 mg/dL, SD 103.9, rank 20-3,100 mg/dL (men 128.2 SD 122.1; women 95.3 SD 51.2). Hypertigliceridemia following ATP-II criteria (value over 200 mg/dL) was present in 241 (8.2% patients), 205 (85%) men and 36 (15%) women. Very high triglycerides, over 1,000 mg/dL, were present in 4 males (0.1% of total population). The 241 patients with hypertrigliceridemia were matched by sex and age with 241 randomly selected non-hypertrigliceridemic patients from the database, and compared for statistical purposes. Mean triglycerides in both groups were 316.5 mg/dL (SD 258.9) compared to 102.9 mg/dL (SD 38.7). The hypertrigliceridemia group showed higher levels of alcohol intake, body-mass index, high waist perimeter, arterial hypertension, fasting glucose, incidence of type 2 diabetes mellitus. We also found increased number of patients with mild to moderate renal failure calculated by the MDRD index. There were no differences in cholesterol levels, serum creatinine levels, transaminases and alkaline phosphatase. With the reviewed data, presence of metabolic syndrome (following ATP-III criteria), presence of hepatic steatosis (fatty liver index) and presence of hepatic fibrosis index (BATT index) were assessed in the two groups, showing a higher incidence of both metabolic syndrome (56% versus 9.1%), presence of hepatic steatosis (79% versus 27%) and presence of hepatic fibrosis (41.5% versus 6.7%).

Discussion: In comparison with other population-based studies in our setting, our results show triglycerides level slightly lower, but the same level of hypertrigliceridemia (over 200 mg/dL) as found in SEA registry (Spanish Society of Arteriosclerosis) or Ibermutua registry (population of workers who underwent laboral checkup). Among our women mean values are slightly higher, perhaps due to higher age rank. With our records is very difficult to assess aethiology of hypertrigliceridemia. 90% of the patients showed also total cholesterol over 200 mg/dL, so mixed dislypidemia can be suspected. As regards to secondary causes, only 11% of the patients (all male) admit significant alcohol intake; obesity (BMI over 30 Kg/m^2) is present in 35%; type 2 diabetes mellitus in 18.7%; and metabolic syndrome in 56% of the population (72% among women). There is significant association with hyperuricemia, hypertension, metabolic syndrome and the probability of hepatic steatosis and fibrosis (using fatty liver index and BATT score respectively). The group of hypertrigliceridemia showed also slightly higher rate of renal impairment calculated by the MDRD formula.

Conclusions: Prevalence of hypertrigliceridemia in our setting is similar to previous descriptions in other Spanish populations. Hypertrigliceridemia is strongly associated to classical cardiovascular risk factors. There is also marked association with metabolic syndrome and risk for hepatic fibrosis and steatosis. We have found also higher rate of mild renal failure (calculated by MDRD).

RV-175
WEIGHT REDUCTION AFTER TREATMENT WITH TOPIRAMATE, IN MIDDLE-AGED PATIENTS FROM A CARDIOVASCULAR RISK UNIT, WHO HAD BEEN RESISTANT TO STANDARD LIFESTYLE CHANGES

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Objectives: To evaluate the effectiveness as a weight reductor of a low dose of Topiramate, in a sample of middle-aged patients from a Cardiovascular Risk Unit, who had been resistant to a lifestyle change treatment of 6 months.

Material and method: SAMPLE: n = 42 patients, 45 ± 12.3 years old, 27 (64%) women, 6 (14%) smokers, 18 (43%) hypertensive, 17 (41%) had chronic hyperglycemia (type 1 diabetes excluded). Basal weight was 89.0 ± 15.7 Kg and BMI 32.6 ± 6.1 of patients who were all non-responders to classic life-style changes alone, were treated with Topiramate in addition to those same life-style change measures, during 6.5 ± 2.0 months. Patients were included for the study after informed consent was signed. Overweight was defined as BMI > 28 kg/m^2). Subjects were considered non-responders to life-style changes if they had maintained a stable weight over the past 6 months while being under treatment (within a variation range of < 3%). Subjects with a history of myocardial infarction (within the last 6 months), anemia, plasma creatinine levels > 1.5 mg/dL or concomitant chronic diseases (e.g. cirrhosis, chronic obstructive pulmonary disease, heart failure) were excluded. Life-style change measures included recommendations of regular exercise and dietary advice (coherent to the Steno-2 Study). Treatment: from a starting dose of 25 mg/day, dosage was titrated upward by weekly increases of 25 mg/day over a 7-week period (according to Rosenstock [Diabetes Care. 2007;30(6):1480-6) and continued afterwards up to a target dose of 150-200 mg/day during the maintenance phase. Patients were considered as "responders" if their weight reduction was ≥ 5% of their initial weight and "hyper-responders" if it was ≥ 10% of initial weight. Statistical analysis: Continuous variables were described as mean ± SD. Wilcoxon signed-rank test was used to assess median differences.

Results: 1- Weight reduction was of 5.48 ± 4.12 Kg ($p < 0.001$), and that of BMI of 2.0 ± 1.46 ($p < 0.001$). Average reduction in bioimpedance values was of 2.7 ± 3.3 Kg of body fat (2.3 ± 2.5% of initial value, ($p = 0.002$) 2- 9 0ut of 10 patients lost more than 5% of their initial body weight, and almost 2 out of 10 lost more than 10% of it. 3-Tolerance to topiramate: 6 out of 10 patients suffered adverse events (AE), being paresthesia the most frequent one (36% of the whole sample). Only 5 of the 42 patients abandoned the treatment. 4 of them due to moderate AEs and only 1 due to inefficacy of treatment after a period of 6 months.

Discussion: While awaiting the release of new drugs, topiramate has been proposed as a novel anti-obesity drug. Previously, among obese patients with binge-eating disorder, topiramate treatment was associated with significantly greater reductions in BMI, body weight, and improvement in obsessive-compulsive scores. The most commonly reported side effects of topiramate are central nervous system negative effects which generally occur at high doses, being paresthesia the most frequent one. Other rare adverse reactions include cough, leukopenia and thrombocytopenia, osteoporosis, and ocular disturbances (acute myopia, secondary angle-closure glaucoma, maculopathy). Up to date, the use of topiramate to treat obesity is controversial. Nevertheless, our study yields a very favorable result regarding both its efficacy in reducing weight as well as its tolerance.

Conclusions: 1. Tolerance to topiramate is fairly good, being the adverse events occurred mild to moderate. 2. Percentage of patients with a weight reduction ≥ 5% of their initial weight was

considerable high: 9 out of 10. 3. In subjects at cardiovascular risk, a context in which obesity is much more than an aesthetic issue: Is there anything to lose where all other measures have failed?

RV-176
SCORE UNDERSTIMATES CARDIOVASCULAR RISK OF HIV INFECTED PATIENTS

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Objectives: New European Guidelines of Dislipemia Management of European Society of Cardiology (ESC) and European Artheriosclerosis Society (EAS) consider HIV as patients at high risk of developing cardiovascular events and deaths. Probably previous cardiovascular risk charts were underestimating cardiovascular risk in those patients. The objective of our study was to evaluate cardiovascular events and deaths in the series of HIV infected patients followed in our hospital. SCORE of these patients was assessed 4 years ago.

Material and method: Observational, cross-sectional study, including a cohort of HIV+ve infected patients from an internist's office and a cohort of controls non-HIV-ve infected from a primary care setting during 2008. Sociodemographic and clinical variables (cardiovascular risk factors, lipid profile and treatment) were collected from an electronic medical record. Cardiovascular risk was calculated using the SCORE cardiovascular risk chart. Variation on lipid profile after 4 years and incidence of cardiovascular events (stroke, acute miocardic infarction or angina or peripheral arterial disease), cardiovascular death or death related to any cause were recorded. Data were analyzed using SPSS version 20.0 for MAC.

Results: 154 HIV+ve and 155 HIV-ve patients were included. Mean age was 44.8 ± 9.5 years vs 55.2 ± 14.3 years and 69.5% vs 49% males respectively ($p < 0.01$). Mean time since HIV diagnosis on HIV+ve infected was 11 ± 6.2 years. Mean body mass index (BMI) and systolic blood pressure (SBP) were lower in HIV+ve (25.1 ± 6.7 kg/m^2 vs 28.7 ± 5.1 kg/m^2, ($p < 0.01$) and 119.6 ± 19.4 vs 124.7 ± 14.7 mmHg, ($p = 0.044$), respectively). A lower proportion of hypertense, diabetic and obese patients were observed in HIV+ve (26.5% vs 6.5%, 20.6% vs 3.9% and 36.8% vs 12.3%) but a larger proportion of smokers (68.8% vs 29.7%) was observed ($p < 0.01$ in all cases). Mean cholesterol and low-density lipoprotein cholesterol (LDLc) were lower in HIV+ve (191.2 ± 41.4 vs 218.5 ± 44.6 mg/dl and 109.5 ± 33.9 vs 134.6 ± 37.7 mg/dl, $p < 0.01$ respectively) but with a lower mean high-density lipoprotein cholesterol (HDLc) and higher triglycerides (TG) (50.3 ± 19 mg/dl vs 55.2 ± 14.9 mg/dl, $p = 0.013$ and 156.7 ± 85.7 vs 135.8 ± 66.2 mg/dl, $p = 0.017$, respectively). There was no significant difference in mean cardiovascular risk SCORE in both cohorts (3.5 ± 3.6% vs 4.4 ± 3.8%, $p = 0.091$). With this SCOREs 5´2 ± 5.3 and 6´7 ± 5.8 cardiovascular events or deaths should be expected in HIV+ve and non HIV patients respectively at 10 years. Four years later total Cholesterol, LDLc, HDLc, TG (190.56 ± 43.4, 106.53 ± 37.1, 50.22 ± 13.9, 175 ± 114.4) in HIV+ve patients did no variate compared with those obtained years before ($p < 0.05$ for of them). The same occurred in nonHIV patients (205.57 ± 43.56, 123.70 ± 40.22, 56.05 ± 13.09, 134.06 ± 62.09, $p < 0.05$ for all of them). 5 events and 1 death were seen at 4 years following in HIV+ve, and 3 in non HIV patients.

Discussion: The incidence of events in HIV+ve patients is similar to the expected according to his SCORE at 10 years. We could suppose that once the 10 years following is reached, this incidence will be higher. In the other side, in nonHIV patients at four years just 3 events occurred, far from the 6´8 events expected. There were no significant differences between lipid profiles in none of the cohorts.

Conclusions: 1. Lipid profile with low HDLc and high TG is persistent in HIV patients at 4 years of following. 2. Undestimation of cardiovascular risk in HIV patients by SCORE charts could be present as soon as at 4 years. 3. This could reaffirm the stratification of HIV patients as high risk patients in new guidelines.

RV-177
ARE THE DPP4 INHIBITORS IN DIABETES MELLITUS REALLY EFFECTIVE?

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Objectives: This study aims to assess the number of patients, treated with DPP4 inhibitors in association with other antidiabetic drugs and insulin, who are well-controlled according to the objectives of the current American Diabetes Association to maintain a glycosylated hemoglobin (HbA1c) below the 7%. In addition, we have also tried to determine which are the most commonly used DPP4 inhibitors (sitagliptin, vildagliptin o saxagliptin) for the treatment of diabetes present today in the Spanish market. We also seek to evaluate if a higher consumption is related to the glycosylated hemoglobin decrease or with the onset of side effects.

Material and method: A 91-patient (between 45-80 years) transversal and observational study has been carried out at the Risk Vascular Unit of Salamanca Hospital for the last two years. The subsequent protocol has been followed during the visits: medical and personal history, current treatment and drugs side effects. Physical examination including blood pressure and HbA1c (%) analytical. Patients used a treatment with DPP4 inhibitor a year prior to their inclusion in the study. Finally, a SPSS program has been used to analyze data.

Results: 67.03% of the patients were treated with sitagliptin, 26.37% with vildagliptin and 6.59% with saxagliptin. According to treatment, the following average number of glycosylated hemoglobin was showed in patients: DPP4 Inhibitor with metformin showed an average of HbA1c 7.43%, DPP4 Inhibitor with metformin and insulin showed an average of HbA1c 8.92%, DPP4 Inhibitor with sulfonylurea showed an average of HbA1c 7.75%. The most common pharmacological association: metformin + sitagliptin 42.8%, metformin + vildagliptin 13.8%, metformin + saxagliptin 4.3%, sulfonylurea + sitagliptin 7.6%, sulfonylurea + vildagliptin 2.19%, sulfonylurea + saxagliptin 1.09%, metformin + insulin + sitagliptin 20.8%, metformin + insulin + vildagliptin 7.6%. Patients with HbA1c < 7% according to pharmacological association used: 57.14% with sulfonylurea + sitagliptin, 48.7% metformin + sitagliptin, 66.6% metformin + vildagliptin, 21.05% metformin + sitagliptin + insulin. The most frequent side effects; 9.89% hypoglucemya, 5.49% headache, 7.69% urine infection and 3.29% stomach sickness.

Discussion: In relations to results, we consider that the sitagliptin is the most commonly used drug in association with metformin, probably because it was the first to emerge on the market. The best glycosylated hemoglobin levels were achieved combining insulin with metformin and the worst results originated from DPP4 inhibitors with insulin. These results could originate in the fact that, at the beginning of the treatment, a DPP4 inhibitor was added to patients treated with insulin resulting in a poorer metabolic control. The association of metformin with vidagliptin obtained the best results according to the goals of de ADA.We believe that the drug selected is not related to side effects, since they are very scarce.

Conclusions: This study concludes that, although in the literature, the decrease in HbA1c is the same for DPP4 inhibitors (between 0.5-1%), vildagliptin in association with metformin is recommended

since it reduces glycosylated hemoglobin more effectively. Although it would require a study with more advanced statistical data, we would like to state that DPP4 inhibitors are high-quality drugs for the initial stages of diabetes mellitus.

RV-178
COPD PREVALENCE IN HEALTHY SPANISH POPULATION AND ITS RELATIONSHIP WITH CARDIOVASCULAR RISK FACTORS

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Objectives: Asses COPD prevalence among asymptomatic people attending at their own will a health check-up program in a private hospital. Analyze relationship between COPD and traditional cardiovascular risk factors.

Material and method: Review of clinical records of patients attending the Preventive Medicine clinic of our hospital, of age between 40 and 80. Demographic data were collected, along with spyrometric values to classify patients as COPD/non-COPD according to Gold criteria (FEV1/FVC < 70%). In the COPD group, age, BMI, smoker status, waist perimeter, blood pressure, glucose, lipid levels, creatinin and MDRD, AST/ALT/GGT, uric acid were also collected.

Results: Patients attending the Preventive Medicine clinic from 1998 to 2004. 2,166 had age 40-80. 35 (1.61%) presented FEV1/FVC < 70% and were classified as "COPD". 28 (80%) men and 7 (20%) women. Among smokers, rate of COPD was 2.4%. Mean age was 62 years (SD 10). Mean MBI: 27.29 Kg/m^2 (SD 4.6). The rate of smokers was 25% and ex-smokers 19%. Obesity (BMI > 30 Kg/m^2) was present in 18% of the men and 57% of women. 63% had hypertension, 5.7% type 2 diabetes mellitus (3.6% men, 14.3% women). Hypercolesterolemia was present in 71% of men and 100% of women Renal impairment (MDRD < 60 ml/min) was found in 16% of the patients without sex differences. Metabolic syndrome, defined by ATP-III criteria, was present in 4 patients (11%), 3 men (10%) and 1 woman (14%). Calcification of aortic arch, assessed by chest X-ray, was present in 3 patients (8%). After statistical analysis, association was found between COPD and the presence of hypertension and hypercolesterolemia in both sexes. An association was found also between COPD and central obesity only in women.

Discussion: Our results are consistent with other groups that show independent association between COPD and cardiovascular risk factors such as hypertension and hypercolesterolemia. What is highly surprising in our data is the relatively low prevalence of COPD found in our population, only 1.6%, as compared with other Spanish works, as the IBERPOC study of 1997 (prevalence 9.1%) or the EPI-SCAN Survey 2006-2007 (10.2%). Our data are more consistent with other published works, in UK in 2000 and 2008, and in Germany in 2009; the investigators find rates of COPD amongst general population in a rank between 1.36% and 1.5%, and only of 6.9% in German smokers (2.4% in our smokers) Discussion exists between strategies that could over- or under-estimate the real prevalence of COPD, important in terms of excessive medicalisation in the first case, or excess of pulmonary function loss due to delayed diagnosis in the second. The difference lies in the method of selection of the "study population". In the Spanish studies, randomly selected population of one area is contacted and requested to visit the investigators, with a bias depending on willingness to attend. In the UK/German studies, all population attending a specified clinic in specific dates is reviewed. Our design is similar to the second approach.

Conclusions: COPD is associated with hypertension, hypercolesterolemia, and central obesity in women COPD prevalence in our study population is of 1.6%, lower compared to other works in our setting A clear method needs to be defined to accurate assessment of COPD prevalence.

RV-179
DIFFERENCES ON THE DIAGNOSIS AND THERAPEUTIC MANAGEMENT OF PATIENTS WITH ACUTE CORONARY SYNDROME ACCORDING TO THE DEPARTMENT ADMISSION

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Objectives: Explore the patterns of management of patients hospitalized for acute coronary syndrome (ACS) as well as to determine the influence of the department admission over the consequent hospital management and discharge.

Material and method: All patients diagnosed of ACS whose were treated in the Internal Medicine (IM), or Cardiology (CA) department during the first 3 months of 2012 were included in the analysis. We performed a descriptive analysis of demographic, clinical, diagnostic and therapeutic management after reviewing discharge reports.

Results: 100 patients were included in the study. 39% were admitted in CA and 61% in IM departments. The mean admission stay per patient was 9.95 days for IM and 8 for CA. Mean age was 66.6 years old for patients in IM and 64.3 for CA. Gender distribution was 61% males in IM and 72% in CA. Previous pathologies registered are shown in Table 1. We have observed differences in the number of test assessed according to the place of entry, with a greater number of diagnostic and therapeutic tests among CA patients (92.3% percutaneous coronary intervention, PCI) compared to those whose did it in IM (77% PCI), $p < 0.05$. Among the PCI performed, 89.4% were therapeutic in IM and 99.4% in CA. The treatment administered is shown in Table 2.

Discussion: Our study represents the hospital management of ACS, even with the design limitations. Numerous studies have established the efficacy of antithrombotic and beta-blocker therapy and the interventional strategy. There are major differences in the treatment of patients with ACS according to geographical areas, hospitals and services in which are handled. In our study the differences in hospital management depending on the department where they entered, lay in the PCI or not. The application of proven

Table 1 (RV-179)

Previous pathologies	Internal Medicine	Cardiology	p
Previous ischemic heart disease (%)	42.6	23	0.46
Heart failure (%)	24.5	20.5	0.63
Chronic obstructive pulmonary disease (%)	13.1	2.5	0.72
Cognitive impairment (%)	3.2	5.1	0.64
Other (%)	24.5	20.5	0.88

Table 2 (RV-179)

Treatment	Internal Medicine	Cardiology	p
Beta-blockers (%)	96.7	92.3	0.32
Aspirin (%)	97.7	97.4	0.24
Clopidogrel/Prasugrel (%)	81.9	94.8	0.06
Statins (%)	91.8	84.6	0.26

treatments for this disease were very similar in both groups, although IM patients had a diagnostic and therapy less intense.

Conclusions: No differences found in medical treatment of ACS conducted by internists or cardiologists. Differences on more aggressive intervention applied to patients admitted in CA, due to the more conservative strategy of IM when treating patients with major underlying disease.

RV-181
SECONDARY PREVENTION OF CARDIOVASCULAR DISEASE IN DIABETIC PATIENTS WITH ANTICOAGULANT THERAPY

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Objectives: Main target: we want to know if our diabetic patients with anticoagulant therapy and established cardiovascular disease receive or not antiplatelet therapy. Secondary targets: know the profile of this patients and the reason of their anticoagulant treatment.

Material and method: It´s a descriptive and transversal study made with all diabetics patients who come to our health center in Torre del Mar for checking their anticoagulant therapy (acenocumarol). We collect demographic data (gender, age, evolution time of diabetes) if they have cardiovascular diseases (ischemic heart disease or/and, stroke, transient cerebral ischemia, heart failure, intermittent claudication, amputation, creatinine > 1.2 mg/dl or glomerular filtration < 60 ml/mto, microalbuminuria or proteinuria positive, pathological pedal pulse and retinopathy). In addition we look into the reason for anticoagulation, their anticoagulant and antiplatelet treatment and the high risk of bleeding (ulcer and previous gastrointestinal bleeding).

Results: A total of 70 diabetic patients were included: 41 women (58.6%) 29 men (41.4%). Mean age was 76.04 (± 8.5). Evolution time of diabetes was 10.44 (± 5.76). The anticoagulant therapy was deep vein thrombosis in 3 (4.3%), pulmonary embolism in 4 (5.7%), thrombophilia in 1 (1.4%) and atrial fibrilation in 62 (88.6%). 61 of them (87.14%) had at least one of major cardiovascular diseases: myocardial infarction 15 (24.6%), ischemic heart disease 24 (39.3%), stroke 11 (18%), transient cerebral ischemia 4 (6.6%) heart failure 17 (27.9%), intermittent claudication 9 (14.8%), amputation 2 (3.3%), creatinine > 1.2 mg/dl 16 (26.2%), glomerular filtration < 60 ml/mto 19 (31.14%), microalbuminuria positive 26 (42.6), proteinuria positive 19 (31.1%), pathological pedal pulse 9 (14.8%) and retinopathy 13 (21.3%). Only 2 patients (3.2%) had previous gastrointestinal ulcer and 1 (1.6%) gastrointestinal bleeding. The whole of 61 (100%) received treatment with acenocumarol and 6 of them (9.8%) antiplatelet therapy: 4 (6.5%) acetylsalicylic acid in low dosis and 2 (3.2%) triflusal. In these 6 patients 4 had peripheral arteriopathy and 2 myocardial infarction more than one year before. There is no contraindications in the remaining 52 patients (85.2%) for double teraphy.

Discussion: Cardiovascular disease is the leading cause of mortality in patients with diabetes accounting for an estimated 65-80% of death. Antiplatelet teraphy is the gold treatment for prevent major adverse cardiovascular events. However there´s no consensus for the combination of the anticoagulation and antiplatelet therapy, and the recommendations are based on the expert opinions and data derived from large prospective studies are lacking. We think there is too much fear of bleeding.

Conclusions: The primary care physician and the internal medicine have a significant responsibility in cardiovascular prevention of the patients affected by this problem. Each patient must be individualized for his best therapy but now, they probably would be undertreated.

RV-182
PREVALENCE OF PCSK9 GENETIC VARIANT R46L IN A SPANISH POPULATION AT MODERATE-HIGH CARDIOVASCULAR RISK

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Objectives: To determine the prevalence of the PCSK9-R46L allele in Spanish subjects with moderate-high cardiovascular risk without statins treatment and its association with low-LDL levels.

Material and method: N = 248 patients, 57.2 ± 13.2 years, 22% were females, 51% had chronic hyperglycemia, 61% hypertension, 17% coronary disease and 20% were smokers. A lipid profile was carried out including total-cholesterol (t-C), HDL-cholesterol (HDL-C) and triglycerides (TG), measured by Hitachi autoanalyzer. LDL-cholesterol (LDL-C) was calculated in subjects with TG < 400 mg/dl (< 10.3 mmol/L) using the Friedewald equation. LDL-target: < 100 mg/dl (2.58 mmol/dl). Genotyping of R46L (rs11591147) was done by TaqMan®, ABI Prism 7300 (Applied Biosystems). Data were analyzed with SPSS V15.0. Chi-square test to evaluate the Hardy-Weinberg equilibrium.

Results: 1. We have identified 7 heterozygote R46L allele carriers and there were no homozygous. The frequency of the R46L allele was 2.8% in the 248 individuals examined. Genotype distributions were in Hardy-Weinberg equilibrium (p > 0.051). 2. All 7 patients were male. Two patients had coronary artery disease (CAD) and DM2 (one died from myocardial infarction at age of 59 and the other one has 74 years old) and the other 3 had hyperglycemia, 3 had hypertension and 2 were smokers. Five of them had LDLc < 100 mg/dL. Although two of them were under treatment with statins, it was due to their CAD. 3. Among noncarriers R46L allele patients, the prevalence of LDL lower the target and without statins treatment was 8%, while 5 out of 7 carriers (71.43%) were within this target.

Discussion: Proprotein convertase subtilisin/kexin type 9 (PCSK9) modulates plasma levels of low-density lipoprotein cholesterol (LDL-C) by promoting the degradation of low-density lipoprotein receptors (LDLRs), the primary pathway for the removal of low-density lipoprotein (LDL) from the circulation. Loss-of-function mutations in the PCSK9 gene appear to be more common than gain-of-function mutations, which are responsible for hypercholes-

terolemia (linked to familiar hypercholesterolemia with autosomal dominant inheritance). The loss-of-function mutations are associated with reduced plasma levels of LDL-C and protection from CHD. Concerning PCSK9 loss-of-function mutations, there are three main mutations, two described in Afroamericans (Y142X and C679X) and one in Caucasians (R46L). So, R46L in PCSK9 gene is more common among white people (prevalence 3.2%) than among black people (0.6%). The R46L polymorphism in PCSK9 has been associated with reductions in LDL-C of 9% to 15% with a 47% reduction in risk of CAD in carriers versus noncarriers.

Conclusions: 1. In our Spanish population, prevalence of PCSK9 genetic variant R46L was below 3%, similar to that described in Caucasian people in other studies. 2. 5 out of 7 patients were within target-LDL without treatment versus 1 out of 12 in non-carriers. 3. The presence of the allele does not protect itself for the development of coronary heart disease, at least in the presence of diabetes mellitus (at least if diabetes mellitus is associated with it).

RV-183
EFFECT OF PHENOLIC COMPOUNDS OF OLIVE OIL ON POSTPRANDIAL INFLAMMATORY RESPONSE IN PATIENTS WITH METABOLIC SYNDROME

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Objectives: Metabolic syndrome is a constellation of several factors which increase the risk of developing cardiovascular disease and type 2 diabetes mellitus. Atherosclerosis is an important pathogenic substrate for cardiovascular disease in patients with metabolic syndrome and it is known that phenolic compounds of olive oil and its concentration could be important factors in preventing the development of atherosclerosis. To assess the postprandial effect of consumption of olive oils with different phenolic compound content in the state of chronic inflammation characteristic of patients with metabolic syndrome.

Material and method: In a randomized crossover design, 52 patients with metabolic syndrome received two types of olive oil which differ in the content of phenolic compounds (396 ppm, 70 ppm). The oils were administered as separate different breakfast in two different days, separated by 1 week. We analyzed the postprandial inflammatory response by measuring plasma cytokines IL-1B, IL-6, TNF-α and MCP-1 and the measurement of gene expression and the regulatory genes of IkKa, IkKb, NF-kB p65 and IkBa in peripheral blood mononuclear cells by qRT-PCR.

Results: Consumption of high phenolic compounds oil reduced postprandial plasma levels of IL-6 and TNF-a ($p = 0.004$ and $p = 0.023$, respectively) and gene expression of IL-6 ($p = 0.016$) compared to consumption of low phenolic compounds oil. Likewise, the consumption of high phenolic compounds oil reduced gene expression of IkBa ($p = 0.025$). In addition, there was a postprandial increase in the expression of NF-kB p65 ($p = 0.007$), regardless of the oil consumed. No changes in the expression of regulatory genes IkKa and IkKb were found.

Conclusions: Phenolic compounds in virgin olive oil reduces postprandial inflammatory response. This anti-inflammatory effect would explain the preventive effect of consumption of virgin olive oil against cardiovascular risk.

RV-185
THE RELATIONSHIP BETWEEN NEWLY DIAGNOSED HYPERTENSIVE WOMEN AND MICROALBUMINURIA, LEFT VENTRICULAR HYPERTROPHY, RETINOPATHY, SEX HORMONES STATUS

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Objectives: An increased incidence of hypertension (HT) in postmenopausal female population has been shown in the previous studies and this has been ascribed to an association with altered status of estrogen (E2) and the other female sex hormones. HT is associated with certain target organ damage (TOD) and related clinical conditions. The purpose of this study was to determine the relationship between microalbuminuria, left ventricular hypertrophy, retinopathy and their female sex hormones status in newly diagnosed hypertensive women.

Material and method: Sixty-six hypertensive women (39 postmenopausal/27 premenopausal) were included into the study. The patients were divided into the two groups according to their menopausal status. Left ventricular hypertrophy (LVH), hypertensive retinopathy and microalbuminuria along with the tests recommended in the hypertension guidelines were investigated in all of the patients. Sex hormones follicle stimulating hormone- FSH, luteinizing hormone -LH, progesterone-P, E2) of the patients were also measured.

Results: No statistically significant difference between the two groups in regard of TOD, except microalbuminuria. The rates of microalbuminuria in premenopausal group patients were higher than those of the postmenopausal group patients ($p = 0.038$). In the premenopausal group, a statistically significant negative correlation with serum LH levels and left ventricular posterior wall thicknesses (PWT) was detected ($p = 0.003$). It was observed that the serum levels of progesterone were higher in the patients without hypertensive retinopathy when compared to women with hypertensive retinopathy ($p = 0.038$) within the in the postmenopausal group. In the correlation analysis, there were statistically significant negative relationship between the septal wall thicknesses on echocardiography and the serum follicular stimulating hormone levels ($p = 0.028$) in postmenopausal hypertensive women. There was also a negative correlation between serum LH levels and microalbuminuria rates ($p = 0.032$) in postmenopausal hypertensives.

Conclusions: Conclusively, this study suggests that target organ damages caused by hypertension, they are very important health problems, seem to be related with female sex hormones.

RV-186
DIFFERENCES BETWEEN CLINIC PROFILE OF THE PATIENTS WITH ACUTE CORONARY SYNDROME ACCORDING TO CLINIC DEPARTMENT

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Objectives: Establish the clinical characteristics of patients admitted for acute coronary syndrome (ACS) in our hospital and check the differences in clinical profile of these patients by entry into Internal Medicine (IM) or Cardiology (CA).

Material and method: Patients admitted to CA and IM during the first 3 months of this year, with a discharge diagnosis of ACS. Patients were classified into 2 groups according to the department

in which they were admitted, CA or IM. Clinical characteristics were obtained from a review of their discharge reports. Included the following variables: age, sex, average stay, cardiovascular risk factors, underlying chronic disease, ischemia tests performed.

Results: 39% of patients with final diagnosis of ACS were admitted to CA, 61% to IM. The mean age of patients admitted to IM was 66.5 and the patients admitted to CA was 64.26. Cardiology patients were somewhat younger, although not significantly. Gender distribution was 61% males in IM and 72% in CA. The average stay of each department was 9.95 days for patients with IM and 8 for CA. The distribution of cardiovascular risk factors (CVRF) is contained in Table 1. MI patients admitted had a higher risk profile due to the predominance of CVRF: hypertension, tabaquism, dyslipemia. Diabetes mellitus distribution was similar in both. Previous ischemic heart disease and heart failure were more frequent in IM patients.

Discussion: The main population admitted with ACS in a hospital are elderly patients and have poor prognosis (underlying chronic disease and high CVRF). Those admitted to IM had a worse risk profile than those to CA. Is significantly higher average stay of patients admitted to IM, due their comorbidities. The admission to different departments might be influenced by multiple factors, in addition to strictly medical indication. Patients who had some other medical condition or increased cardiovascular risk profile were admitted to IM.

Conclusions: Our study shows that the initial admission department of patients with ACS are properly adjusted to the baseline risk profile. CA beds are usually reserved for patients with increased cardiovascular risk and no other chronic disease, while MI beds were assigned to patients with higher underlying chronic disease.

Table1 (RV-186)

Cardiovascular risk factors	Internal Medicine	Cardiology
Hypertension (%)	65.5	61.5
Diabetes mellitus (%)	37.7	38.46
Dyslipemia (%)	59	46.1
Smoker/Ex-smoker (%)	59	53.8

Table 2 (RV-186)

Previous pathologies	Internal Medicine	Cardiology	p
Previous ischemic heart disease (%)	42.6	23	0.46
Heart failure (%)	24.5	20.5	0.63
Chronic obstructive pulmonary disease (%)	13.1	2.5	0.72
Cognitive impairment (%)	3.2	5.1	0.64
Other (%)	24.5	20.5	0.88

RV-187
CARDIOVASCULAR RISK IN A COHORT OF SYSTEMIC LUPUS ERYTHEMATOUS PATIENTS WITH NORMAL RENAL FUNCTION

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Objectives: 1. To evaluate the demographic characteristics and the cardiovascular risk factors prevalence in a clinically stable systemic lupus erythematous (SLE) population with preserved renal function. 2. Analyze the correlation between classic and emerging cardiovascular risk factors with a personal history of lupus nephritis. 3. Analyze the correlation between classic and emerging cardiovascular risk factors with serum TWEAK levels.

Material and method: We conducted a prospective, descriptive, cohort study in a population of 26 clinically stable SLE patients with normal renal function, attending the Internal Medicine Department (Colagenosis and Pulmonary Hypertension Unit) at the "Virgen del Rocío" Hospital, Spain. We studied the prevalence of classic (arterial hypertension, diabetes mellitus, smoking, LDL, HDL, and triglycerides), and emergent cardiovascular risk factors (high-sensitivity C reactive protein (CRP-hs), homocysteinemia, fibrinogen, blood glucose and insulin values, and HOMA index), investigating possible correlations among these factors, a previous personal history of lupus nephritis, and the serum TWEAK values. Data was analyzed using the Mann Whitney U non-parametric test (SPSS Statistics Software 15.0). The association between serum TWEAK values and continuous quantitative variables were done applying the Spearman Rank Correlation. The p-value significance was considered at 0.05.

Results: 1.Patients characteristics and classical/emergent cardiovascular risk factors prevalence. 86.4% women, mean age 43.54 ± 14.93 years old, mean progress disease 14.71 ± 9.24 years. 27.3% received corticoid treatment (lupus nephritis history). 27.3% arterial hypertension, 31.8% hyperlipidemia, 0% diabetic, 9.1% smoked, 102.36 ± 26.03 LDL (mg/dl), 51.73 ± 11.63 HDL (mg/dl), 98.18 ± 42.28 triglycerides (mg/dl), 84.32 ± 6.73 mg/dl fasting glucose levels, 14.86 ± 6.21 homocysteinemia (mcmol/l), 47.59 ± 46.75 lipoprotein (mg/dl), 6.03 ± 8.51 mg/l high sensitivity C reactive protein (), 8.23 ± 2.70 insulin (µmol/ml), 1.71 ± 0.59 HOMA index, 26.96 ± 26.83 (mm/h), 3.96 ± 1.15 fibrinogen (g/l), 852.09 ± 292.30 TWEAK (pg/ml). 2. Classical/emergent cardiovascular risk factors and lupus nephritis. There was a tendency in patients that had a previous history of lupus nephritis to present high levels of LDL (113.25 ± 37.63 vs 96.45 ± 19.086), HDL (52.75 ± 10.75 vs 50.45 ± 10.89), triglycerides (120.50 ± 76.54 vs 85.82 ± 31.41), homocysteinemia, CRP-hs, ESR, lipoprotein, and serum creatinine (1.06 ± 0.31 vs 0.69 ± 0.14, p 0.019). In these patients there were also low levels of serum fasting glucose (84.25 ± 3.09 vs 86.36 ± 8.67), insulin (6.38 ± 3.36 vs 8.93 ± 2.19), HOMA index (1.34 ± 0.74 vs 1.90 ± 0.51), fibrinogen (3.70 ± 1.80 vs 3.92 ± 1.06), and creatinine clearance test measured by MDRD method (66.25 ± 19.56 vs 112.18 ± 20.28, p 0.007). 3. Classical/emergent cardiovascular risk factors and serum TWEAK values. Higher serum TWEAK levels correlated (without statistical significance) to higher levels of the next values: LDL (107 ± 30.18 vs 96.00 ± 18.88), triglycerides (99.58 ± 51.88 vs 84.50 ± 16.52), fasting glucose levels (86.08 ± 5.94 vs 83.75 ± 11.70), homocysteinemia (16.74 ± 7.08 vs 11.80 ± 2.73), lipoprotein (50.33 ± 33.03 vs 22.25 ± 18.24), CRP-hs (1.79 ± 1.58 vs 1.17 ± 0.66), insulin (8.41 ± 2.89 vs 6.70 ± 2.38), fibrinogen (4.02 ± 1.28 vs 3.36 ± 1.43), HOMA index (1.79 ± 0.65 vs 1.38 ± 0.52), and ESR (26.41 ± 19.19 vs 8.25 ± 5.05). A positive linear correlation between TWEAK and ESR was statistically significant.

Conclusions: 1. The prevalence of classical cardiovascular risk factors was the same as that observed in healthy patients, but an important higher prevalence of emergent risk factors was detected in SLE patients, this may have an important role in the evaluation of cardiovascular disease of the population studied. 2. Patients with a previous history of lupus nephritis maintain a tendency to higher lipid levels, with elevated prevalence of emergent cardiovascular risk factors and a decline in insulin resistance. 3. High TWEAK values tend to have a worst metabolic profile. TWEAK levels are usually elevated in SLE patients, especially when associated to vascular inflammation.

RV-188
DIABETES, CORONARY RISK FACTORS AND VASCULAR EVENTS

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Objectives: We analyzed the diabetic population followed in the Cardiovascular Risk Consulting Unit, identifying their prevalence of coronary risk factors and their vascular event's rate. The goal was to determinate if an adequate risk factor control had a positive impact on the vascular events rate.

Material and method: We studied a sample of 91 patients followed in the Cardiovascular Risk Consulting Unit (Age: 66.7 years, Male: 78%, Female: 22%) in which 44% of the population was diabetic. We used the SPSS V17.0 to analyze variables such as coronary risk factors, anthropometric indices, lipid profile, intervention cardiology and events in the diabetic and non diabetic population.

Results: Diabetic Population and Risk Factors: Age 68 years; Gender 80% Masculine; Arterial Hyper Tension (AHT) 87.5% (Mean Blood Pressure (BP) 137.7/76.4 mmHg); Dyslipidemia 45% (Total Cholesterol 143 mg%; HDLc 42.3 mg%; LDLc 75.13 mg%; Triglycerides 125 mg%); Body Mass Index (BMI) 27.35. Diabetic Population and Events: Coronary Artery Disease (CAD) without ST Elevation 20%; CAD with ST Elevation 27.5%; Stroke 10%. Diabetic Population and Intervention Cardiology: Catheterism 62.5%; Percutaneous Transluminal Coronary Angioplasty (PTCA) 35%, Coronary Artery Bypass Graft (CABG) 10%. Non Diabetic Population and Risk Factors: Age 66.9 years; Gender 78% Masculine; AHT 81% (Mean BP 139.3/79.3 mmHg); Dyslipidemia 41% (Total Cholesterol 139.3 mg%; HDLc 40.9 mg%; LDLc 85.8 mg%; Triglycerides 122.5 mg%); BMI 27.9. Non Diabetic Population and Events: CAD without ST Elevation 19.78%; CAD with ST Elevation 41.76%; Stroke 7.69%.Non Diabetic Population and Intervention Cardiology: Catheterism 72.5%; PTCA 39.2%, CABG 23.53%.

Discussion: This is a very specific sample, it's important to add that this population is referred to the consult for having risk factors difficult control, in primary prevention, or after a vascular event, in secondary prevention. The diabetic population was older; had a higher prevalence of AHT (with better tensional profile); had a higher prevalence of dyslipidemia (with better lipid profile); and a lower BMI, which represents an adequate risk factor control achieved by the patient's and physician's compliance. The diabetic population had also less coronary events, especially CAD with ST Elevation (with statistic signification at.05 level). On the other hand, the diabetic population had a slighter higher prevalence of Stroke. As result of the inferior event's rate, the diabetic population consumed less intervention cardiology resources.

Conclusions: 1. The diabetic population had a higher prevalence of coronary risk factors and a better control than the nondiabetic population; 2. The inferior rate of coronary events in diabetics may be a result of the risk factor's control; 3. The risk factor's control in diabetics may attenuate their natural tendency for coronary events.

RV-189
NON TRAUMATIC INTRACRANIAL HAEMORRHAGES MORTALITY AND FACTORS OF WORSE PROGNOSIS

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Objectives: The aim of this study was to analyze non traumatic intracranial haemorrhages mortality and the identification of factors of worse prognosis.

Material and method: We have performed a retrospective analysis of the hospital discharges in with diagnosis include intracerebral, subarachnoid or subdural haemorrhages from 1 of January of 2011 to the 31 of December of 2011.

Results: We identified 60 cases with intracranial haemorrhage (59 patients), male (58%), mean age 70 years. Mortality was 15%, 9 patients: 7 intracerebral (7/44, 16%), 1 subdural (1/3, 33%) and 1 subarachnoid haemorrhages (1/13, 8%). Five of the dead patients were taking anticoagulant (2), antiplatelet (2) or both treatments (1). The mean age of those dying are greater with 75 years while those who survive have an mean age 69 years. The indication for anticoagulation of the 3 patients who died was 2 atrial fibrillation and 1 (with clopidogrel) for coronary heart disease (subdural haemorrhage). Those factors of poor prognosis are male 17% vs 12%, coronary heart disease 67% vs 12% taking antiplatelet or anticoagulants 24% vs 11% (28.5% taking anticoagulants, 15% taking aspirin), hypertension 21% vs 8%, diabetes mellitus 31% vs 11%, atrial fibrillation 37% vs 11.5%, history of ischemic cerebrovascular disease 33% or haemorrhagic stroke 14% vs no stroke 13% (3 patients of 6 with history of ischemic cerebrovascular disease are taking antiplatelet and 1 anticoagulant; only 1 patients of 7 with history of haemorrhagic stroke are taking low molecular weight heparin). In the multivariate analysis showed risk factors associated with mortality were coronary heart disease [OR 45, 95%CI: 2.77-730] and atrial fibrillation [OR 17, 95%CI: 2.15-132].

Conclusions: The mortality in non traumatic intracranial haemorrhages was 15%, lower than in other series, higher prevalence in patients previously treated with antiplatelet or oral anticoagulants therapy. The risk factors associated with mortality were coronary heart disease and atrial fibrillation.

RV-190
VENTRICULAR HYPERTROPHY STUDY IN A COHORT OF HYPERTENSIVE PATIENTS

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Objectives: Previous studies have shown the relationship between left ventricular hypertrophy (LVH), left ventricular geometry and cardiovascular risk. The aim of our study is to analyze the presence and type of LVH in a cohort of hypertensive patients and its relationship with other cardiovascular risk factors.

Material and method: Echocardiographic data were analyzed from 85 patients seen in a Hypertension Unit. Hypertensive patients were classified into four groups according to echocardiographic findings: normal geometry, concentric remodelling, eccentric hypertrophy, or concentric hypertrophy taking into account left ventricular mass index and relative wall thickness. LVH was measured by the ASE method and corrected by Devereux. We studied the correlation between HsCRP, diastolic dysfunction, non-dipper pattern, UAE, hypertensive retinopathy and history of cardiovascular events (ischemic heart, cerebrovascular and peripheral arterial diseases) and the different patterns of LVH. All statistical analyses were performed using SPSS version 18.0.

Results: The prevalence of LVH was 51.4% Among hypertensive patients, left ventricular mass index and relative wall thickness were normal in 34.3%, whereas 14.3% had increased relative wall thickness with normal ventricular mass (concentric remodelling), 17´1% had increased mass with normal relative wall thickness (eccentric hypertrophy) and 34´3% had typical hypertensive concentric hypertrophy. No statistical associations were found between different patterns of LVH and other cardiovascular risk factors and cardiovascular events.

Discussion: It is known that the presence of LVH is an independent cardiovascular risk factor. The geometry of hypertrophy also has prognostic significance, as has been demonstrated in many studies. Patients with concentric hypertrophy and remodelling have a higher rate of cardiovascular events than patients with eccentric hypertrophy. In our study the majority of hypertensive patients had concentric LVH, as expected. However we did not find statistically significant association between different geometric patterns of LVH and other studied cardiovascular risk factors.

Conclusions: 1. LVH is highly prevalent in our population of hypertensive patients.2. The most prevalent type of hypertrophy is concentric.3. No correlation was obtained between different patterns of LVH and other cardiovascular risk factors, possibly due to the small sample size.

RV-191
CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF PATIENTS WITH ISCHAEMIC STROKE AND TREATMENT AT DISCHARGE

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Objectives: We have performed a retrospective analysis of the hospital discharges in with diagnosis include ischaemic stroke from 1 of January of 2011 to 31 of December of 2011.

Material and method: We have performed a retrospective analysis of the hospital discharges in with diagnosis include ischaemic stroke from 1 of January of 2011 to 31 of December of 2011.

Results: We identified 198 hospital stays with ischaemic stroke (194 patients), 56% women, mean age 76 years (age ranged 41-102), 62% aged > 75 years, 21% aged > 85 years and 10% aged > 90 years. The affected vascular territory was 62% anterior circulation, 16.6% vertebrobasilar, 6% both and 14.6% lacunar stroke. Subtypes of infarction were cardiogenic embolism 21% and atheroma thrombosis 24%. Others comorbilities most commonly associated were hypertension 70%, dislipemia 34.4%, diabetes mellitus 26%, atrial fibrillation 25.8%, ischaemic cerebrovascular disease 21%, chronic renal failure 17.2%, peripheral vascular pathology 13.6%, valvular disease 12.6%, coronary heart disease 8.6% and heart failure 8%. Others diagnosis were anemia 23%, alcohol intake 13%, neoplasia 10.6% and chronic obstructive pulmonary disease 4.5%. Mortality was 12.6%. Forty percent was taking antiplatelet or anticoagulant therapy, 22% aspirin, 7% clopidogrel and 14.6% oral anticoagulation (4 patients aspirin with clopidogrel and 2 patients clopidogrel with anticoagulant). Fifty percent patients with history of atrial fibrillation was taking anticoagulation treatment. Treatment at discharge were 66.5% aspirin, 18% clopidogrel and 22% anticoagulation (11 aspirin with clopidogrel and 7 aspirin with anticoagulant).

Conclusions: Ischemic stroke patients presented high proportion of elderly patients, anterior circulation vascular territory affected and receive antiplatelet or anticoagulant on admission (half of patients with atrial fibrillation were anticoagulated).Hypertension was the most common associated comorbidity. Although 40% were taking antiplatelet or anticoagulant therapy suffered an ischemic stroke. Aspirin is the most widely used drug treatment at discharge.

RV-192
EFFICIENCY OF MICROCURRENTS USE ON DIABETIC NEUROISCHEMIC ULCERS HEALING

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Objectives: 1. Evaluate the clinical effect of PhyBack PBK-2C device on neuroischemic ulcers in diabetic patients compared to placebo by measuring the ulcer size and transcutaneous oxygen pressure levels. 2. Determine the release and the effect of VEGF produced by the action of this device on the ulcers. 3. Establish the clinical correlation between serum levels of VEGF and wound healing.

Material and method: Experimental, prospective, triple, randomized, placebo-controlled study which tries to analyze two groups of diabetic patients with neuroischemic ulcers (some treated with microcurrent and other treated with placebo) Target population: Patients with confirmed diagnosis of diabetes mellitus with neuroischemic ulcers. Sample: a total of 17 were included. They met the inclusion criteria and present no exclusion criteria.

Results: Transcutaneous oxygen pressure (TcpO2): Regarding the TcpO2, their average levels at day zero in the control group and experimental group were 37.4 +/- 3.6 and 23.83 ± 13.5 mmHg, respectively. On day 5, TcpO2 in the control group is 41.4 ± 7.6 mmHg with a p-value = 0.230. In the experimental group the value of this parameter on day 5 is 37 ± 15.1 mmHg (p = 0.02) In the experimental group, TcpO2 level is still increasing today 30 (43.9 ± 10.1 mmHg) This is higher than those found for the same group on day 0 and day 5. At day 90, the findings obtained by day 30 were confirmed with parameter values analyzed of 39.2 ± 9.5 mmHg for the control group. The group receiving electrotherapy presented at day 90, TcpO2 levels of 43.2 ± 5.9 mmHg (p value 0.039) While not greater than 30 days, their value is higher than those found for the control group and furthermore, it is almost 20 points higher than that observed in this group at day 0. VEGF values: These values, which were collected only three days (0, 5, and 30) also have been more favorable in the experimental group. At day 0, VEGF levels were higher in the experimental group. Thus, values in this group were 191.81 ± 316 pg/ml, whereas in the control group were 104.2 ± 93.7 pg/ml. VEGF values in the control group at day 5 and day 30 were 179.07 ± 164.6 and 112.26 ± 101.1 pg/ml respectively with a p value of 0.101 for day 5 and 0.669 for day 30 In the group receiving the device application PhyBack PBK-2C there was a progressive and statistically significant rise in the VEGF levels. Thus, levels at days 5 and 30 were 250 ± 465.39 and 316.39 ± 829.9 respectively with values of p = 0.008 and 0.021. These values show a clear increase in VEGF levels after application of microcurrents. Ulcer size and healing: At day 90, 100% of patients in the experimental group had presented complete healing of the ulcer, while only 60% of patients in the control group had. This probably has important implications, both in quality of life and in reducing pain and complications of these patients in the short to medium term.

Discussion: Microcurrents use in diabetic neuroischemic ulcers improves healing process. However, the number of patients included in this study, is not enough to asseverate this fact and more studies are necessary.

Conclusions: Microcurrents use in diabetic neuroischemic ulcers induces a clinical improvement, accelerating the healing process, due to an increase in VEGF levels.

RV-193
CARDIOVASCULAR RISK IN THE FIRST VISIT OF A HYPERTENSION UNIT

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Objectives: To describe the cardiovascular risk (CVR) in a hypertensive population in the first hospital visit and its relationship with non-dipper pattern, high sensitive C reactive protein (hsCRP) and urinary albumin excretion rate (UAE).

Material and method: We performed a retrospective study of patients seen for the first time in a hospital hypertension unit in 2011. We collected the following variables: age, sex, body mass index (BMI), smoking habits, diabetes, dyslipidaemia, chronic kidney disease, history of ischemic heart, cerebrovascular and peripheral arterial diseases. hsCRP, UAE, ambulatory blood pressure monitoring (ABPM), echocardiogram, fundus and CVR calculated by SCORE (spanish specific calibrated version, 2007, published by the 4th Joint European Societies' Task Force on Cardiovascular Disease Prevention in Clinical Practice) were determined. All statistical analyses were performed using SPSS version 18.0.

Results: We included 83 patients, mean age 55 ± 16 years, 43% men. Total cardiovascular risk was stratified into low (20%), moderate (47%), high (20%) and very high (14%). 11% were diabetic and 5% had a previous cardiovascular event. 51.4% had left ventricular hypertrophy (LVH) (measured by the ASE method and corrected by Devereux) and 36% had diastolic dysfunction. 40% of patients had microalbuminuria and 32% hypertensive retinopathy. 32% of patients had non-dipper pattern. 16% had hsCRP > 0.5 mg/dl, which was associated with the presence of DM ($p = 0.016$). We obtained a moderate direct linear relationship of hsCRP with age ($r = 0.3$) and UAE ($r = 0.7$). We found a statistically significant association of hypertensive retinopathy grade 3-4 with stroke and peripheral arteriopathy ($p < 0.01$). Microalbuminuria was associated with high waist circumference (105.7 ± 13 cm vs 85.7 ± 11.2 cm, $p = 0.002$). There was also a statistically significant relationship between microalbuminuria and male sex ($p = 0.034$), smoking habits ($p = 0.003$), LDL increased ($p = 0.002$) and non-dipper pattern ($p = 0.047$).

Discussion: Hypertension is an asymptomatic disease. Many studies show that it is important to stratify cardiovascular risk in hypertensive patients, but this is not often done. In our study we try to assess cardiovascular risk status of patients in the first visit to our unit. We found that moderate-high cardiovascular risk and target organ damage are very common.

Conclusions: 1. In our study, the prevalence of cardiovascular events among patients attending for the first time in a hospital hypertension unit is low, possibly because they are referred to other specialists. 2. Many patients have asymptomatic cardiovascular risk factors such as LVH, non-dipper pattern and high UAE, requiring more aggressive attitude. 3. In our study, the elevated hsCRP is more common in patients with DM in our population but is not associated with other cardiovascular risk factors.

RV-194
ISCHAEMIC STROKE MORTALITY AND ASSOCIATED FACTORS OF WORSE PROGNOSIS

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Objectives: The aim of this study was to analyze ischaemic stroke mortality and the identification factors of worse prognosis.

Material and method: We have performed a retrospective analysis of the hospital discharges in with diagnosis include ischaemic stroke from 1 of January of 2011 to 31 of December of 2011.

Results: We identified 198 cases with ischaemic stroke in 194 patients, 56% women, mean age 76 years. Mortality was 12.6%, 76% female, mean age 85 years (75 years in survivors) and 88% aged > 80 years. Atrial fibrillation was present in 60%. Although 50% patients with history of atrial fibrillation were taking anticoagulation treatment, they had an ischaemic stroke. Those factors of poor prognosis are aged > 75 years (19% vs 3%), female (17% vs male 7%), heart failure (37.5% vs 10%) and atrial fibrillation (29% vs no atrial fibrillation 7%). The multivariate analysis showed as risk factors associated with mortality aged > 75 years [OR 6, 95%CI: 1.34-27] and atrial fibrillation [OR 4, 95%CI: 1.73-10.5].

Conclusions: The mortality in ischaemic stroke was 12.6%, similar than in other series. The risk factors associated with mortality were coronary heart disease and atrial fibrillation.

RV-195
PREVALENCE OF HYPERTENSION ONE YEAR AFTER DELIVERY IN WOMEN WHO DEVELOP PREGNANCY GESTATIONAL HYPERTENSION

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Objectives: To analyze the prevalence of hypertension one year after delivery in women who develop pregnancy gestational hypertension.

Material and method: A retrospective cohort study, including patients diagnosed during pregnancy of gestational hypertension during the inclusion period from January 1, 2007 to June 31, 2011. The diagnosis of gestational hypertension was established for those women from 20 weeks of gestation had blood pressure > 140/80 mmHg classifying them as mild to moderate hypertension, and > 160/100 mmHg severe hypertension. Analysis of demographic variables, comorbidity, laboratory, and treatment. We conducted a follow-up period of 1 year.

Results: A total of 138 women with a mean age of 30 years were included. The diagnosis of hypertension was established on average at 36 weeks gestation (SD 3,837), labor happening at 38 weeks on average (SD 1,928). With regard to obstetric history, 44% had had previous pregnancies (57% one pregnancy, two pregnancies 27.5%, 7.2% three pregnancies, 5.1% four pregnancies, 2.9% five pregnancies), of which 23.7% had been diagnosed of gestational hypertension (66.7% had required treatment). In 27% of patients had developed complications during the pregnancy, the most frequent preeclampsia (56.3%).Up 80.7% had no family history of hypertension. 1.4% had a history of diabetes mellitus prior to pregnancy, and 11% were diagnosed with gestational diabetes. 81% of pregnant women were diagnosed with mild-moderate gestational

hypertension, and the remaining 18.9% severe hypertension requiring treatment, 55.4% (labetalol (90%), alpha methyldopa (6.7%), nifedipine (1.7%), other (1.7%)). In 87.9% of patients in our study the pregnancy ended at term (from 37 weeks of gestation); intrapartum complications arise in 62.7% of cases, most of them in the form of preeclampsia (88.1%), followed by other complications like premature rupture of placenta (7.1%) and eclampsia (4.8%). In the laboratory, level of urea were 22 mg/dl, creatinine 0.65 mg/dl, and quantified proteinuria presented a median of 410 mg/g. 33% of the women in our study continued antihypertensive treatment after birth, although only 11.3% reported having made outpatient controls blood pressure. At three months postpartum 22.2% remained hypertensive, and at one year only 3.3%.

Conclusions: 1. The diagnosis of gestational hypertension is usually close to delivery. 2. About a quarter of women had gestational hypertension presented in previous pregnancies, complications occurred in 66.7% of cases, the most common pre-eclampsia. 3. In our study the majority of women had a moderate mild gestational hypertension (81%), requiring treatment in 55.4% of cases, being the drug of choice labetalol. 4. In 62.7% of pregnant women found complications, most of them in the form of pre-eclampsia, with proteinuria numbers around 410 mg/g. 5. The prevalence of hypertension one year after the development of gestational hypertension is very low.

RV-196
EARLY STAGE OF HYPERTENSIVE RETINOPATHY. IS IT REALLY IMPORTANT?

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Objectives: HT, which has an important role in pathogenesis of atherosclerotic cardiovascular diseases (CVD) affects the whole arterial system, not only the coronary arteries. Plays a role in atherogenesis by causing endothelial dysfunction (ED) and increasing vascular microinflammation. Retina; is the only place in the body which vascular structures can be seen and assessed with the naked eye. Retinopathy;is a disease that defines the changes at retinal arteries and venules caused by chronic diseases; and known since the mid-1700s. Hypertensive retinopathy (HTRP) was described by Marcus Gunn in 1936 for the first time. Ophthalmoscopic examination is a simple, easy to administer and cheap procedure that can give important information about disease activation and prognoses for Following-up the diseases affecting vascular structures. In this study, we aimed to investigate the relationship between markers of endothelial dysfunction and vascular microinflammation, which has quite an important place at process of early hypertensive retinopathy and atherogenesis; and to determine the potential clinical benefit with a larger-scale studies if there is a relationship.

Material and method: A total of 99 people consisting of patients with a diagnosis of essential hypertension (n = 73), healthy (n = 26) were included to the study. Patients had no diseases other than HT. The routine laboratory tests which recommended ESC/ESH and JNC VII guidelines were done, also fundoscopic evaluation for organ damage, microalbuminuria, left ventricular hypertrophy and carotid intima-media thickness (CIMK) investigated. FMD and NMD process which are non-invasive methods described by Celermajer et al were performed to determine the ED in patients. ADMA as a marker of ED, and hsCRP, sTWEAK levels were measured with as a marker for vascular microinflammation. Retinopathy screening were done by same person with Canon CR-1 Mark II'' Digital Non-mydriatic fundus camera after photographing the fundus by Keith-Wagner-Barker staging. Statistical analyzes were performed using SPSS 15.0 program.

Results: 73 patients (f: 44 m: 29) and 26 healthy subjects (f: 20 m: 6) in the total 99 people attended. The mean age of the patient group was (48.74 ± 12.2), the mean age of the control group was (38.62 ± 8.7). Hypertensive patients mean disease duration was (6.7 ± 5.7). The average arterial blood pressure (ABP) of hypertensive patients and control group were respectively (140.1 ± 13.7/86.1 ± 10.7) (107.12 ± 10.0/65.38 ± 10.2) were detected. 60.3% of hypertensive patients (n = 44) had HTRP, 39.7% (n = 29) had not. 52.1% of those with retinopathy were stage 1, 8.2% were stage 2, found to be. Hypertensive patients compared with controls; hsCRP, ADMA and sTWEAK (p: 0.011, p = 0.000, p: 0.000) levels were significantly higher in hypertensive group. FMD-NMD measurements were lower in the hypertensive group as expected but it was not statistically significant (p: 0.36/0.85). FMD and NMD rates were significantly lower in patient with retinopathy. (p = 0.033). And also hsCRP, sTWEAK and ADMA levels were significantly higher in patients with retinopathy (p: 0.039, p: 0.000, p: 0.000). Also, at assessment among the patients with retinopathy and no retinopathy; FMD-NMD measurements were significantly lower at retinopathy group, and this was statistically significant. (p: 0.12, p: 0.12).

Discussion: As it is expressed before; there is a close relationship between progressed retinopathy at hypertensive patients and CVD as with CAD, CVA. But the relationship between the current situation with early-stage retinopathy is still not fully elucidated. At this study; patients with stage 1 and stage 2 HTRP compared with healthy control group there is more increase in endothelial dysfunction, in comparison to the patients without HTRP. And it was found to be statistically significant. atherogenesis and vascular micro-inflammation which has an important role in endothelial dysfunction were shown to be impaired in patients with early-stage HTRP.

RV-197
HOW DO WE DIAGNOSE RENAL INFARCTION?

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Objectives: Renal infarction is a disease with high mortality and morbidity that frequently leads to delayed diagnosis due to its low clinical expression, low diagnostic suspicion and clinical mimicry as a banal and common pathology such as ureteral colic. The pathogenic mechanisms are very common and are related to frequent diseases such as cardioembolism (atrial fibrillation) and hypercoagulable states.

Material and method: Retrospective descriptive study including all cases of renal infarction diagnosed at the Universitary Hospital of Fuenlabrada from the opening date (2004) until 2010. It describes the epidemiological, clinical, and laboratory outcomes.

Results: Of the 16 cases diagnosed during these 6 years, we observed a clear predominance of males (62%). Etiologically, cardiovascular risk factors were associated in up to 75% of the patients (hypertension 56%), neoplasms and hypercoagulable states in up to 62%. Of all de cases described, 10 cases presented symptoms of abdominal pain (in the remaining 6, it was an incidental diagnosis). Of the 10 cases, 3 were early diagnosed, with a global diagnostic delay ranging from 2 to 6 days. Of the classically described analytical findings, high LDH was evident in 100% of the patients.

Conclusions: The diagnosis of renal infarction is complicated by the non-specific symptoms and the need for unusual imaging tests for confirmation (CT, arteriography...), and its precocity is crucial in order to improve the patient's renal function. However, there are epidemiological, analytical and clinical factors that are especially useful to enhance our clinical suspicion. Furthermore, their

detection is a warning sign that should raise suspicion and condition further studies to rule out other possible diseases that are associated such as underlying neoplasms.

RV-198
INFLUENCE OF OBSTRUCTIVE SLEEP APNEA SYNDROME ON METABOLIC SYNDROME

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Objectives: The aims of the study were to assess if obstructive sleep apnea syndrome (OSAS) may increase the risk of developing metabolic syndrome and to determine the prevalence of metabolic syndrome in patients with OSAS.

Material and method: In cross-sectional study (case-control) during 6 months in the hypertension and cardiovascular risk unit were recruited cases defined as patients with an apnea-hypopnea index (AHI) > 5 events/h and controls were designed as suggestive OSAS clinic and AHI < 5 events/h. Exclusion criteria were as follows: OSAS with CPAP therapy, COPD patients and patient refuse to participate in the study. 158 cases and 32 controls at 0 and 6 months were evaluated on cases and control subjects: physical examination, smoking and alcoholism habits, EKG, ankle-brachial index (ABI), office blood pressure (BP), ambulatory BP monitoring (ABPM), 24 hours BP and hemogram and biochemical blood and urine test. Metabolic syndrome was defined according to 2009 AHA consensus document.

Results: 53.2 ± 8.7 year-old on average were in cases and 52.6 ± 9.9 year-old in controls. Smoking and alcoholism were more numerous in the group control (43.8% vs 38.6% and 25.0% vs 17.1% respectively; p = 0.292). Cases group had a statistically significant higher BP (50% vs 31%; p = 0.045) and dyslipidemia (32% vs 12%; p = 0.024). Biochemical parameters related with metabolic syndrome showed significantly higher values in cases: fibrinogen (385.71 vs 393.00 mg/dl; p = 0.043), glucose (113.47 vs 101.79 mg/dl; p = 0.025), HbA1c (5.959 vs 5.793 g/l; p = 0.009), LDL cholesterol (124.19 vs 112.40 mg/dl; p = 0.019) and creatinine (0.906 vs 0.847 mg/dl; p = 0.009). No significant differences were observed in remaining analytical variables. On logistic regression analysis, given the presence of metabolic syndrome as a dependent variable, OSAS presence predicted significantly the existence of metabolic syndrome (95%CI: 1.10-5.52; p = 0.028) regardless of sex, age, BMI and alcoholism. Therefore the presence of OSAS multiplied by 2.5 the risk of metabolic syndrome.

Discussion: This study shows how OSAS is associated with the developing risk of metabolic syndrome. OSAS was related with 2 components of the metabolic syndrome: hypertension and dyslipidemia. There was a greater number of components of the metabolic syndrome in OSAS patients which indicates that in patients with greater severity of apnea, the likelihood of metabolic syndrome is higher. This interrelationship was independent of confounding factors such as sex, age, body mass index and the consumption of tobacco and alcohol. It demonstrates metabolic syndrome by itself, may enhance the effects of OSAS in cardiovascular disease through the activation of the sympathetic nervous system (mediated by hypoxia and hypercapnia), triggering the cascade of inflammatory response and its consequences on the components of the metabolic syndrome.

Conclusions: The presence of OSAS is an independent risk for developing metabolic syndrome. This increase of risk is independent of gender, age, BMI and consumption of alcohol. OSAS patients had higher BP levels with less decline nocturnal BP and worse glycemic and lipid control. Minor metabolic control may be released with the hiperinsulinemia and hiperfibrinogenemia. Inadequate hemodynamic and metabolic control regardless of waist circumference in OSAS patients may contribute to an increased of cardiovascular risk.

RV-199
CARDIOVASCULAR RISK FACTORS (CVRF) AMONG PATIENTS NOT REFERRED BECAUSE OF CV RISK

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Objectives: To describe the CVR profile among patients referred to a Clinic for problems not related with CVR.

Material and method: Data from patients attending for any reason other thant CVR management were recorded. Numerical variables are expressed by means ± SD (range) and compared using Spearson's correlation coefficient. Categorical variables are expressed in absolute numbers (percentage) and compared by means of Chi-square test or U-Mann-Whitney test when this was deemed appropiate.

Results: A total of 191 were yielded. Patients were 61 ± 19.7 years old, with 83 (43.5%) women. Most of the patients were either illiterate (31; 16.2%) or attended only primary school (83; 43.5%). 33 patients (17.3%) admitted drinking more than 40 g/day. 31 (16.2%) were current smokers and 59 (30.9%) were former smokers. There was a clinical history of blood hypertension (BHT), diabetes mellitus (DM) or dyslipidemia in 111 (58.1%), 49 (25.7%) and 83 (43.5%) cases, respectively. 60 patients (31.4%) were obese. Mean body mass index (BMI), systolic blood pressure (SBP) and glucose levels were 27.55 ± 5.4 kg/m^2, 133.25 ± 20.79 mmHg and 103.17 mg/dl respectively. Mean HbA1C, LDL-cholesterol, HDL-cholesterol and triglycerides levels were 5.94 ± 0.95%, 108.45 ± 43 mg/dl, 48 ± 18.3 mg/dl and 124.15 ± -66.97 mg/dl. Mean ultra-sensitive CPR was 3.01 ± 8.61mg/dl. CV damage in the form of ischaemic cardiomyopathy, congestive heart failure, atrial fibrillation and chronic kidney disease showed a relatively high prevalence (13.6%, 24.1%, 13.1 and 12.6% respectively). CPR levels showed a mild positive significant correlation (r = 0.198; p = 0.035) with triglycerides levels and a negative one with HDL levels (r = -0.321; p = 0.001). SBP closely correlated (r = 0.301; p = 0.001) with BMI and with HbA1C levels (r = 0.316; p = 0.002). There was a marginal correlation with CPR levels and CVR estimation measured by SCORE (p = 0.069). Cultural background closely correlated with CVR (Chi-Square = 48.89; p = 0.001).

Discussion: CVRF and CV damage show a relative high prevalence among patients not referred because of CVR assessment to a general Internal Medicine Clinic. Classical and novel biomarkers show good reliability in assessing CVR.

Conclusions: Despite not being referred to the clinic because of CVRF, among the general population in the Canary Islands, especially among individuals with lower social status, CVR is a prevalent reality that should always be assessed, whatever the cause for the patient to be in the clinic. In times of economical crises, special attention should be paid to high risk population.

RV-201
EVALUATION OF GLUCEMIC CONTROL WITH A NEW PROTOCOL FOR INPATIENTS INSULIN THERAPY

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Objectives: A new protocol for inpatients insulinization has been developed and established in our center in late 2010. It is based on SAEN (Endocrinology and Nutrition Andalusian Society) recommendations. We evaluated the glucemic control, as well as hypoglycemia rate in our patients.

Material and method: 122 patients receiving insulinotherapy were randomly selected from a monthly pharmaceutical prescription list.

Patients with hospital length of stay less than 24 hours; inpatient death; and single elevated glycemia without posterior confirmation were excluded from the study. We have done a descriptive study. We reviewed medical histories and we analyzed variables as age, gender, hospital service in which they were admitted, basal glycemic number, capillary blood glucose control, glycemia in the morning; premeal mean glycemia in the noon; premeal mean glycemia in the afternoon; and bedtime glycemia, Hb A1C (the three previously months), weight, BP rate and hypoglycemia rate in our patients.

Results: Mean value of fasting glucose level on admission was 165.13 mg/dl, premeal (30 minutes before) mean glycemia in the morning was 167.65 mg/dl; premeal mean glycemia in the noon was 189.38 mg/dl; premeal mean glycemia in the afternoon was 204.77 mg/dL; and bedtime glycemia was 205.04 mg/dl. Glycemia records were 93.4% for premeal mean glycemia in the morning, 92.62% for premeal mean glycemia in the noon; and 91.80% for premeal mean glycemia in the afternoon. However only a small percentage of patients (34.43%) were checked before sleep, they were the same who had high premeal mean glycemia in the afternoon. We've only documented 13 cases of hypoglycemia (10.65%); 43.84% were at night; 30.77% were on fasting; and 15.38% were of severe grade.

Conclusions: Generally, they had good BP and basal glycemic control during the hospitalization. In spite of intensive glycemic control, hypoglycemia rate was low.

RV-202
EVALUATION OF TREATMENT PLANNING AFTER DISCHARGE WITH A NEW PROTOCOL OF INSULIN THERAPY

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Objectives: A new protocol for inpatients insulinization has been developed and established in our center in late 2010. It is based on SAEN (Endocrinology and Nutrition Andalusian Society) recommendations. We evaluated treatment at hospital discharge.

Material and method: 122 patients receiving insulinotherapy were randomly selected from a monthly pharmaceutical prescription list. Patients with hospital length of stay less than 24 hours; inpatient death; and single elevated glycemia without posterior confirmation were excluded from the study. We have done a descriptive study reviewing medical charts and analyzing variables including age; gender; basal glycemic levels; Hb A1C (any in the last three months); weight; Blood Pressure previously; home treatment; hospital prescription and adherence to protocol; treatment at hospital discharge; (oral antidiabetic drugs (OADs); OADs + insulin or insulin; and kind of regimen.

Results: Home treatment was performed mostly with OADs (51.64%); 32.79% were on insulin therapy alone; 13.93% were on insulin plus OADs; and only 2 patients were not receiving any treatment but hypoglycemic diet. Most of the patients were on intensive insulin regimen during the hospitalization (86.88%). Most patients were on ADOS at discharge (46.72%). 18.03% were on metformin; 2.46% were on sulfonylureas; 2.46% were with glinides; none of them were receiving incretin mimetics. The 36.89% were prescribed insulin (22.95% with intensive regimen, 15.57% basal insulin and 11.47% with biphasic).

Conclusions: Most patients were previously on ADOS. Most of home treatments were unchanged, but insulin had to be initiated in 17.21%. Around 5% of patients were discharged with intensive regime indications, keeping the same prescribed during admission.

RV-203
HAEMODYNAMIC INSTABILITY FOLLOWING BARIATRIC SURGERY: AN UNUSUAL COMPLICATION?

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Objectives: Bariatric surgery (BS) is a popular and effective method in the treatment of morbid obesity. In the majority of patients BS results in significant weight loss. Symptoms and signs of orthostatic hypotension following rapid weight loss have been described especially in starvation, but may also occur after BS. We describe three patients with severe orthostatic intolerance after BS.

Results: Case report: three patients (two males and one female; mean age 44.3 ± 2.9 years) who had undergone BS and developed clear symptoms of orthostatic intolerance and were admitted to the hospital. On average they lost 54.0 ± 20.2 kg body weight (representing 37.4 ± 9.9% of their original body weight). Their initial BMI was 42.2 ± 3.2 kg/m^2 which decreased after laparoscopic sleeve resection to 26.1 ± 2.9 kg/m^2. All three subjects developed new-onset syncope, near-syncope and dizziness within a mean term of 13.3 ± 8.1 months after surgery. Their mean systolic blood pressure decreased from 132.5 ± 10.6 mmHg to 117.5 ± 24.7 and their heart rate decreased from 81.0 ± to 55.5 ± 14.8 bpm. ECG, electrocardiography and 24h holter registration were normal. None of the patients had deficiencies of vitamins or minerals and there were no other biochemical abnormalities responsible for their symptoms. Based upon these results all three patients were diagnosed with (postural) orthostatic hypotension following excessive weight loss.

Discussion: BS is an effective method to treat (morbid) obesity. Orthostatic hypotension can be a severe side-effect of BS and has been described previously. Its exact incidence and etiology is unknown. The likely mechanism of orthostatic failure is autonomic insufficiency combined with reverse course of obesity-related hypertension. In general, the orthostatic hypotension disappears if the patient regains weight. As BS is getting more popular in the Netherlands, more people presenting with orthostatic intolerance following rapid weight loss are expected. Further investigations will be necessary to determine the exact incidence of orthostatic intolerance and to identify those patients at greater risk for developing orthostatic intolerance following BS.

VTE

T-1
THROMBOPROPHYLAXIS IN HOSPITAL AT HOME UNIT

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Objectives: To assed our Hospital at Home Unit (HHU) level of thromboprophylaxis fulfilment and relationship with a description analysis of the unit.

Material and method: Descriptive analysis of HHU: age, length of stay, admission illness, fulfilment of thromboprophylaxis.

Results: Between July 2011 to January 2012 was admitted in HHU 259 patient with mean age 71 years old and length of stay of 6.2 days. During that period, return to hospital 37.8% (n = 38) patients. 14.8% were visited in emergency department and 12.1% readmitted in conventional hospitalized (that represented 81% of emergency visited). 7% had a programmed visiting. Only 2% needs an image test. 0.8% death (N = 2). The more frequent illness was pneumologic disease -15.7%- (COPD, asthma, pneumonia), infectious disease -5.31%- (urinary, soft tissues, abscess) and cardiovascular (3.2%). We made thromboprophylaxis in 42.1% of the patients when was indicated in 90%. The patients who made it have the same mortality, readmission and length of stay than who has not made it.

Discussion: The Hospital at Home Unit is an alternative to conventional hospitalization in chronic disease when are decompensate, mild infectious disease with needing antibiotic therapy. The risk of venous thromboembolic disease is the same than in conventional hospitalized hence thromboprphylaxis follow indicated. A despite this, the realization of thromboprophylaxis in HHU is low.

Conclusions: There is a low ratio of thromboprophylaxis in our Unit despite of high level of indication.

T-2
EPIDEMIOLOGICAL CHARACTERISTICS OF PATIENTS WITH SUPERFICIAL VEIN THROMBOSIS OF THE THROMBOEMBOLIC DISEASE UNIT OF HOSPITAL GENERAL DE CIUDAD REAL

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Objectives: Determine the epidemiological characteristics of patients seen in the thromboembolic disease unit of the Hospital General of Ciudad Real who have suffered a superficial vein thrombosis between January 2011 and April 2012.

Material and method: All patients who have had superficial vein thrombosis of the official record of the thromboembolic disease unit of the Hospital General de Ciudad Real were studied retrospectively. The information was extracted from the patients´ medical records. A data collection protocol was developed and it included the following variables: age, sex, origin of the patient, varicous vein, recurrence, hypercoagulable state, idiopathic (those with healthy vein without known predisposing factors), previous surgery of varicose veins and treatment. We excluded patients whose data could not be collected. About 90% was derived from the vascular surgery consultation, 10% from internal medicine hospitalization and all the rest from the emergency room.

Results: Data was collected from 33 patients. The 84.4% of the patients were female and the remaining 15.6% men. The mean age of patients was 56.27 years with a standard deviation of 15.35. The minimum age was 29 years and maximum 85 so the range was 56. About 85% had varicous vein prior to superficial vein thrombosis, the rest appeared on healthy vein. In 30.3% of patients it was the first episode of superficial vein thrombosis, the rest had submitted at least one other before. In 6% documented history of varicous vein surgery was found. The treatment was very heterogeneous 48.5% were treated with LMWH (Low-medium weight heparin), followed by 27.3% of patients who were treated with elastic stockings. 9.1% of patients were treated with acenocoumarol and another 9.1% of them with diosmine plus hesperidin, 6.1% of patients were treated with aspirin.

Discussion: Superficial vein thrombosis is a condition that has traditionally been considered a harmless and banal entity, thus, in some cases it was not diagnosed and when it was not referred to the specialist for evaluation. In recent years some studies that have been published prove that this belief is not well supported because thromboembolism can be secondary to superficial vein thrombosis. Despite this, there are still few studies on the subject or at least not of the desired quality. The best treatment still remains unknown.

Conclusions: Superficial vein thrombosis´s real prognosis and treatment still remains unknown so we need more studies to discover it so we can give patients a best assistance.

T-3
COMPARISON OF DIFFERENT D-DIMER ASSAYS FOR THE PROGNOSIS OF PATIENTS WITH ACUTE PULMONARY EMBOLISM: FINDINGS FROM THE RIETE REGISTRY

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Objectives: We tried to assess the predictive value of D-dimer levels measured by five different assays at baseline for the 15-day outcome in acute PE.

Material and method: RIETE is an ongoing, prospective registry of consecutive patients with acute, objectively confirmed, symptomatic VTE. Patients were classified in five groups, attending to the D-dimer assay used. We considered those D-dimer assays used in at least 500 patients (Vidas D-dimer, IL Test D-dimer, STA-Liatest D-D, D-dimer plus and Turbiquant).

Results: Up to January 2012, 20151 patients with acute symptomatic PE have been enrolled in RIETE. Of these, 9073 patients underwent D-dimer testing on admission by one of the five assays chosen for the study: 3340 patients with IL-Test D-dimer, 1722 with Vidas D-dimer, 2431 with STA-Liatest D-D, 931 with D-dimer plus and 649 with Turbiquant. Multivariate analysis showed that patients with D-dimer levels in the fourth quartile determined by IL-Test D-dimer had an increased risk for major bleeding (odds ratio: 3.4; 95%CI: 1.8-6.4) and fatal bleeding (odds ratio: 6.6; 95%CI: 1.2-36), not for the other assays. D-dimer did not independently predict mortality, fatal PE (odds ratio: 1.7; 95%CI: 0.9-3.3) and overall death (odds ratio: 1.3; 95%CI: 0.8-2.0), in any subgroup.

Discussion: In this cohort with PE, D-dimer levels determined by IL-Test D-dimer at baseline were significantly associated with major and fatal bleeding during the first fifteen days of therapy. Previous reports showing an independent prognostic significance on mortality or adverse outcome are not confirmed by the present study in any of the subgroups. These results may be explained by an overshadowing of the prognostic potential of D-dimer level by the presence of other more potent recognized prognostic factors, such as presence of cancer, metastases, age or some PE characteristics.

Conclusions: Only D-dimer levels in the fourth quartile at baseline determined by IL-Test D-dimer had an increased risk for major bleeding and fatal bleeding during the first fifteen days of therapy, although we found no differences in mortality.

T-4
USEFULNESS OF TUMOR MARKERS IN SCREENING FOR OCCULT NEOPLASMS IN IDIOPATHIC VENOUS THROMBOSIS

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Objectives: Fifty percent of all cases of deep venous thrombosis (DVT) present no known risk factors, and in 10% of the cases neoplastic disease is detected in the course of the episode or in the following year. The strategy for discarding malignancy is subject to debate and can include imaging techniques and the evaluation of different tumor markers (TMs). The present study examines the usefulness of TM detection in patients with DVT in the absence of known risk factors.

Material and method: A retrospective study was made of the patients admitted to a second level hospital over a two-year period with a diagnosis of DVT of uncertain origin, and subjected to follow-up over the subsequent year. The case histories were used to analyze the usefulness of TM detection in relation to the tests that initially yielded an orientation, and the new diagnoses made. A control group of patients with idiopathic DVT without TM determination and subjected to follow-up over the subsequent year was also included.

Results: Of the 221 patients diagnosed with DVT, predisposing factors were identified in 122 (already known neoplastic disease, immobilization, hypercoagulability, etc.). Tumor marker determinations were requested according to supervising physician criterion in 52 of the 99 patients with idiopathic DVT. TM elevation was detected in 17 cases (PSA in 7 subjects, CEA in 7, Ca-12.5 in 2, Ca-19.9 in 2, and Ca-15.5 in 1 case). As a result of these findings, 9 ultrasound explorations were made, along with 7 CAT scans, 4 colonoscopies, 3 gastroscopies and two MRI studies. Two prostate neoplasms, one colon tumor, two urothelial neoplasms and one case of disseminated metastatic disease were identified. Furthermore, in the following year, one patient with CEA elevation and initially normal colonoscopic findings was diagnosed with colon cancer. In the year following the DVT episode, one gastric cancer, two bladder neoplasms and a prostate carcinoma were detected in the 47 patients not subjected to TM determination.

Discussion: In our experience, 10% of the patients with DVT in the absence of risk factors were diagnosed with neoplastic disease in the course of the thrombotic episode or in the following year. The detection of TM elevation led to many complementary explorations, many of which were of little help – though in some cases a diagnosis was established. The presence of normal TM findings does not rule out the possible appearance of tumors in the following months.

Conclusions: In patients with DVT in the absence of risk factors the detection of TM led to many complementary explorations, many of which were of little help – though in some cases a diagnosis was established.

T-7
TREATMENT AT HOME VS A SHORT HOSPITAL STAY FOR LOWER EXTREMITY DEEP VEIN THROMBOSIS (LEDVT) IN DAILY CLINICAL PRACTICE

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Objectives: Comparing LEDVT treatment without admission and with short stay admission.

Material and method: A prospective observational study during of 199 patients with LEDVT over a period of a year. Patients with known neoplasia, associated pulmonary embolism or who only received heparin were excluded. Those who were not given a clinical or ultrasound follow-up at one year (9 in the non-admission group, 16 in the admission group) or who died (0 in the non-admission group, 2 in the admission group), were excluded from the statistical analysis. leaving 133 admissions and 39 non-admissions to be analyzed. The continuous variables were analyzed using Student's t-test and the qualitative variables using the chi-squared test.

Results: The following baseline differences were found between the groups: age (admission: 62 ± 18.8, non-admission: 55.9 ± 16, p = 0.047), the Charlson Index (admission: 0.6 ± 0.9, non admission: 0.23 ± 0.5, p = 0.02) and prior symptomatic time (admission: 8.3 ± 9.6, non-admission: 20.3 ± 36.0 p = 0.047) and no differences were found in the remaining baseline parameters or treatment characteristics (sex, nº of risk factors, nº of affected areas, dimer D, prior venous thromboembolic disease, idiopathic disease, proximal/distal location, days of heparin, total days of treatment, % INR in the correct range or the use of Compression stockings). The evaluated results after one year are shown in table 1.

Discussion: The new treatment of LEDVT has made its management possible with less hospital resources, opting for short admissions or treatment without admission. We have presented our experience of non-admitted patients compared with patients admitted into a short stay medical unit, a decision that was taken in the emergency department at the discretion of the physician who treated the patients. We did not find any differences in the evolutive parameters analyzed. The deficiencies found in age and the Charlson Index could be due to the tendency to admit more elderly patients with more comorbidity.

Conclusions: 1. Admitted patients tend to be elderly and have more comorbidities. 2. There were no significant differences in the evolution of non-admitted patients compared to patients given a short admission time. 3. Most of the patients who had a short admission time could benefit from complete home treatment.

Table 1 (T-7). Results

	% admitted	% non-admitted	p
Ultrasound resolution after one year of follow-up	61	74	< 0.119
Post-thrombotic syndrome (Villalta > 4 points)	19	11	0.55
Slight hemorrhage	19	21	0.8
Severe hemorrhage	3.1	0	0.27
Relapse	6.2	5.4	0.85
Pulmonary embolism	0	0	
New neoplasia	3.1	0	0.28

T-8
MANAGEMENT OF ORAL ANTICOAGULATION WITH DICOUMARINIC DRUGS IN HOSPITALIZED PATIENTS FROM AN INTERNAL MEDICINE UNIT IN SPAIN

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Objectives: Internal Medicine (IM) patients often need the use of oral anticoagulants (OCA), more often dicoumarinics (DC), with the inconvenience of their narrow efficacy range and variable safety.

Table 1 (T-8). Relationship between therapeutic range and other factors

	No therapeutic range. N/media (%/SD)	Therapeutic range. N/media (%/SD)	p
Institutionalized	6 (3.2)	7 (7.6)	0.13
Pers/perm AF	124 (66.7)	64 (69.9)	0.75
Parox AF	29 (15.6)	15 (16.3)	
New AF	3 (1.6)	0 (0)	
AAS	18 (9.7)	8 (8.7)	0.8
Clopidogrel	5 (2.7)	3 (3.3)	0.72
Double antiplatelet	21 (11.3)	11 (12)	0.85
Bleeding	41 (22)	23 (25)	0.65
Age	79.3 (8.5)	78.8 (8.6)	0.69
Chads Vasc2	4.7 (1.5)	4.7 (1.5)	0.92
HasBleed	2.2 (0.9)	2.2 (0.9)	0.87
GFR	62.2 (27.9)	62.6 (24.6)	0.91
Number drugs	8.8 (3.6)	9.1 (3.3)	0.4

Aim: 1) To establish the characteristics of the patients discharged from an IM Hospitalization Unit treated with DC, and their indications. 2) To analyze the proportion of patients within a therapeutic range at admission and its relationship with other clinical factors.

Material and method: Observational, descriptive, retrospective study of patients admitted to the IM Unit of Son Llàtzer Hospital (Balearic Island, Spain) in 2010 and discharged from hospital in treatment with DC.

Results: Three hundred and ninety six patients were discharged in treatment with DC. One hundred and twenty five (31.5%) of them, were discharged more than once during this year, accounting for a total of 616 discharges. The total number of discharges in the Unit were 2758, thus the percentage of patients receiving DC at discharge was 22.3%. Mean age was 77.6 (SD 9.9), 311 (78.5%) had hypertension and 367 (92.7%). In 301 of 396 patients (76%) the indication was atrial fibrillation. In 117 (29.5%) the treatment was started for the first time (de novo); the remaining 279 were receiving the treatment previously to admission. 92 (33.3%) of them were within the therapeutic INR; 102 (36.6%) were below and 84 (30.1%) were above that range. The mean number of drugs taken by the patients was 8.04 (3.9). Sixty eight (17.2%) patients received also double antiplatelet therapy (aspirin and clopidogrel). Seventy three (18.4%) haemorrhages were documented. There was no clinical association between the lack of INR within therapeutic range and other clinical factors (table 1).

Conclusions: At least 1 of every 5 patients admitted to an IM unit received DC when discharging from hospital, most of them because of atrial fibrillation. Two of every 3 patients did not have an INR within therapeutic range when admitted to hospital and almost 20% of them had a haemorrhagic event. These results confirm the fact that the management of DC is difficult and unsafe.

T-9
CARDIOVASCULAR RISK FACTORS AS PREDICTORS OF IDIOPATHIC VENOUS THROMBOEMBOLIC DISEASE RECURRENCE

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Objectives: Venous thromboembolic disease (VTED) is a frequent and growing pathology, presenting with a high morbidity and mortality. Thromboembolic recurrence is one of the long-term complications. Up to 10% of patients present a thromboembolic recurrence in the next five years after the initial event, this recurrence being most frequent in those with a idiopathic VTED. The aim of this study is to analyze this possible association between cardiovascular risk factors and VTED after the cessation of anticoagulant treatment.

Material and method: This is a cohort, observational, prospective and multicentre study comprising 375 patients diagnosed by idiopathic acute VTED between 2004-2012. Patients were followed up for recurrences of thromboembolic disease after the initial event. All patients had received anticoagulant treatment for at least 3 months after initial event. In all patients, (whether or not with thromboembolic recurrence), arterial hypertension, smoking, diabetes, obesity and microalbuminuria were analized, as well as previous cardiovascular events, presenting as stroke or miocardial infarction.

Results: 375 patients were collected in Hospital de Torrejón and Hospital Universitario de Fuenlabrada in the period between 2004 and 2012. The recurrence of thromboembolism occurred in 42 patients (10.9%). Descriptive study of non-recurrence group (333 patients): They were 172 males (51.7%) and 161 female(48.3%) with an average age of 58.1 ± SD 18.2 years. 71% presented at least one of the mentioned cardiovascular risk factors. 10.5% of patients presented hypercholesterolemia, 22.8% were smokers, 40.5% had hypertension and 14.7% had diabetes. Microalbuminuria was positive in 14.2%, and obesity was present in 22. 8% of the patients, average body mass index being 25.7 kg/m^2 (SD 5.3). Previous stroke and miocardial infarction were present in 5.7% and 4.8%, respectively. Descriptive study of the recurrence group (42 patients): They were 25 males (59.5%) and 17 females (40.5%) with an average age of 66.1 ± SD 16.5 years. 83.3% presented at least one cardiovascular risk factor. 65% had hypercholesterolemia, 58.8% were smokers, 47.6% had hypertension, and 33.3% had diabetes. 45.2% of patients were obese, average body mass index being 31 kg/m^2 (SD 7.9). Microalbuminuria was positive in 76.2% of the patients. Previous stroke was present in 9.5% and previous miocardial infarction in 14.3%.

Discussion: The thromboembolic recurrence after discontinuation of anticoagulant treatment in our study was similar to that found in previous reports, though our cohort was comprised only of patients with idiopathic VTED. Recurrence percentage was higher in males than in females, as previously described. In the recurrence group 83.3% of the patients had at least one cardiovascular risk factor, while in non-recurrence group this percentage was 71% (p = 0.40); In the univariate analysis we found that smoking (p = 0.001), hypercholestrolemia (p = 0.002), diabetes (p = 0.002), obesity (p = 0.002) and positive microalbuminuria (p = 0.001) had statistical association with recurrence. On the other hand, age and

hypertension did not show to be related to recurrence. No relation was found between previous cardiovascular events and idiopathic thromboembolic disease recurrence.

Conclusions: Patients with idiopathic VTED present a high percentage of recurrence after discontinuation of anticoagulant treatment. We found a significant association between recurrence and smoking, obesity, diabetes, hypercolesterolemia and microalbuminuria. We believe more clinical and epidemiological studies are needed to confirm these findings, and to identify more possible factors linked to VTED recurrence, in order to establish the optimal duration of anticoagulant treatment.

T-10
FREQUENCY AND CLINICAL FEATURES OF PATIENTS WITH DELAYED DIAGNOSIS OF ACUTE PULMONARY EMBOLISM

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Objectives: The aim of this study was to describe de frequency of delay or misdiagnosis of acute pulmonary embolism (PE) in the Emergency Department (ED) and to identify clinical predictors of this situation for defining the clinical profile of these patients.

Material and method: This was a retrospective observational study performed at two University affiliated Hospitals. We retrospectively evaluated the clinical charts of patients who were hospitalized due to an acute PE diagnosed by chest computed tomography from April 2008 to December 2011. The records were analyzed in terms of age, sex, risk factors for PE, clinical presentation, laboratory findings, radiologic and electrocardiographic results. We categorized each patient into one of three groups: 1. ED diagnosis: PE was diagnosed by chest CT that was ordered while the patient was still in the ED. 2. Delayed diagnosis: PE was diagnosed by chest CT ordered after the patient had left the ED (the predefined study protocol required that all patients in this group have one predefined symptom consistent with PE written on the ED chart) and 3. Patients who were sent home with a wrong diagnosis and returned to the ED with the same complaints and were diagnosed of PE.

Results: 139 patients were included, 69 patients (49.6%) were male. Mean age was 66.8 ± 19.1 years. 93 patients (67%) were diagnosed correctly at initial presentation. 27 patients (19.4%) were admitted to hospital and had a delayed diagnosis and 19 patients (13.6%) were sent home with a wrong diagnosis. The most frequent wrong diagnoses in patients who were admitted to hospital were: respiratory tract infection/pneumonia (25.9%), heart failure (18.5%) and COPD exacerbation (15.9%). The presence of COPD (37 vs 4.3%), cough (37 vs 14.2%) and the absence of signs of DVT (3.8 vs 20.6%) were univariate predictors of delayed diagnosis in this group of patients. The presence of COPD was the only independent factor associated with delayed diagnosis in the multivariate analysis (OR: 12.7 95%CI 6.5-15.2; $p < 0.05$). Patients who were sent home had an initial wrong diagnosis of respiratory tract infection/pneumonia (31.6%), mechanical chest pain (15.8%), asthma or COPD exacerbation (30.6%) and heart failure (15.3%). This group of patients was significantly different in gender (68% women vs 45%), absence of dyspnea (33.8 vs 80.2%), fever (31.5 vs 10.8%), pleuromechanic chest pain (36.8 vs 1.9%) and absence of signs of DVT (0 vs 20.6%) with statistical significance in the univariate analysis. The absence of dyspnea (OR: 9 95%CI 4.3-12.6; $p < 0.05$) or signs of DVT (OR: 10.7 95%CI 5.8-14.2; $p < 0.05$) were independent predictors of misdiagnosis in this group of patients in the multivariate analysis.

Discussion: Prompt recognition of pulmonary embolism remains a challenge. Despite advances in diagnosis, delays or misdiagnosis of acute PE are still common. Factors associated with this situation are not well defined. We found a high incidence of delayed or missed diagnosis (33%), which is similar to previous reports. We also found that patients who are sent home with a wrong diagnosis are more frequently women without manifest symptoms of PE while patients who are admitted to Hospital and are diagnosed of PE after they leave the ED have unespecific symptoms and comorbidities like COPD.

Conclusions: In this multicenter study, the diagnosis of PE was frequently delayed (one third of patients). There are some clinical characteristics that are associated with this delay in diagnosis which are different depending on if the patient is sent home or is admitted to hospital.

T-11
AGE ADJUSTED D-DIMER CUT-OFF VALUE VS CONVENTIONAL METHOD: A RETROSPECTIVE STUDY

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Objectives: Levels of D-dimer increase with age, thus reducing its sensibility for pulmonary embolism (PE) diagnostics in older patients and making it a less useful tool for the early diagnostics of PE in the elderly. Recently, some authors have postulated an age-dependent new value of D-dimer (positive D-dimer: age × 10 in older than 50 years) that should increase the sensibility without losing specificity.

Material and method: All patients in which we performed a high-resolution computerized tomography (CT) to exclude PE during the year 2010 and which had the D-dimer values available were included in this retrospective study. The D-dimer examination was made with the quantitative method Innovance. We registered clinical data, age and the clinical probability of PE according to the scale of Wells. Patients were classified according to this probability and those with non-high probability were stratified with two D-dimer cut-off values (age × 10 in older than 50 years compared to the standard cut-off value, expressed in micrograms/milliliter). We have calculated and compared the sensitivity (S), specificity (E), positive predictive value (PPV) and negative predictive value (NPV) with both cut-off values. Statistical analysis was performed using SPSS 18.0.

Results: A total of 160 CT were performed in order to rule out PE. D-dimer was determined in 125 patients. Of these 125, only 6.4% had a high clinical probability, leaving 117 patients with low or intermediate probability (114 older than 50 years). 29.6% (37) of 125 CT performed were positive for EP. The distribution of patients according to the standard cut-off value and the age × 10 (in older than 50 years) is shown in Tables 1 and 2. With the standard cut-off value, we had: S 100% E 3%, PPV 28%, NVP 100%. With the cut-off age × 10, we had: S 100% E 8%, PPV 29%, NPV 100%. We could not appreciate any statistically significant differences between these 2 methods.

Discussion: We observe that our S and NPV are equivalent or better and the E and PPV are significantly lower (35-50% and 50-70%) when compared to the values that we found in the literature. These results should be taken with caution due to the small number of patients with values under the cut-off point value with the two methods that we used in our study.

Conclusions: Our series does not find differences in the S, E, PPV and NPV between both cut-off values. However, with the new method, we have a higher number of healthy patients with D-dimers values under the cut-off point, and this could have avoided 4 (3.2%) chest CT's when compared to the fixed cut-off method. It would be

convenient to increase the cohort size in order to reach statistically significant conclusions.

Table 1 (T-11). Standard cut-off value

	EP confirmed	EP discarded
D-dimer > 500	31	83
D-dimer < 500	0	3

Table 2 (T-11). Age × 10 (in older than 50 years) cut-off value

	EP confirmed	EP discarded
D-dimer > age × 10	31	76
D-dimer < age × 10	0	7

T-12
VENOUS THROMBOEMBOLIC DISEASE (VTD) IN A COHORT OF PATIENTS ADMITTED TO A PALLIATIVE CARE UNIT

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Objectives: The Internal Medicine Department of our hospital has a Palliative Care Unit since 2002. Our aim is to analyze the characteristics of patients admitted to this Unit with the diagnosis of venous thromboembolic disease (VTD).

Material and method: Descriptive and retrospective study by revision of clinical records of patients admitted to the Palliative Care Unit with a diagnosis of VTD between November 2003 and December 2011. Variables recorded were age, sex, thrombus location, main symptom at admittance, predisposing factors, mean stay, type of discharge, survival time, VTD recurrence and hemorrhagic complications. An Access data base was created and SPSS was used for analysis.

Results: A total of 117 episodes in 111 patients (incidence of 6%) were identified. Mean age was 68.2 years (SD 10.9) with 66.7% males. VTD was the main diagnosis at admittance in 80 cases (68.4%). The diagnosis of VTD was made during hospitalization in 8 patients (6.8%) and 18 (15.4) had had a recent admittance. Pulmonary embolism (PE) was also present in 59 (50.4%) patients, deep venous thrombosis of the lower extremities in 47 (40.2%), thrombosis of the vena cava in 3 (2.6%) and both PE and DVT in 4 (3.4%). Related symptoms were present in 35 patients with VTD, 59.3% with PE, and 44 (75.3%) with DVT. Dyspnea (72.8%) and pain (58.6%) were the most frequent complains in each group. All patients had neoplasic disease being in order of frequency lung (25.2%, n = 28), colorectal (13.5%, n = 15), pancreas (9%, n = 10) and stomach (8.1%, n = 9). Chemotherapy was active in 56 (47.9%) patients and immobilization was considered the predisposing factor in 17 (14.5%). Mean stay was 6 days (p25-p75: 4-8) for PE and 5 days (p25-p75: 3-8.2) for DVT. In-hospital mortality was 25.6% (n = 30) while 64.1% (n = 75) went home and 10.3% (n = 12) to other centers. Anticoagulant treatment (low molecular weight heparin) was administered to 48 (43.24%) patients. Only in 2 cases placement of a filter in the vena cava was necessary and 5 (4.3%) mayor hemorrhagic events were recorded. There were 14 recurrences (12%): 3 PE and 11 DVT.

Conclusions: Incidence of VTE is 1.6 per 1.000/year and in our study it reaches 6.08% of admittances, a rate that can be attributed to the 100% of incidence of concomitant neoplasic disease in our patients. VTD was asymptomatic in 32.4% of our cases and as is the case with other published works, colorectal and lung were the most frequent thrombi generating tumours. Thromboembolic prophylaxis must be taken into account in these patients if there are other risks factors, especially after surgery and when under active chemotherapy. The decision to treat patients with cancer must be individualized and is especially difficult in patients under palliative care which should be considered not to initiate anticoagulation in terms of non therapeutic advantage (risk of bleeding, limited survival, not planned oncologic chemotherapy), not benefit palliative (eg Alleviate dyspnea) and unreasonable burden of anticoagulant treatment (painful injections, need for follow-up visits…).

T-13
SAFETY OF CHRONIC ANTICOAGULANT THERAPY OF ABDOMINAL VISCERAL VENOUS THROMBOSIS: RETROSPECTIVE STUDY OF TWENTY-FIVE CASES

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Objectives: Anticoagulant therapy duration in abdominal visceral veins thrombosis (AVVT) is not well-defined. For this reason, we report the safety and effectiveness of prolonged chronic anticoagulant therapy in the treatment of AVVT, independent of the site of it and the underlying conditions.

Material and method: We retrospectively reviewed twenty-five cases of AVVT that were diagnosed and treated with chronic anticoagulant therapy in our Unit from 1996 to the date.

Results: Twenty-five cases of AVVT were analysed [12 men (48%) and 13 women (52%)]. The mean age at diagnosis was 53.3 ± 19.2 (45.4-61.2) years. The main symptom at presentation was abdominal pain that was present in 18 patients (72%). Portal-splenic-mesenteric (PSM) axis was the most frequent site (18, 72%) but other locations were present [renal vein (6, 24%) and ovaric vein (1, 4%)]. In 14 patients a risk factor was identified. Cancer (7, 28%) was the most frequent associated risk factor and the diagnosis of the tumour was established after the thrombotic event in all cases. The presence of thrombophilia was studied in 22 patients. Inherited procoagulant mutations were found in 6 cases (27.3%) (1 factor V Leiden, 4 prothrombin gene mutation G20210A, 1 other) and 3 patients presented more than one (13.6%). Three patients were diagnosed as having an antiphospholipid syndrome (13.6%). Among patients with portal vein thrombosis, four (28.57%) of them developed cavernomatous formation and esophagogastric varices grade I of Los Angeles classification but they do not showed neither progression or bleeding with chronic anticoagulant therapy. Low molecular weight heparin (LMWH) was the elected acute anticoagulant therapy in all cases (23/23; 100%). Two patients were not anticoagulated because of active haemorrhage and poor prognosis of a metastatic cancer. Chronic anticoagulation was maintained in the rest of cases (LMWH 5, 21.7%; acenocumarol 18, 78.3%). In one case anticoagulant treatment was discontinuated by patient´s decision and recurrent thrombosis in the same site was developed. Rethrombosis was solved after anticoagulant therapy reinitiation. Radiological control tests showed no progression or partial resolution of the thrombosis in 3 cases (17.5%) and a complete one in 12 cases (70.6%). Only one patient (5.9%) developed radiological worsening and it was associated with the progression of a diffuse hepatocarcinoma. All patients remain asymptomatic after treatment beginning without rethrombosis and/or major bleeding after a median followed-up period of 43.7 ± 58.9 (19.3-68) months.

Discussion: Our study shows that chronic anticoagulant therapy is a safe therapy in the treatment of AVVT, despite the existence of

procoagulant conditions, its location or the presence of signs of acuticity or chronicity. Furthermore, when portal hypertension and/or cavernomatous formation were present, anticoagulant therapy was associated with a clinical stabilization of these complications. The presence of esophagogastric varices was no associated with digestive bleeding. That is why we consider that it is not a limitation for prolonged anticoagulation. However, a careful assessment of the risk of bleeding must be performed before starting the therapy.

Conclusions: Our experience suggests that prolonged anticoagulant therapy is safe in the treatment of AVVT and it is not related to major bleeding. As a result, we think that anticoagulant therapy should be started and maintained for an extended period if there are no high risk-bleeding factors.

T-14
DEGREE OF CONCORDANCE IN THE THROMBOEMBOLIC PROPHYLAXIS PRESCRIBED IN AN EMERGENCY SERVICE

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Objectives: Venous thomboembolism (VTE) is considered the main preventable cause of death in hospitalized patients and an important health problem. The PRETEMED clinical practice guide on prevention of VTE in medical patients allows the establishment of recommendations according to combined risk factors. The objective of the study is to assess the degree of concordance in the thromboembolic prophylaxis prescribed in an Emergency service according to the PRETEMED guide.

Material and method: Observational, longitudinal and prospective study carried out from September 2011 to May 2012 in an Internal Medicine unit. Inclusion criteria were: adult patients from an Emergency service and the exclusion criteria: patients receiving one of the habitually prescribed drugs for thromboprophylaxis but with an exclusively therapeutic intention. The following variables were collected: demographic data, VTE risk factors, hospitalisation diagnosis and antithrombotic prophylaxis prescribed in the Emergency service. The Internal Medicine pharmacist compared the prescribed prophylaxis with the recommended by the PRETEMED 2007 guide and assessed concordance.

Results: 73 patients were included (54.8% male). Mean age was 81 years (minimum 25, maximum 105 years). The most frequent diagnosis was respiratory disease (36.4%) and 60.3% of patients were classified as high risk for VTE. The most used prophylactic dosage was enoxaparin 40 mg/24h sc (45.2% of patients), followed by enoxaparin 20 mg/24h sc in 15.1% of patients (of these, 54.5% were at low risk for developing VTE according to clinical judgement, 36.4% displayed a creatinine clearance lower than 30 ml/min and 9.1%, suspicion of haemorrhage). 34% of the prophylaxis was not in agreement with that established in the PRETEMED guide. Reasons for non concordance were: no indication for mechanical/pharmacologic prophylaxis (11%), prophylaxis omission (16.4%), no indication for pharmacologic prophylaxis but mechanical (11%) and overdose (1.4%). 23% of patients classified as high risk for VTE were not prescribed thromboprophylaxis in the Emergency service.

Discussion: Studies show that between 5% and 10% of all inhospital deaths are directed result of pulmonary embolism. Randomized clinical trials over the past 30 years provide irrefutable evidence that primary thromboprophylaxis reduces DVT and pulmonary embolism (PE), and there are studies that have also shown that fatal PE is prevented by thromboprophylaxis. PE is the most common preventable cause of hospital death and the number-one strategy to improve patient safety in hospitals. Almost all hospitalized patients have at least one risk factor for VTE, and approximately 40% have three or more risk factors. Unfortunately, despite the hundreds of randomized trials demonstrating the benefit of thromboprophylaxis and > 20 practice guidelines recommending the use of thromboprophylaxis since 1986, low adherence with evidence-based thromboprophylaxis compromises the optimal benefits of this key patient safety practice. A UK survey suggested that 71% of patients assessed to be at medium or high risk of developing deep vein thrombosis did not receive any form of mechanical or pharmacological VTE prophylaxis.

Conclusions: A high number of patients do not receive adequate thromboprophylaxis on admission, probably because physicians undervalue the risk for VTE. For this reason the development of prescription support tools to aid prescription and warn physicians on individual VTE risks is of paramount importance.

T-15
IS AN INITIAL MINIMUM 5-DAY TREATMENT WITH HEPARIN NECESSARY IN LOWER EXTREMITY DEEP VEIN THROMBOSIS (LEDVT)?

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Objectives: To assess the follow-up of patients administered with less than 5 days of heparin as their initial DVT treatment.

Material and method: A prospective observational study of LEDVT over one year to compare the results of the treatment of 17 patients who received less than 5 days of heparin with the group of 207 who received it for at least 5 days. Patients with known neoplasia or who only received heparin were previously excluded. Those who did not undergo clinical or ultrasound follow-up at one year (2 in the group with < 5 days (11%) and 31 (15%) in the group of at least 5 days) or who died (0 in the group < 5 days, 3 (1.7%) in the group of at least 5 days), were excluded; leaving 173 for the analysis with at least 5 days of heparin and 15 with < 5 days. The continuous variables were analyzed using Student's t-test and the qualitative variables using the chi-squared test.

Results: No differences were found in the baseline or treatment characteristics of both groups (sex, age, mean stay, nº of risk factors, clinical time, nº of affected areas, Charlson Index, D-dimer, prior thromboembolic venous disease, idiopathic disease, proximal/distal location, associated pulmonary embolism, total days of treatment,% of INR in the correct range or the use of compression stockins). The results after a year are shown in table 1.

Table 1 (T-15). Results

	5 or > 5 days%	< 5 days%	p
Post-treatment ultrasound resolution	52	46	0.89
Post-thrombotic syndrome (Villalta > 4 points)	16.8	13.3	0.9
Slight hemorrhage	17.8	26.7	0.39
Severe hemorrhage	3	0	0.49
Relapse	7.5	0	0.27
Pulmonary embolism	0	0	

Discussion: Since the beginning of the 90's, based on studies of non-fractionated intravenous heparin, a minimal initial treatment period of at least 5 days with heparin followed by oral anticoagulation has been widely recommended for the treatment of LEDVT with both therapies being initiated on the same day. Since the introduction of this combined treatment, a reduction in this period has not been contemplated. However, in daily practice, whether due to error or because of reaching an excessively high INR during the first few days, heparin has been suspended in some patients before the fifth day. We decided to assess the consequences of this situation and to compare the follow-up of these patients with those who were maintained on standard treatment for at least 5 days, and no differences were found between the groups. Although the treatment group of < 5 days is too small to reach definitive conclusions it suggests that large registries could be used to evaluate this situation and confirm the same results through a clinical trial.

Conclusions: 1. The 3-4 days of initial heparin treatment could be enough, provided oral anticoagulation is initiated simultaneously and 2-3 INR is achieved quickly. 2. Reaching an adequate INR could be more important than the days heparin is administered, except for the first 2 days of dicumarinic procoagulant tendency.

T-16
MALFORMATIONS OF INFERIOR VENA CAVA AND DEEP VEIN THROMBOSIS

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Objectives: The abnormalities of inferior vena cava (IVC) constitute a large group of malformations and anatomic variants, usually called "IVC agenesis". Sometimes, these may be confused with abdominal tumoral masses or lynphadenophaties, so an invasive vascular technique is necessary to reach de right diagnosis. The flow stasis and turbulences generated in venous system condition thrombotic phenomenous, especially in the iliac system of young patients, though most of them never give symptoms and provide a casual diagnosis (up to 69%). It is described its association with other vascular malformations, but also with visceral anormalities such as pulmonary dysgenesis and polysplenia. Treatment is controversial with insufficient evidence. In most cases, lifelong anticoagulation is recommended to avoid recurrent thrombosis. The malformation is usually not surgically repairable. Our objective is to describe all cases of IVC malformations and deep vein thrombosis (DVT) detected at the Fuenlabrada University Hospital (FUH).

Material and method: Retrospective analysis of cases of IVC abnormalities and DVT detected in the Internal Medicine Service of FUH, since its opening in 2004.

Results: We detect three cases during this period: The first one is a smoker 26 years old men with a cerebral cavernoma that bled one year earlier. He enters for groin pain and doppler indicates extensive DTV of left femoro-iliac axis to IVC. The angioTC detects IVC hypogenesis and cerebral MR shows the presence of cerebral cavernoma and a cerebellar venous angioma. The thrombophylic study was not abnormal. The patient undergoes surgery of cerebral cavernoma three months later and he remains anticoagulated since then. The second is a 38 years old man with operated right temporal lobe epilepsy and two previous episodes of DVT with known homozygous mutation of MTHFR 677T (normal homocysteine levels) and anticoagulated indefinitely. He enters again becasue of extensive femoro-popliteal DVT. Hypoplasic IVC is incidentally detected in a cavography while trying to place vein cava filter that finally was impossible. Months later, during another admission to the hospital due to pneumonia, we detect megaesophagus and esophageal achalasia. The last one is a healthy 21 years old woman with mediastinal widening detected on a conventional chest radiography performed during the study of epigastric pain. Chest CT showed IVC malformation with persistance of supra and subcardinal veins. No other malformations were detected in this case. She never had episodes of thrombosis. Her doctor indicates thromboprophylaxis measures at risk situations.

Conclusions: We must consider IVC malformations in those young patients with DTV, especially when they occur in the iliac system. These malformations are usually associated with another vascular and visceral abnormalities, as showed in our patients. We wonder if it is cost-effective to systematically investigate IVC malformations in these cases because they are generally non-repairable deffects, although it may be useful to decide the anticoagulation duration.

T-17
INFERIOR VENA CAVA CONGENITAL ANOMALIES-ASSOCIATED DEEP VEIN THROMBOSIS: 4 PATIENTS AND REVIEW OF THE LITERATURE

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Objectives: Inferior vena cava agenesis (IVCA) is a rare congenital abnormality, with an estimated prevalence of 0.0005-1% in the general population, found in almost 5% of patients under 30 years old with unprovoked deep venous thrombosis (DVT). Only 72 IVCA cases have been described in th English literature. We present 4 cases of clinically extensive DVT associated with IVC thrombosis in patients with unknown IVCA.

Material and method: We revised medical histories of the 30 patients with criteria for IVC thrombosis between 1990 and 2012 at our tertiary-care university hospital, which serves a population of about 600,000 inhabitants, and selected only those with IVC malformations (4 of 30). They underwent thrombophilia screening. Acquired risk factors for DVT and family histories were always sought. A follow-up period of at least 12 months after discharge was performed.

Results: Patient 1: a 45 year-old computer engineer presented with a 1-week history of lower back pain, edema of lower extremities and dyspnea. He used to cycle in his spare time. Full-body CT scan revealed bilateral pulmonary embolism (PE), IVC thrombosis (IVCT), agenesis of suprarenal IVC and horseshoe kidneys. Doppler ultrasound showed DVT of both iliac and femoral veins. Thrombophilia blood testing highlighted heterozygosity for a factor V Leiden (G169A) mutation. The patient was treated with high-dose unfractionated heparin followed by oral anticoagulation. Subsequent IVC Doppler showed poor resolution of IVC thrombosis 1 year later. Patient 2: a 26 year-old waiter was admitted with a 10-day history of abdominal pain (located in the lower right side) and fever. Abdominal CT-scan revealed a right retroperitoneal mass (possibly lymphoma). Abdominal MRI angiography showed thrombosis of IVC from iliac to renal veins and saccular dilatations of vessels coming from IVC (congenital malformation of IVC). CT-guided mass biopsy could not find tumoral cells. Iliocavography was performed to apply local thrombolysis. The patient works and does his normal life 2 years later (with oral anticoagulation). Patient 3: a 48 year-old postman suddenly suffered pain, edema of right low extremity and fever 2 days before admission. There was neither dyspnea nor chest pain but CT scan showed bilateral PE. Doppler ultrasound revealed right iliac vein thrombosis. Both Doppler of IVC and abdominal MRI angiography showed IVCT and agenesis of suprarenal segment, with left renal vein thrombosis. He was treated with high-dose unfractionated heparin, and oral anticoagulation for 52 months, with no morbility. Patient 4: a 43 year-old female

cashier developed high temperature, both lower limbs edema and right abdominal flank pain 14 days before diagnosis. Doppler ultrasound showed both iliac veins and IVC thrombosis. CT scan revealed IVC trombosis and intrahepatic segment agenesis. She received oral anticoagulation for 6 months and has continued with acetylsalicylic acid for the last 15 years.

Discussion: In the present study, as in literature, we find that most patients are male under 50 years old. Compensatory drainage thru the thoracic-lumbar, pelvic, and abdominal veins can cause symptoms prior to those typical of DVT of the lower extremities. Although some authors believe cava malformation alone can provoke DVT, all patients should undergo thrombophilia screening. Recurrent thrombotic occlusion occurs only in patients whose anticoagulation treatment is suspended.

Conclusions: We should suspect the presence of IVC malformation in patients < 30 years with DVT of the lower extremities when the iliac veins are affected. No precise duration of anticoagulation has been established.

T-18
THROMBOPROPHYLAXIS OF VENOUS THROMBOEMBOLIC DISEASE IN ACUTE MENTAL DISORDERS

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Objectives: To assess the level of fulfilment of thromboprophylaxis in acute psychiatric disorders admitted in our psychiatric acute unit, analyzed the risk factors and the better way to improve.

Material and method: Descriptive, observational and transversal study carry on one day of may 2012 in Acute Psychiatric Unit of our hospital. We analyzed all patients admitted that day and review intake of antipsychotics, other risk factors, intake of chronic anticoagulants and acute mental disorder and the level of fulfilment of thromboprophylaxis.

Results: In 61 patients admitted 7 May 2012, 52% were women with mean age of 44 years old. 4.9% had a previous VTD and only 1.6% was a chronic anticoagulation user. 88% use antipsychotics and 36% antidepressant. 8.2% were immobilized by agitation. The mainly diagnosis were acute psychotic disorder, bipolar disorders and depression and the admission cause was behavior disorder and psychotic outbreak. The mainly antipsychotics use during the admission were atypical: olanzapin, risperidon and quetiapin. A 26.2% of patients had indication of thomboprophylaxis, whom only 37.5% really made. Exists a 56% of patients with indication whom not realized tromboprophylaxis.

Conclusions: In our acute psychiatric unit, there are a low level of thromboprophylaxis despite of the indication is low too.

T-19
ASSESSING VENOUS THROMBOEMBOLISM RISK AND PROPHYLAXIS IN PATIENTS ADMITTED TO AN INTERNAL MEDICINE WARD OF A UNIVERSITY HOSPITAL

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Objectives: Venous thromboembolism (VTE) is a major cause of preventable in-hospital death; according to the ENDORSE study, a large proportion of at-risk patients is not receiving recommended prophylaxis. The goal of this study was to assess the prevalence of VTE risk in acutely ill medical patients and to determine the adequacy of VTE prophylaxis received.

Material and method: Patients aged 18 or older, admitted to an internal medicine ward of a Portuguese university hospital, were assessed on the basis of chart review, on a preset day (5th April 2012). VTE risk and prophylaxis were evaluated according to Caprini's VTE Risk Assessment Tool and to 2004 American College of Chest Physicians (ACCP) guidelines.

Results: From 159 inpatients studied, 91 fulfilled inclusion criteria (56% male, median age 74, range [24-91]). 88 patients were judged to be at Caprini's risk for VTE (21.6% moderate, 26.0% high, 53.4% highest risk); from these, 64 (72.7%) were under VTE prophylaxis (pharmacological or not), which was according to ACCP recommendations in only 70.3% of the cases. Considering all at-risk patients for VTE (n = 88), 43.2% (n = 38) were not under recommended prophylaxis: in 21.6% (n = 19) of the cases prophylaxis was absent and in 21.6% (n = 19) it was inadequate (incorrect posology 57.9%, non-adjustment to renal function 10.5%, presence of contraindications 21.1%, non-pharmacological measures when pharmacological were indicated 10.5%). The major pharmacological prophylaxis used was low molecular weight heparin (98.4%). None of the patients in which anticoagulation was contraindicated received non-pharmacological measures.

Discussion: Scarce data available on VTE risk and prophylaxis in Portuguese studies reinforce the relevance of this assessment. In this study, almost all patients were at Caprini's risk for VTE - these results are consistent with the finding that 5-10% of in-hospital deaths are due to thromboembolic events. In spite of numerous published guidelines addressing this issue, the proportion of at-risk patients under correct prophylaxis is still lower than it would be expected. Our series found that only 56.8% of the patients received adequate prophylaxis according to ACCP guidelines. Possible explanations for these results may include the underestimation of VTE risk, which can lead to underprescription of prophylaxis, and the non-consideration of all clinical factors when prescribing pharmacological or non-pharmacological measures. The type of pharmacological VTE prophylaxis found in this study is in agreement with other European series.

Conclusions: Almost all patients hospitalized for acute medical illness were at risk for VTE but there was still a considerable proportion of them in whom the prophylaxis received was not according to ACCP recommendations. These results emphasize the need to reassess and optimize daily clinical practices, ensuring that at-risk patients receive appropriate VTE prophylaxis, in order to decrease VTE related in-hospital morbidity and mortality.

T-22
INFERIOR VENA CAVA FILTERS: A RETROSPECTIVE STUDY

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Objectives: To review a 12-year single-center clinical experience with inferior vena cava filters. To determine, with a retrospective study, the characteristics of patients undergoing implantation of an inferior vena cava filter, indications and complications of this procedure and its effectiveness along 12 last years in our center.

Material and method: All filter placements were performed at our hospital (3rd level. 600 beds). We identified those patients who underwent inferior vena caval filter placement during 1997-2009 in order to prevent pulmonary embolism. Caval filters were placed by vascular radiologists in an angiography procedure room, with the use of imaging guidance. Inferior vena cavography was performed prior

Table 1 (T-22). Underlying disease at the time of venous thromboembolic event

Disease	Neoplasm	Diseases of the blood	Diseases of the digestive system	Diseases of the digestive system	Injury	Diseases of the nervous system	Total
N. of events	39	2	10	5	15	7	78

Table 2 (T-22). Indications for filter placement

Contraindication to coagulation (41 patients)	53%
Complication of anticoagulation (18 patients)	23%
Failure of anticoagulation (11 patients)	14%
Added coagulation (8 patients)	10%

to and following filter insertion with Seldinger technique to discard congenital anomalies of the vein and assess diameter and location of renal veins. The aim was to place the filter just below the renal veins. We analyzed demographic data, clinical characteristics of the patients including the underlying disease, nature of thromboembolic events. The type of filter, indications for the procedure, effectiveness and complications were also analyzed. Computations were performed with the use of statistical software (SPSS 12.0).

Results: During a 12-year period, 78 patients were referred for placement of a caval filter. 44.8% (35 of 78) were female with a mean age of 68.2 years. For male patients (55.2% 43 o 78 patients), the mean age was 63.4 years. Table 1 shows the underlying disease at the time of venous thromboembolism. The largest group was neoplasms (39 [50%] of 78) and other large groups were injury (15 [19.2%] of 78) and cardiovascular diseases (10 [12.8%] of 78). Contraindication to anticoagulant therapy was the most common reason for filter placement. Complication of anticoagulation, failure of anticoagulation and added protection were the others indications. Several types of permanent and temporary filters were implanted. All of them were in the infrarenal cava, close to the point of entry of the renal veins by percutaneous insertion. No major complications occurred during or immediately after the procedure, only hematomas at the puncture site, without hemodynamic impact. Imaging techniques in the follow-up of patients included conventional abdominal radiography and CT. The prevalence of postfilter pulmonary embolism was 1.28% that occurred within 48 hours after filter placement and it led to the patient's death. 10 patients died in the early months of filter placement. Neoplasia was the cause of death in 5 of them, and we could not establish the cause of deaths in other patients because of the confluence of factors as advanced age, poor general condition and severe comorbidity (diabetes, brain strokes, heart disease…). The prevalence of caval thrombosis below the filter was 2.56%. During the follow-up filters did not show significant migration, fracture o deformity.

Conclusions: Inferior vena caval filters provide protection from life-threatening pulmonary embolism with minimal morbidity but the procedure carries risk of serious complications. In recent years there has been a remarkable growth in the number of filter implantations due to the increased incidence of venous thromboembolism and the emergence of temporally filters that allow recovery after a variable period of time.

T-23
PULMONARY THROMBOEMBOLISM IN PATIENTS WITH PREVIOUS HISTORY OF VENOUS THROMBOEMBOLISM

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Objectives: Determine prothrombotic risk factors in patients with diagnosis of pulmonary thromboembolism (PTE).

Material and method: This descriptive, retrospective study was done at the University of Salamanca Clinic Hospital in which 846 patients with diagnosis of PTE were analyzed from January 2009 to December 2011. Of 846 patients 93 were found with previous history of venous thromboembolism (VTE), risk factors for prothrombotic state were analyzed in those with recurrent thromboembolic disease, also signs and symptoms and the WELLS scale were determine during the beginning of the new episode.

Results: Of the 846 patients with diagnosis of PTE, 93 (10.99%) had previous history of VTE and were included in our study. 30 (32.2%) patients had risk factors for prothrombotic state; 20 patients presented with previous history of cancer and 11 presented with history of active malignant neoplasm. Solid tumors were more frequent (90%) meanwhile hematologic processes were only 10%. Primary hypercoagulable state was found in 7 (23.3%) patients and 3 (10%) cases presented history of autoimmune disease. The mean age was 73.2 and the sex distribution was 54.8% males and 45.2% females. At the moment of the acute PTE episode, 6 patients presented a high risk for PTE according to the WELLS scale, 51 patients had intermediate risk and 36 had low risk for PTE. The most frequent symptom found was dyspnea (68.8%), followed by chest pain (35.5%) and cough (15%); tachycardia was present in 23.6% of the cases at the moment of the diagnosis. 11 patients were receiving anticoagulant treatment with aceno-coumarol; 3 were in therapeutic range, 7 below the therapeutic range and 1 patient presented blood levels over the therapeutic range. 3 patients were treated with low molecular weight heparin at therapeutic dose. In 20 patients DVT was confirmed with Doppler ultrasound, of this 20 patients 35% of them did not presented any signs or symptoms of thrombosis.

Discussion: The incidence of DVT and TEP in hospitalized patients is very high. Studies show a mean annual incidence for DVT of 48 per 100,000 and for PTE 23 per 100,000. The exact incidence and mortality is unknown due to the lack of good screening and confirmatory diagnostic methods for the diagnosis of these diseases. Advanced age is the most important risk factor (the incidence of VTE exponentially in ages above 50 years). Previous history of VTE doubles or triples the risk for a new episode even in the absent of other risk factors. Other clinical entities considered risk factor for VTE are: cancer (increasing the risk if there is evidence of tumor spread and the patient is receiving chemotherapy), primary and secondary hypercoagulable states, traumas with or without bone fracture, congestive heart failure, myocardial infarction, cerebrovascular disease, sepsis, and others.

Conclusions: A high percentage of patients with pulmonary thromboembolism had previous history of venous thromboembolism. The most important risk factors are: age, history of malignant neoplasm and hypercoagulable states. The WELLS scale serves as an important diagnostic tool for PTE during the clinical suspicion in the acute episode. In patients with history of VTE and high risk factors, they should receive the option of indefinite anticoagulant therapy.

T-24
ACUTE PULMONARY EMBOLISM: DIAGNOSIS RECOGNITION AND CLINICAL OUTCOME

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Objectives: Acute pulmonary embolism (PE) remains a challenging diagnostic problem since it mimics other cardiopulmonary disorders. Although clinical and laboratory data are usually performed, computed tomographic pulmonary angiography (CTPA) remains the preferred imaging test for diagnosing PE. The purpose of this study was to study the prevalence of acute PE in patients suspected of having acute PE in a tertiary university hospital center (CHLC). Secondary end-point was to study possible relation between demographic, clinical and laboratory data and clinical outcome.

Material and method: A retrospective review was performed on a consecutive series of 183 patients that underwent CTPA assuming a suspected acute PE diagnose; both inpatient and outpatient were included between January 2008 and December 2011. Imaging was performed using multi-detector scans (GE and Toshiba) with 8, 16 or 64 detectors. PE was defined as pulmonary artery filling defect within a segmental or larger vessel on CTPA. Demographic and clinical characteristics were analyzed as well as laboratory tests. Follow-up data were collected on medical files or by telephone interview with patients or relatives. SPSS 17th edition was used to perform statistic analysis.

Results: Over a 4-year period, 183 patients underwent CTPA for possible acute PE, a total of 44 (24.0%) cases were positive. Mean PE rates were higher for women and patients over 65 years old, with 32 (72.7%) and 31 cases (70.5%), respectively. Bilateral PE was the most common event being present in 24 patients (54.5%) and right PE was seen in 17 patients (38.6%). Dyspnea was the most frequent initial symptom, present in 16 patients (38.1%). Tachypnea was seen in 17 (48.6%) patients at presentation and tachycardia in 13 (37.1%). Hemoptyses were not found in this population (0%) and body temperature was normal in almost every patient (95.5%). Screening testing with D-dimers was negative in only one patient (2.6%). C-reactive protein (CRP) and lactate dehydrogenase (LDH) serum levels were increased in 39 (88.6%) and 30 patients (68.2%), respectively. No relation was found between side of PE and sex, age and laboratory data. The 30-day all cause mortality was 53.8% (7/13). At 12 months of follow-up, median overall survival was 70.5% (31/44).

Conclusions: PE is a clinical relevant diagnosis with high mortality, affecting women and older people more often. The initial presentation of tachypnea, tachycardia and elevated PCR, LDH and D-dimers on admission can be used to improve diagnostic suspicion. Further studies comparing clinical outcome of the subset of patients suspected of having acute PE and excluded by CTPA will be performed.

T-25
LONG-TERM ORAL ANTICOAGULATION TREATMENT OF PATIENTS WITH DEEP-VENOUS THROMBOSIS AND MALFORMATION OF THE INFERIOR VENA CAVA

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Objectives: The inferior vena cava malformation (IVCM) is a rare congenital anomaly that affects 0.001-1% of the population. When associated with genetic polymorphism or other hypercoagulable states, the risk of deep-venous thrombosis (DVT) can increase. We analyzed a series of consecutive patients from our center with IVCM and DVT and their outcome with or after withdrawal long-term oral anticoagulation.

Material and method: Between 1979 and 2009 patients attended in a university tertiary care hospital with first acute lower-extremity DVT episode and subsequently found to have IVCM on computed tomography (CT) scan or magnetic resonance imaging (MRI). Patients were followed-up until April 2012. The data was collected retrospectively from medical records. Clinical variables and venous thromboembolism (VTE) recurrences were registered. Statistic analyses were calculated using SPSS v.15 software.

Results: Seven patients were included, four were men. The mean age at the diagnosis was 36.8 (range 31-51) years. In 71% of the cases (five patients) the thrombosis was bilateral. In one of the six cases analyzed we have found a thrombophilic disorder (Factor V Leiden heterozygous mutation). In four of the patients were found factors associated with VTE (smoking in three patients, oral contraceptive in one patient). One of the cases had family history of VTE. The diagnosis was done in six patients using CT scan and MRI in the remaining patient. Only one of the patients had a DVT recurrence seventeen years after oral anticoagulation withdrawal. No patient had evidence of pulmonary embolism (PE). The six patients who discontinued oral anticoagulation therapy indefinitely have had no evidence of recurrent VTE during follow-up with a mean of 22.2 (range 4-57) months.

Discussion: IVCM is a rare congenital anomaly associated with DVT in young patients, increasing the diagnostic suspicion when the thromboembolic event in such patients occurs bilaterally. The management of DVT associated with IVCM is controversial. According to our results, there is low risk of recurrence after withdrawal oral anticoagulation in DVT associated with IVCM.

Conclusions: In our series the withdrawal of oral anticoagulation treatment was safe with low risk of DVT recurrence and no case of PE.

T-26
INCIDENCE OF VENOUS THROMBOEMBOLISM IN MALIGNANT PLEURAL EFFUSIONS AND IMPACT ON SURVIVAL

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Objectives: 1) To know the incidence of thrombotic events (TE) in patients with malignant pleural effusions (MPE), according to the primary tumour. 2) To compare the survival in 3 groups of patients: 1) MPE without TE, 2) MPE with TE before or at the diagnosis of MPE and 3) MPE with TE during chemotherapy.

Material and method: Retrospective study of all patients who were diagnosed of MPE in a university hospital (Lleida, Spain) between January 2006 and February 2012.

Results: Two-hundred and twenty-five patients with MPE were included, of whom 29 (13%) developed a TE (17 pulmonary embolisms and 14 deep venous thrombosis). Nineteen TE appeared less than 1 year before MPE diagnosis and 10 were directly related to the chemotherapy agents (8 platinum analogues and 2 gemcitabine). Lymphoma and gastrointestinal cancers were the tumour types more frequently associated with thromboses (Table). The survival of patients with MPE without TE was 203 days, compared with 104 days among patients with TE before or at the diagnosis of MPE ($p = 0.05$). The survival of patients who developed TE during chemotherapy was 184 days.

Discussion: There are no studies analysing the frequency of TE in patients with MPE. Thrombosis has been classically considered as a

Table 1 (T-26). Incidence of venous thromboembolism in malignant pleural effusion

Tumor origin	No. of patients	No TE No. (%)	TE before MPE No. (%)	TE during chemotherapy No. (%)
Lung	84	71 (85)	8 (10)	5 (6)
Breast	39	37 (95)	1 (3)	1 (3)
Unknown primary	21	18 (86)	2 (10)	1 (5)
Lymphoma	18	15 (83)	3 (17)	0
Gastrointestinal	15	11 (73)	2 (13)	2 (13)
Others	48	44 (92)	3 (6)	1 (2)
Total	225	196 (87)	19 (8.5)	10 (4.5)

poor prognosis factor in cancer, although in our study this was true only in cases of thrombosis not related with chemotherapy.

Conclusions: Up to 13% of the patients with MPE developed a thrombotic event, particularly in lymphomas or gastrointestinal cancers. Thrombosis not related with chemotherapy appeared to be a poor prognostic factor in patients with MPE.

T-27
VENOUS THROMBOEMBOLIC DISEASE IN A COMMUNITY HOSPITAL

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Objectives: Analysis of clinical and epidemiological characteristics and secondary complications of patients admitted to internal medicine department with a diagnosis of venous thromboembolism (VTE) in a period of 3 years.

Material and method: Retrospective analysis using medical records of patients admitted to our hospital from January 2009 to December 2011 with a diagnosis of VTE at discharge. Analysis using SPSS 20.

Results: Of a total of 143 patients, 81 (56.6%) were male, mean age of 69.19 years (range 23-97 years). VTE presented a history of 20.3%. The risk factors were: bed rest and immobilization 23.1%, 21.7% malignancy, recent major surgery 11.2%, 6.3% COPD, travel and DM 3.5% respectively, previous trauma, congestive cardiac and catheters 2.8% respectively, obesity and venous insufficiency 2.1%, stroke and previous hormone treatment 1.4% respectively. Of the cases analyzed, 51% were pulmonary thromboembolism (PE), 30.1% deep vein thrombosis, preferably with proximal location (77.1%) and 18.9% both simultaneously. Thrombophilia was performed at 30 21.3%. D dimer was determined in 121 patients (84.6%). Was negative in only 4 patients. The treatment used was the low molecular weight heparin (LMWH) 58.7%, 40.6% followed by acenocoumarol, fondaparinux in one case, and in only one case was thrombolysis. The relapse rate was 6, 3%. Hemorrhagic complications 4.2%; 4.2% were exitus. The average stay was 8.6 ± 5 days.

Discussion: VTE is a relevant disease. The most common styles are PE and DVT. We found a similar distribution in age and sex, according to literature. We describe the presence of risk factors in over 85% of patients, the most common are immobilization, malignancy and recent history of major surgery. The most widely used diagnostic procedure remains CT angiography of pulmonary arteries, sought after high clinical suspicion. The treatment of choice is LMWH and oral anticoagulants in proportions similar to those obtained in our analysis. In the literature reviewed, the average stay ranges from 9 to 13 days for VTE, being less in our case. Mortality is similar to that described in the literature.

Conclusions: VTE is a disease very prevalent in our environment, especially in institutionalized elderly patients with reduced mobility, with high morbidity and mortality, it forces us to make a correct prophylaxis. It is important to individualize the management and treatment of our patients to avoid complications.

T-29
THE MANAGEMENT OF CHILDREN`S THROMBOSIS BY THE INTERNAL MEDICINE PHYSICIAN

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Objectives: Describing the patient care of children consulted to specific venous thromboembolism disease (VTE) Unit dependent of the Internal Medicine Department by the pediatric unit during the period of one year.

Material and method: We report four cases of deep vein thrombosis (DVT) found in children aged between 2 and 4, accepted to the pediatric services of our hospital.

Results: In all of the four cases it was the first VTE episode. In 2 cases thrombosis was located in the cerebral sinovenous (CSVT), another in the upper limb (right internal jugular) and the last in both territories (right internal jugular and cavernous sinus). Three of the four cases involved a secondary thrombosis, with an infection of the orofacial area as the only precipitating factor and in the other case no predisposing factor was founded. In all of them the management was the same: due to suspected diagnosis in addition to a positive value of D Dimer in the coagulation test, we confirmed de diagnosis of DVT with imaging: compression ultrasound, magnetic resonance (MRI) and magnetic resonance angiography (MRA) and treatment was started with low-molecular weight heparin (LMWH); subcutaneous enoxaparin with dose of 1 mg per kg every 12 hours monitored to a target AntiXa activity range of 0.5 to 1.0 units/mL. The clinical progress was appropriate and after initial anticoagulation we proposed maintaining the treatment with LMWH for 3 months in ambulatory mode, with subsequent change to an only daily dose of enoxaparin adjusted to 1.5 mg/kg after verifying proper anticoagulation levels of AntiXa.

Discussion: We conducted regular surveillance of the patients in a specialized VTE unit. During the follow up, new imaging was included and also coagulation tests with D-Dimer as well AntiXa levels. A study of thrombophilia was applied to all patients, once made discontinuation of enoxaparin treatment after a three-months anticoagulant therapy, In the 3 cases in which venous thrombosis was secondary to an infectious cause, both values of D Dimer and imaging tests had normalized, so, after getting a negative thrombophilia study, anticoagulation was discontinued definitely. In the only the case in which there was found no predisposing factor for thrombosis, including the negative thrombophilia study, we assume the episode as an idiopathic DVT. A new MRA compared with the older ones showed changes suggestive of chronic CSVT and the lab tests revealed a weakly positive D-Dimer. After considering risk-benefit, it was decided to suspend anticoagulation and closely review the patient. At the first visit, just one month after discontinuation of LMWH, D Dimer remained stable and a year later our patient has not presented symptoms or signs suggestive of recurrent thrombosis.

Conclusions: The internal medicine physician as consultant and as a fundamental part of cross-department units, short-stay or

home care units but especially when working in specific care units for treatment of diseases such as VTE, should be familiar with the management of patients like children, who were not traditionally assisted by this specialty. Children who have problems related with thrombosis, although this is an uncommon pathology at that age, benefit from a first care and follow-up carried out jointly by pediatricians and physicians experienced in the treatment of VTE.

T-31
CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION

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Objectives: Chronic thromboembolic pulmonary hypertension (PH) (class 4 of current classification of PH) is defined as mean pulmonary-artery pressure (MPAP) greater 25 mmHg that persists 6 months after pulmonary embolism is diagnosed, and it has a prevalence of 2-4%. Typically, patients have a honeymoon period after acute pulmonary embolism without symptoms despite the existence of pulmonary hypertension, and its natural history is not well-known.

Material and method: In consecutive patients diagnosed of acute pulmonary embolism by chest computed tomography angiography (CTA), a trans-thoracic echocardiography with doppler imaging was made in order to evaluate data of pulmonary hypertension (right ventricular dilatation, hypertrophy and hypokinesis, right atrial enlargement, right ventricular pressure overload signs) and to measure systolic pulmonary pressure (mean gradient method) and to calculate mean pulmonary pressure applying the Chemla equation (0.61 × systolic pulmonary artery pressure + 2 mmHg). We interpretate as pulmonary arterial hypertension when one or several factors above mentioned, or mean pulmonary artery pressure > 25 mmHg were present. We also recorded data related to gaseous exchange, plasma ProBNP and troponin values and clinical antecedents of previous cardiac and chronic respiratory disease and resolution of pulmonary thrombi evaluated by (CTA). Dyspnea was categorized with NYHA class.

Results: Sixty eight patients were evaluated, mean age 70 ± 13 years, men 32 (47%). Previous cardiac disease occurred in 9 patients and chronic respiratory disease in 2 patients in which pulmonary hypertension were shown and they were ruled out for evaluation. Thus, 18 (31.5%) patients had some degree of PH, while 39 patients had normal MPAP and right ventricular function. Globally, echocardiography was made in a median time of 4 (interquartile range 8) months after acute episode. In patients with some data of PH echocardiography was made 6.25 ± 6 months after acute episode. Echocardiography showed a dilatated right ventricle in 9 patients, hypertrophic right ventricle 2 patients, right ventricular hypokinesis 2 patients, tricuspid regurgitation in 3 patients and right atrial enlargement in 2 patients. Systolic pressure of pulmonary artery was recordable in 47 patients (mean 41.08 ± 14.84 mmHg) with a mean pulmonary artery pressure of 26.4 ± 8.98 mmHg. Patients with PH had plasma Pro-BNP 873 (IQR 1,891 ng/l, delay in diagnosis 9 (IQR 19) days, PaO_2 58.76 mmHg, $PaCO_2$ 32.97 mmHg, and A-aO_2 49.33 mmHg; while patients without PH had plasma Pro-BNP 527 (IQR 1,803) ng/l (p = 0.07), delay in diagnosis 7 (IQR 12) days (p = 0.05), PaO_2 65.54 mmHg (p = 0.09), $PaCO_2$ 36.31 mmHg (p = .07) and A-aO_2 39.44 mmHg (p = 0.019). MPAP in patients with PH was 28.93 ± 4.62 mmHg, while in patients without PH was 20.40 ± 2.86 (p < .001) In patients with PH, NYHA class was I 6 (33%) patients, II 8 patients, III 2 patients and IV 2 patients while patients with normal MPAP and right ventricular function was I 23 (59%) patients, II 15 patients, III 1 patients and any patient in class IV. The proportion of patients in NYHA class I was lower in the cases of PH (p = 0.05, 95%CI -0.05-0.56). Sixteen (89%) patients with PH had clinically evident deep venous thrombosis, while 23 (59%) patients without PH had deep venous thrombosis (p < 0.01).

Conclusions: Chronic thromboembolic pulmonary hypertension could be more prevalent than the previously accepted despite the good functional status of the patients. Patients with deeper failure in gaseous exchange and clinically evident DVT could have a greater risk to develop future PH.

T-32
VENOUS THROMBOEMBOLIC DISEASE. ANALYSIS OF 300 CASES ADMITTED TO A METROPOLITAN HOSPITAL IN MURCIA

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Objectives: Explain the epidemiological, clinical, analytic, therapeutic characteristics and secondary complications in patients with venous thromboembolic disease admitted to a metropolitan hospital in Murcia.

Material and method: We conducted a retrospective study of a series with 300 patients admitted to General Hospital Reina Sofia University of Murcia, between years 2009-2011, whose primary or secondary diagnosis shows venous thromboembolism (VTE) in some of its manifestations. Statistical analysis was performed using SPSS 15 for Windows.

Results: Of the total series studied (n = 300), 46.3% were male and 53.7% female with mean age 68.5 ± 35.5 years. The 16.3% of patients had a VTE history and only 3.7% had a family history. Among the most common risk factors, we have to stress prolonged immobilization (29.7%), obesity (26%), existence of chronic venous insufficiency (21.7%), diabetes mellitus (20.7%), smoking habit (18.8%) and existence of simultaneous neoplasia (15.2%). 14% of patients had a stroke history, 13% had heart failure and 9% had lung disease. Less frequently, we found other risk factors such as history of major surgery (9.1%), use of hormone therapy (6%), trauma history (6%), use of intravascular devices (4%) and history of more than 6-hour trip (1.7%). From the sample, 44.7% were diagnosed with deep vein thrombosis (DVT), 37.7% of pulmonary embolism (PE) and 17.6% of both simultaneously. Thrombophilia was performed in 30.3% of cases being positive 10.7%, with predominance of the positivity of anticardiolipin antibodies and lupus anticoagulant. Inpatient treatment at the beginning was mostly with low molecular weight heparin (LMWH) (95.3%) compared to sodium heparin (4%). From analytical alterations, it is remarkable the negativity of D-dimer in 3 patients. Major bleeding complications appear in 6% of cases and lower bleeding in 5.3%. At discharge, most patients (75.3%) were treated with acenocoumarol. Relapse rate was 3.7% during treatment and only 4 patients after treatment. The average stay was 12.46 ± 25 days, with an average DRG weight (Diagnosis Related Groups) of 1.56. The hospital mortality was 9%.

Discussion: VTE is a significant public health problem and an important cause of avoidable death, with an incidence of 0.1%. Most common presentation is DVT and PE. The distribution by sex and age observed in our study is similar to the literature reviewed, with a slightly higher prevalence in women. Approximately 80% of patients with VTE has any risk factors, being the most common: prolonged immobilization or bed rest (45%), major surgery (34%), neoplasms (34%), history of VTE (18-30%), stroke or heart failure (10.8%) and hormonal treatment (9.4%). We found a similar distribution of risk factors, being remarkable the high value in history of cardiovascular risk and chronic venous insufficiency and lower frequency in history of neoplasm, surgery, prolonged bed rest

and congenital thrombophilia. The most widely used treatment described is LMWH (96%) and oral anticoagulants (76%), with similar proportions in our analysis. The average stay described is 9 and 13 days in DVT and PE, respectively, being necessary to consider including all VTE (both DVT and PE) and the high weight of DRG in longer stays that are present in our study. Exitus rate similar to the one observed in the literature.

Conclusions: In VTE, it is especially important exposure to risk factors both hereditary and acquired. Our study highlights the low prevalence of a history of prolonged bed rest, major surgery and neoplastic disease. The determination of D-dimer has a high negative predictive value, being remarkable the negativity in 3 patients in our series.

T-33
RELATIONSHIP BETWEEN CLINICAL VARIABLES AND GENETIC THROMBOPHILIC DISORDERS IN PATIENTS WITH VENOUS THROMBOEMBOLIC DISEASES

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Objectives: Our aim is to check the relationship among different risk factors or clinical symptoms in patients with venous thromboembolic disease (VTD) and different genetic alterations.

Material and method: We have reviewed the medical records of patients with VTD, diagnosed at the hospital of Villarrobledo (Albacete, Spain) since its opening in 2007 until the present. We have collected data of patients with a thrombophilia study which determined a mutation in genotype of factor V Leiden, prothrombin genotype and MTHFR genotype as well as a deficit of protein C, protein S, and antithrombin III. We have collected clinical variables such as age, presence of malignancy, oral contraceptive use, obesity, bed resting prior to the VTD, presence or absence of pulmonary embolism, bilateral deep vein thrombosis (DVT), need for intensive care unit (ICU) admission. The frequency of genetic alterations and relationship among clinical variables collected and genetic alterations are described.

Results: We identified 122 patients. Out of these 122 patients, 21 (17.2%) had a malignancy, 67 (54.9%) were male and 21 (17.2%) had previously suffered another episode of VTD. Only 1 case (0.8%) was heterozygous carrier of factor V Leiden mutation, 10 cases (8.2%) were carriers of mutation of the prothrombin gene and 21 cases (17.2%) were homozygous for MTHFR mutation. Decreased levels of protein C were detected in 12 patients (9.8%) and decreased levels of protein S were detected in 27 patients (22.1%). Deficiency of antithrombin III level was found in 12 patients (9.8%). One of these disorders was found in forty one patients (33.6%), two of them were found in 10 patients (8.2%), three of them were found in 6 patients (4.9%) and four conditions were found simultaneously in one patient (0.8%). A possible relationship between the presence of at least one of these disorders and a history of malignancy ($p = 0.054$) was detected. Besides, a relationship between patients who suffered VTD after bed rest over 4 days with the presence of some of these thrombophilic disorders was also detected ($p = 0.006$). Out of the four patients who had bilateral DVT, one of them had three of these genetic disorders, a second patient had two of them and a third one had four of these disorders. It seems there is a relationship between the history of more than one episode of VTD with protein C deficiency ($p = 0.051$) and antithrombin III deficiency ($p = 0.003$). No differences were found between genetic alterations with other clinical variables such as age, sex, presence or absence of pulmonary embolism and need for ICU admission or death.

Discussion: This study asks about the relationship between some clinical data with the presence of genetic abnormalities predisposing to VTD. The fact of the coexistence of risk factors such as prolonged bed rest or neoplasm does not rule out the presence of these genetic alterations. These abnormalities may be responsible for the development of deep vein thrombosis as well as other risk factors present in these patients.

Conclusions: Certain clinical features may be related to underlying genetic alterations in VTD. The presence of certain risk factors does not exclude the possibility of genetic predisposition for thrombosis as an added risk factor.

T-34
IS THROMBOPROPHYLAXIS DONE CORRECTLY TO THE INTERNAL MEDICINE PATIENTS OF THE REGION OF MURCIA'S HOSPITALS?

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Objectives: To evaluate the thromboprophylaxis (TP) in medical patients admitted to Internal Medicine Services (IMS) in several hospitals in the Region of Murcia both at the admission time and during their hospital stay.

Material and method: A multicenter observational study has been performed in four Spanish hospitals of the Region of Murcia about prophylaxis for venous thromboembolism (VTE) scheduled to patients admitted from the emergency services in the IMS during the month of November 2011. Five consecutive patients were selected daily from Monday to Friday where the TP was assessed after being scheduled by their physicians (unaware of the study) according to the parameters indicated on the Pretemed Scale (PS)

Table 1 (T-34). Pretemed criteria

	Low risk (1st day)	High risk (1st day)	Low risk (4th day)	High risk (4th day)
Not prescribed TP	52 (35%)	30 (21%)	58 (39%)	43 (30%)
Prescribed TP	97 (65%)	112 (79%)	91 (61%)	99 (70%)

Table 2 (T-34). Medenox criteria

	Low risk (1st day)	High risk (1st day)	Low risk (4th day)	High risk (4th day)
Not prescribed TP	49 (40%)	27 (18%)	60 (49%)	36 (24%)
Prescribed TP	73 (60%)	122 (82%)	62 (51%)	113 (76%)

and the criteria of Medenox (MX) and Exclaim studies. The hospitals that participated in the study were: Morales Meseguer (HMM) and Virgen de la Arrixaca (HUVA) from Murcia, Santa Lucia (HUSL) from Cartagena, and Virgen del Castillo (HVC) from Yecla.

Results: A total of 396 patients were evaluated. 105 (27%) of them were anticoagulated and they were not included in the TP study. Tables 1 and 2 show the data for the included 291 patients. The prescription of TP on admission (day 0) was: 204 drug (70%), 5 mechanical (1.7%), 82 not prescribed prophylaxis (28%). The prescription on the 4th day was: 186 drug (64%), 4 mechanical (1.4%) and 101 unprescribed (35%).

Discussion: The previous study showed the underutilization of TP in medical patients. There are several guides in the literature used to frame the risk of VTE in medical patients; the Spanish PS guide and the internationally validated MX are the most used ones. Data from our study, based on both guides, show that TP regimen figures for patients at high risk have increased from the previous studies (79% PS, 82% MX), dropping these figures on day 4 of hospitalization (65% PS, 76% MX) without any apparent cause that justifies it. Some, even more concerning, figures are obtained by analyzing patients at low risk for VTE where we see that TP is predicted in very high figures both at admission (65% PS, 60% MX) and on day 4 (61% PS, 51% MX).

Conclusions: According to PS and MX guidelines, the absence of TP in patients at high risk for VTE in the IMS in our region at admission time and during hospital stay is lower than in published studies but there is a fairly high percentage (> 50%) of patients at low risk that receive it even when they should not receive it, both at their arrival and during their stay in our services. The low use (< 2%) of physical measures is a common pattern in all our patients. To sum up, we might say that inadequate thromboprophylaxis is greater in excess than in defect.

T-35
LOW-MOLECULAR-WEIGHT HEPARINS IN VTE PREVENTION - AN INQUIRY IN INTERNAL MEDICINE WARD

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Objectives: It's well known that low-molecular-weight heparins (LMWHs) have proven effectiveness in the prevention of venous thromboembolism (VTE), being VTE responsible for high morbility and mortality during in-hospital admittance. Prevention has the best cost-effectiveness ratio. Nevertheless, published data has shown that just about half of the patients that should be taking LMWHs are in fact doing so. Taking these facts into account, the authors will present the prevalence for the prescription of LMWHs in an Internal Medicine ward and its relationship with the adapted algorithm from the ACCP 2008 guidelines for VTE prevention.

Material and method: The authors applied an inquiry that was carried out without prior notification and included all patients admitted at the time in this Internal Medicine ward. Adaptted algorithm in accordance to the ACCP guidelines 2008 was applied.

Results: Study included 27 patients – 61% male; average age of 74.7 years (13 patients older than 80 years-old). The average admittance time was 9.7 days. Of the 27 patients, 16 were under LMWHs and they all fulfilled the criteria for prevention. Of the other 11 patients that weren't, we concluded that 9 should have been, according to the ACCP algorithm; nevertheless 3 of them were under oral anti-coagulation, 2 with anti-platelet therapy and the other 2 presented thrombocytopenia. With respect to dosage, the majority of the patients were under prophylactic dose (14 patients) - 12 under 40 mg and 2 under 20 mg (renal insufficiency with GFR less than 30), once daily.

Discussion: The authors call attention to the fact that 10-30% of in-ward patients develop one or more presentations of VTE. In spite of this data, not all the patients are submitted adequate prevention. In this inquiry 89% of the patients had criteria for VTE prevention therapy and 65% of them were in fact doing so. Of the 35% of patients that weren't under prevention therapy we concluded that 3 had anti-coagulant therapy and 2 had thrombocytopenia, conditions that increase the hemorrhagic risk.

Conclusions: The results presented, although encouraging, reinforce the need of calling attention to the problem and to the established protocols taking into account the high efficacy of this preventive measure and VTEs high mortality.

T-37
EPIDEMIOLOGIC ANALYSIS OF PULMONARY EMBOLISM IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: The aim of this study is the knowledge of the risk factors of pulmonary embolism, as well as the presentation, complications and mortality of these patients.

Material and method: We retrospectively reviewed the medical records of patients admitted for pulmonary embolism, during the period between January 2010 and January 2011. Data on risk factors, comorbidity, clinical presentation, complications, treatment and outcome were collected from clinical history. Clinical probability scales Wells and Ginebra were used. To perform the analysis the statistical package SPSS version 19.0, for qualitative variables, have been calculated frequency tables, while for quantitative measures of central tendency most common location.

Results: A total of 41 patients were diagnosed of pulmonary embolism during the period of the study; 68% of whom are women (28), with a mean age of 73 (31-97). Age > 75 years (66%) was the risk factor more frequent collected followed by neoplasm (31.7%), immobilization of more than 4 days (22%) and previous deep venous thrombosis (14.6%). The most common symptom of presentation was dyspnea (87%), followed by deep vein thrombosis (31.7%), syncope and pleuritic pain (22%), fever (19.5) and hemoptysis (19.4%) As for the chest X-ray, the most common radiological finding is pleural effusion (17.1%), followed by pulmonary infiltrates (14.6%), although most of them had a normal chest radiograph (58, 5%). The most frequent ECG finding was the right bundle branch block (14.6%), followed by alterations of repolarization in right precordial leads (12.2%), pattern SIQIIITIII (7.3%), and atrial fibrillation (4.9%). Analytically noted that 100% of patients have a higher D-dimer to 0.5. Regarding the arterial blood gas analysis, 41% have respiratory failure at admission (17). The distribution of patients by clinical probability scales were for Wells scale: low probability 9 (22%). Intermediate probability 25 patients (61%), and high 6 patients (14.6%). And for Ginebra scale: low probability 13 (31.7%), intermediate risk 23 (56.1%), and high probability 1 (2.4%). Regarding computerized axial tomography central artery embolism were found in 26 patients (63%), lobar arteries embolism in 27 patients (65.9%), and segmental arteries embolism in 6 patients (14.6%). Regarding treatment 24 patients (43.9%), were treated with LMWH followed by acenocoumarol, 14 patients (34%) were treated with LMWH most of them had an active neoplasm. Only in 3 (7.3%) patients fibrinolysis was indicated. 5 patients (12%) died.

Conclusions: The risk factor most associated with pulmonary embolism, was age over 75 years. The most common symptom was dyspnea, the majority RX and ECG had not pathological findings. Most commonly arteries affected were central and lobar. The most frequently used treatment is LMWH followeb by acenocoumarol. Only 12% of patients died.

T-38
PROPHYLAXIS FOR THROMBOEMBOLIC DISEASE AT DISCHARGE

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Objectives: Prophylaxis for thromboembolic disease (TD) in hospitalized patients with PRETEMED index ≥ 4 has proven to be effective. However, their effectiveness at discharge is not well established. The aim of our study is to describe the characteristics of patients admitted for major thromboembolic event (MTE).

Material and method: Retrospective descriptive study. From 1st January 2010 to 31st December 2011, we identified all patients admitted to our center with diagnosis at discharge of MTE (pulmonary embolism –PE- or deep vein thrombosis (only femoral and popliteal)-DVT-). Demographic data (age and gender), PRETEMED index, previous hospitalization (PH) within the previous 12 months, the reason for admission, length, prophylaxis at discharge or not, time to MTE and 30-days mortality were reported.

Results: 172 patients presented MTE (112 PE, 60 DVT). The median age was 70 ± 16 years old and 48% were men. The most frequent risk factors were age > 60, neoplasm, immobilization > 4 days and prior TD in 73%, 23%, 20% and 16%, respectively. 70 patients (41%) had PH. The most common reasons of income were traumatology (21%), pneumological (17%) and cancer (14%). TD represented 6%. The median income was 9.7 ± 8.1 days and 14% were prescribed prophylaxis at discharge. 58% of the patients with PH, presented the MTE within 30 days. The global PRETEMED index was 3 ± 2 points (2.7 if no PH vs 3.3 in PH, $p > 0.05$). Mortality at 30 days was 7% in no PH vs 15% in PH patients ($p > 0.05$).

Conclusions: The most common risk factor in patients with MTE was the age. Nearly half of patients with MTE have a history of PH, especially within the first month. However, no prophylaxis at discharge is prescribed. According to our study, it would seem advisable to assess prophylaxis at discharge in patients with high PRETEMED index. More studies in this regard, with larger samples are needed.

T-39
VENOUS THROMBOSIS, DON´T LOOK AT THE LEGS, DO IT IN TO THE ABDOMEN!

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Objectives: To know the clinical features, diagnosis and treatment of a rare cause of persistent venous thrombosis of the left iliac.

Material and method: A two diagnosed cases report in 2011 at "Hospital de Santa Lucía", Cartagena.

Results: Case 1: A 33-year-old woman consults to our department for a left lower limb swelling that lasted for a week. She had a L4-L5 herniated disc and she was taking oral contraception for the last 10 years. When the swelling started she associated it to her disc disease, so she rested and took painkillers. A week later, she checked for persistent pain and swelling in the left lower limb. A Doppler ultrasound was performed showing a deep vein thrombosis (DVT) of the left iliac and superficial femoral vein and she was treated with acenocumarol. 3 and 6 months control Doppler showed persistence of thrombus. In order to study the persistence of the thrombus, we asked for an abdomino-pelvic CT which reveals extrinsic compression of the left common iliac vein at its origin – between the right common iliac artery and the spine. Case 2: A 22-year-old woman consults to our department about persistent pain in her left thigh. She had a right hemithyroidectomy for a thyroid nodule. She had been using a vaginal ring (etinilestradiol-etonogestrel) during the last year. The examination revealed an increase in left thigh perimeter, erythema, also warmth and pain at palpation. A Doppler ultrasound showed venous thrombosis in the common and superficial femoral; left distal superficial femoral vein; proximal arch of great saphenous vein and external iliac. Due to the location of proximal thrombosis we decided to ask for an abdomino-pelvic CT to keep up with our study. That CT shows acute venous thrombosis in iliac sector common femoral and superficial, with stenosis of the iliac vein origin, mostly caused by extrinsic compression between the right common iliac artery and the spine.

Discussion: The May-Thurner syndrome is a deep venous thrombosis of the left iliofemoral vein being compressed between the right primitive iliac artery and the fifth lumbar vertebrae. The friction between both vessels and the constant transmission of the pulse of the artery over the vein produces an irritation on the endothelium, therefore it proliferates. This fact predisposes to thrombosis. The May-Thurner syndrome could be responsible of 1 to 5% of DVT. Diagnosis is made by CT, but the gold standard is flevography. Being diagnose, if there are no contraindications, it may start oral anticoagulation at least for 6 months. Nowadays, new therapeutic techniques, such as direct thrombolysis catheterization and stent placement, are been tested.

Conclusions: We should keep in mind May-Thurner syndrome as a possible cause of left iliac vein thrombosis. It should be highly suspected in patients with symptoms of persistent edema and pain in the left leg.

T-40
PHARMACOLOGICAL VENOUS THROMBOPROPHYLAXIS (PVT) IN INTERNAL MEDICINE (IM). DOSAGE ANALYSIS

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Objectives: Evaluation of the doses of PVT administrated in IM and the implementation of the guidelines.

Material and method: Observational study of PVT in patients admitted in IM departments of 4 hospitals in the region of Murcia, in November 2011. We recruited 5 patients that were admitted daily from Monday through Friday, without the knowledge of the doctors assigned to each of them. Using the treatment sheets, the PVT and the doses was compared according to the Pretemed parameters during the 1st and 4th day of admission. Renal failure was defined as a creatinine level greater than 1.3. Patients anticoagulated for other reasons were excluded from the study.

Results: Of a total of 291 patients, PVT was administered to 205 (70%) of them, these are the subjects included in the study. The most commonly used drug for prophylaxis was enoxaparin (95%), with doses ranging from 20 to 160 mg daily, nonetheless 90% corresponded to the 20 mg (17%) dose and 70% to 40 mg. Second most commonly used drug was bemiparin 3,500 units in 4%. Table 1 shows the dose according to risk on the 1st and 4th day after admission.

Discussion: In our study, the doses of PVT used vary among patients, although the most current doses are 20 and 40 mg of enoxaparin. In high-risk patients the dose administered (40 mg) is adequate in 80%, and up to 90% is considered correct if the 20 mg dose is used in patients with renal impairment. The prescription does not change during the first days of admission, which may reflect a lack of reconsideration of this matter.

Conclusions: 1) 90% of the high-risk patients hospitalized in Internal Medicine department receives the correct dose of pharmacological venous thromboprophylaxis.2) A high percentage of the low-risk patients receive a similar dose of pharmacological thromboprophylaxis as high-risk patients. 3) The dosage of venous thromboprophylaxis does not often change during the first days of hospitalization.

Table 1 (T-40)

Day 1	Low risk	High risk	Total
40 mg/day (or 3,500 IU)	70(74%)	88(80%)	158
Other dosage	25(26%)	22(20%)	47
p = 0.28	95(46%)	110(54%)	205
4th day			
40 mg/day (or 3,500 IU)	68(74%)	73(76%)	141
Other dosage	24(26%)	23(24%)	47
p = 0.74	92(48%)	96(51%)	188

T-41
EVALUATION OF THROMBOPHILIA SCREENING IN A TERTIARY HOSPITAL OF THE METROPOLITAN AREA OF BARCELONA

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Objectives: To determine the most frequent abnormalities in the thrombophilia screening among patients who have suffered a thrombotic event in a metropolitan area of Barcelona, Spain.

Material and method: The results of all consecutive, thrombophilia studies of the last two years (2010 and 2011) were obtained by the service of Hematology of our Hospital. All of them belonged to patients who had thrombosis. There were analyzed the frequency and type of alterations of hemostasis. In the study of thrombophilia was analyzed protein C, protein S, antithrombin III, factor V Leiden mutation, mutation of the prothrombin gene G20210A, lupus anticoagulant, anticardiolipin antibodies IgG and IgM, anti-beta-2-glycoprotein IgG and IgM antibodies, and homocysteine.

Results: A total of 74 patient samples were included in a thrombophilia screening during the following years 2010 and 2011 at the Esperit Sant Hospital, Santa Coloma de Gramenet, Barcelona, Spain. Among the 74 patients, 48 (64.87%) were females and 26 (35.13%) were males. The medium age was 51.82 years (range 16-80). Half of the patients (37) had any alteration in the thrombophilia study. Protein S was analyzed in 59 patients and 4 (6.78%) had protein S deficiency. Protein C was analyzed in 58 patients and 1 patient (1.72%) had its deficiency. Antithrombin III was analyzed in 61 patients, and 3 patients presented antithrombin III deficiency. Factor V Leiden mutation was analyzed in all 74 patients, appearing in 10 patients (13.51%), all of them heterozygotes. G20210A prothrombin gene mutation was analyzed in 66 patients, appearing in 4 patients (100% heterozygous). 1 patient had both mutations simultaneously. Lupus anticoagulant was analyzed in 63 patients, being positive in 12 (19.5%). Anticardiolipin antibodies were analyzed in 70 patients, 17 of them (24.28%) were positive, 7 (10%) IgG positive, and 10 (14.28%) IgM positive. Anti-beta-2-glycoprotein antibodies were analyzed in 14 patients, being IgG positive only in one patient (7.14%). In 64 patients homocysteine was analyzed, being altered in 13 (20.31%), 12 (92.31%) of whom had vitamin deficiency and 1 patient (7.69%) was heterozygous.

Discussion: The thromboembolic disease is a serious clinical problem because of its high incidence and its important morbidity. In addition to the classic predisposing factors, such as elderly, immobilization, trauma, malignancy, surgery or contraceptive drugs, it is possible to identify abnormalities in hemostasis mechanisms, which may favor thrombotic process. The results of this study confirm the importance of investigating possible causes of thrombophilia in patients who suffered a thrombotic event.

Conclusions: 1. In half of the cases analyzed there are alterations in the mechanisms of hemostasis that involve a prolonged anticoagulant treatment. 2. Thrombophilic disorders occur mainly in women with 52 years on average. 3. The most frequent alteration in our environment are hyperhomocysteinemia (20.3%) and antiphospholipid syndrome -with increased frequency of anticardiolipin antibodies (24.28%) and lupus anticoagulant (19%)-, followed by factor V Leiden mutation (13.51%). 4. It is important to make a thrombophilia screening in all patients who have a thrombotic event.

T-42
DESCRIPTIVE STUDY OF 345 PULMONARY EMBOLISMS

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Objectives: The aim of study was to know and analyze the epidemiological characteristics of the patients with pulmonary embolism (PE) in our hospital.

Material and method: We studied 345 patients in a retrospective study of patients with PE from 2005 to 2010 at the Hospital Nuestra Señora de Sonsoles (Ávila, Spain). There were excluded those patients without certainty PE diagnosis.

Results: Patients: 345. Males: 190 (mean age: 68.9 +/-15.3 years). Women: 155 (mean age: 60.5 ± 15.8 years). The initial clinical symptoms were: symptoms related to the PE (262), symptoms related to PE and DVT (76) and incidental findings (7). The diagnosis was realized by CT-angiography in 340 patients, ventilation-perfusion scan in 4 and autopsy in 1 patient. Predispoising factors for PE were: immobilization (34), obesity (29), thrombophilia (29) and contraceptives (7). D-dimer > 500 was in 288/294 (97.3%). Mortality patients were 73 (21.2%), being in 7 cases related to the PE and the rest for other causes. Anticoagulant therapy was carried outusing low molecular weight heparin in 74 (21.5%) and acenocumarol in 271 (78.5%), withdrawn in 17 patients (6.3%), 11 for hemorrhagic causes (two of them lethal) and 6 for other causes. Filter of cava vein was placed it in 2 patients (0.6%).

Conclusions: PE is more frequent in males and these are older than women. Initial clinical symptoms are related with PE, without DVT. Usually, the diagnosis method is CT-angiography. D-dimer is raised in 97.5% of patients. Mortality was 21.2%, related one to PE 2%. Thrombophilia was present in 8.4% of the patients. The treatment is usually acenocumarol.

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T-43
RESIDUAL VEIN THROMBOSIS (RVT) AFTER 6 MONTHS OF ANTICOAGULANT TREATMENT

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Objectives: Nowadays, RVT is considered an additional factor to estimate the risk of recurrence of deep vein thrombosis (DVT), but not enough to strongly influence recommendations on length of therapy. Our objective was to analyze the clinical and epidemiological differences between patients who had RVT in ultrasound and those of patients whose ultrasound was reported as patent (PV) after 6 months of anticoagulant treatment.

Material and method: In May 2010, we started an outpatient-based deep vein thrombosis management protocol in our Internal Medicine Unit. After the acute phase, patients were referred for follow-up in a monographic DVT office. Doppler ultrasound was performed before the treatment withdrawal, usually 3 or 6 months after starting anticoagulant therapy. Variables recorded were: age, sex, location, predisposing factors and the result of Doppler ultrasound control (RVT or PV). Qualitative variables were expressed as frequency and quantity variables, according to their symmetry with the average and standard deviation or median and inter-quartile range. The comparison of hypotheses was performed using the Chi^2 test and Pearson's correlation. We performed a multivariate logistic regression analysis with variables expressing OR and his confidence interval. All data was stored in Access database and analyzed using the statistical package SSPSS 11.

Results: A total of 84 patients were diagnosed in the Emergency Unit of lower limb DVT during the period from May 2010 to April 2012. 38 patients underwent ultrasound scans. The average time to perform the Doppler ultrasonography was 196.85 days (95%CI 160.73 to 232.97). In 47.4% of the patients RVT was showed, the thrombosis was supra-popliteal in 12 (66.67%). The median age was 58.64 years, with a 52.6% of patients below age 65. The location of the DVT was: supra-popliteal vein 23 (60.5%), under-popliteal vein 14 (38.8%) and iliofemoral 1 (2.7%). A predisposing factor was found in 9 patients with RVT (50%) and in 13 with PV (65%). The only factors associated with RVT after 6 months of anticoagulant treatment were the history of thromboembolic disease and the absence of immobilization as the underlying cause to unchain venous thrombosis.

Conclusions: In this study RVT was present in 47.4% of patients 6 months after starting anticoagulant therapy regardless of age and sex. These results confirm, as other studies, the need to check Doppler ultrasound thrombous resolution before the end of treatment. Immobilization as the underlying cause of venous thrombosis was the only factor associated with lower risk of RVT, indicating that in these patients the anticoagulant treatment can be shortened. At the moment, our limited number of patients does not allow us to draw conclusions for other predisposing factors.

T-44
ASSOCIATION OF INCREASED D-DIMER (DD) LEVELS WITH VENOUS THROMBOEMBOLISM DISEASE (VTD) AND OTHER CAUSES

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Objectives: Analyze if high DD levels are associated with a higher probability of suffering from VTD, as well as the influence of other factors on DD level increase.

Material and method: A descriptive study was performed in 691 consecutive patients with the determination of DD levels using ELISA (Enzyme-Linked ImmunoSorbent Assay) in a regional hospital in Asturias between the period of January inclusive till 15th of March 2010. Demographic data, sex, age, DD levels, diagnosis on admission, and other causes of DD level increase were analysed using SPSS 19.0 (Statistical Package for the Social Sciences).

Results: A total of 691 consecutive DD determinations were identified, of which 51.6% were women and the average age was 68.7 years (50.7-86.8). In 238 cases (34.4%), the DD level was within the normal range (< 275 ng/mL), and elevated in 453 (66.6%). VTD was found in 46 patients (6.6%), of which 27 had DVT (deep venous thrombosis), 15 had PE (pulmonary thromboembolism) and 4 had both DVT and PE. There were 5 VTD (2.1%) with normal DD levels, and 41 (9%) with elevated DD levels ($p < 0.001$). There was an association between high DD levels and VTD, we observed that as values increased the likelihood of VTD was higher. For normal DD levels, only 2.1% of the cases had VTD, 5.9% for values between 276-1,920, 17.2% between 1,921-3,560, 19% between 3,561-5,200, and finally 20.7% for DD > 5,200. Taking as reference the first interval (OR = 1), the values of OR are respectively 2.91, 9.67, 10.96 and 12.16 ($p = 0.001$). Other causes of increased DD levels that were statistically significant include heart failure ($p = 0.001$), sepsis ($p = 0.001$), surgery and traumatism ($p = 0.001$), malignity ($p = 0.0001$) and acute renal failure ($p < 0.01$). We found no statistically significant association between high DD levels and atrial fibrillation, acute myocardial infarction, stroke, disseminated intravascular coagulation, fibrinolysis, eclampsia, sickle cell anemia, SIRS (systemic inflammatory response syndrome), severe liver disease, nephrotic syndrome, chronic renal failure and cardiovascular disease, pregnancy or venous malformations. There were 402 patients with high DD levels who had not suffered from VT; 330 (82%) of them had at least one of the five factors that were statistically significant: heart failure 22.39%, sepsis 48.51%, surgery or traumatism 16.91%, malignity 17.16%, acute renal failure 5.75%. The remaining 72 patients did not have any of these causes for increased DD levels.

Discussion: As in other studies, DD levels have shown to be useful to exclude VTD, with a negative predictive value of 97.89%. However the low specificity found (36.12% in our study) makes it a poor tool to support the diagnosis of VT, as there are other factors which raise levels in the absence of VTD. Other studies show that 22% of patients with high DD levels without VTD are explained by the presence of underlying diseases, whilst it was 82% in our study. Analyzing factors that can increase DD in the absence of VTD, we found statistically significant associations with SIRS, surgery, trauma, acute renal disease and malignancy. Results in other studies are contradictory, in one study a statistical significance was found for recurrent VT and elderly people whilst a statistical non significant association with malignancy. In another study there was a significant association with malignancy and non significant with previous surgery and acute medical illness. We found as in other studies a strong association between higher DD levels and the presence of VTD.

Conclusions: 1. D-Dimer levels are associated with a higher probability of suffering from venous thromboembolic disease. 2. Heart failure, sepsis, surgery and traumatism, malignancy and acute renal failure are associated with high D-dimer levels in patients without venous thromboembolic disease.

T-45
APPROPRIATENESS OF THE THROMBOPROPHYLAXIS IN PATIENTS ADMITTED AT AN INTERNAL MEDICINE DEPARTMENT OF A TERTIARY SPANISH HOSPITAL

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Objectives: The aim of this study was to evaluate the appropriateness of the thromboprophylaxis to the PRETEMED 2007 guideline criteria in medical patients admitted to two units of an internal medicine department.

Material and method: In this cross-sectional study were included patients the first 100 consecutively admitted at two medical units (internal medicine ward and short stay ward) of an internal medicine department in a tertiary hospital from March 1, 2012. Inclusion criteria were: age over 18 years-old and being admitted to one of the studied units. Exclusion criteria were: need of full-dose anticoagulation, hypersensitivity to low-molecular-weight heparins, history of heparin-induced thrombocytopenia, active hemorrhage, history of digestive tract hemorrhage in the last three months, severe hepatic dysfunction (Child B or C) and/or previous coagulation disorder (INR > 1.5 or TPTA > 60 seconds). A standardized form was filled to identify risk factors for venous thrombosis, adjusted risk of thromboembolic disease: medium-high ≥ 4 (pharmacological prophylaxis is recommended) or low < 4 (only physical measures of prophylaxis are recommended) and appropriateness of pharmacological prophylaxis. Statistical analyses were performed using IBM SPSS Statistics version 19 software.

Results: A total of 102 patients were consecutively evaluated, but finally just 62 were included (39 patients were excluded because of needing full-dose anticoagulation and one because of active digestive tract bleeding). Among these 62 patients, 17 were admitted at the short stay unit and 45 at the conventional internal medicine ward. No significant differences in demographical and clinical variables were found between patients admitted at the two units. Among the 17 patients admitted at the short stay unit, appropriateness of pharmacological prophylaxis to PRETEMED-2007 guideline was 47.1% and overuse and underuse was observed in 41.2% and 11.8% of cases, respectively. Among the 45 patients admitted at the conventional internal medicine ward, the overall appropriateness was 46.7% and overuse and underuse was observed in 35.6% and 17,7of cases, respectively.

Discussion: Despite recent advances in venous thromboembolism (VTE) prophylaxis, this disease is still nowadays a major problem of public health. The indication of thromboprophylaxis in non-surgical patients is difficult and many different risk factor must be taken into consideration. The recently developed PRETEMED-2007 Guideline was the first evidence-based-guide on VTE prophylaxis that allows to stratify the risk and to establish the indications of prophylaxis in medical patients. Nonetheless, this audit demonstrates the absence of fulfillment of these indications in our department. With the limitations of low number of subjects evaluated the study suggests that without the use of a risk scale increased awareness to the problem determines an overuse of pharmacological prophylaxis. Efforts should be made to implement the PRETEMED-2007 guideline in order to optimize the prevention of VTE in medical patients.

Conclusions: The appropriateness of thromboprophylaxis to PRETEMED-2007 is low in medical patients of our department, being overuse in low risk-patients the main problem.

T-46
FACTORS ASSOCIATED TO RADIOLOGICAL EXTENSION OF PULMONARY EMBOLISM

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Objectives: To establish risk factors for greater radiological extension of pulmonary embolism (PE) in our center. As secondary objectives we studied the relationship between radiological extension of PE and radiological data of right ventricle dysfunction (right-to-left ventricle index, RVI) and pulmonary artery obstruction (Qanadly score).

Material and method: We studied data from clinical charts of 33 consecutive patients admitted for PE in Marqués de Valdecilla Universitary Hospital (Santander, Spain) between May and September 2007. We recorded data concerning age, sex, presence of active malignancy, lung or heart diseases and previous history of venous thrombosis (VT). We registered radiological findings of right ventricle dysfunction (RVI > 1) and pulmonary artery obstruction (Qanadly score > 40%) in the spiral lung CT scan performed for PE diagnosis. We defined PE as extensive if one or both pulmonary main arteries were affected and not-extensive for the remaining pulmonary circulation (lobar and segmentary arteries). We evaluated the need of ICU admission and the fatality rate.

Results: We found 10 extensive PE (30%). No death cases were found in the extensive group while 5 patients (22%) from the not extensive group died. The distribution of the remaining clinical variables studied in both groups is shown in table 1. The only variable associated to a extensive PE was active malignancy (OR = 1.62, 95%CI = 1.19-2.2; p = 0.04). In the multivariate analysis we found no independent statistically significant association for the previously named variables. We found no statistically significant association between radiological extension of PE and the need of ICU stay or fatality. Extensive PE were associated with RVI > 1 (OR = 6.11, 95%CI = 1.28-34.14; p = 0.02) and Qanadly score > 40% (OR = 1.91, 95%CI = 1.29-2.83; p = 0.01).

Discussion: Patients with active malignancy disease had extensive PE more often. Greater radiological extension of PE was associated with radiological data of right ventricle dysfunction and pulmonary

Table 1 (T-46). Distribution of variables. n (%)

	Age > 65 years	Female sex	Malignancy	Lung disease	Heart disease	Previous VT	Need of ICU stay
Extensive 10	6 (24%)	8 (80%)	10 (100%)	0 (0%)	0 (0%)	1 (10%)	2 (20%)
Notextensive 23	19 (76%)	12 (52%)	7 (30%)	6 (26%)	10 (43%)	4 (17%)	3 (13%)

artery significant obstruction but not with the need of ICU stay or death. Patients in the not extensive group were older and this may influence in the greater fatality rate found in that group.

Conclusions: Patients with active malignancy may present with extensive PE more often. Extensive PE were associated with poorer radiological outcomes but not with worse clinical course. Further research needs to be done to confirm these findings.

T-47
RELATIONSHIP BETWEEN D-DIMER LEVEL, RESIDUAL THROMBOSIS AND POST-THROMBOTIC SYNDROME AFTER DEEP VENOUS THROMBOSIS AT 6 MONTHS OF ANTICOAGULANT THERAPY

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Objectives: Introduction: After a deep venous thrombosis (DVT) risk of recurrence is approximately 40% in 10 years. Have been described as risk factors of recurrent thromboembolic event the presence of residual thrombosis (TR) in ecodoppler control and high D-dimer (DD) levels. Post-thrombotic syndrome (PTS) shows the development of symptoms or signs of chronic venous insufficiency after DVT, being an important negative factor in the perception of quality life. Objectives: a possible relationship in the follow-up after DVT between the presence of DD high levels at 6 months, before stopping anticoagulant therapy (ACO) and the presence of TR or SPT.

Material and method: Prospective observational study of patients diagnosed with DVT first episode between January 2009-June 2011, performing at six months DD, doppler monitoring in the affected limb and clinical control before stopping anticoagulation. We performed a descriptive analysis of the variables included in the study. Qualitative variables are expressed as percentages and quantitative variables as averages and standard deviations, for the mean comparison Student's t test was used and for proportions comparison the Chi square test using SPSS 11.0 software package.

Results: 44 cases were analyzed, mean aged was 62 years, 59% female. DVT was induced in 61.4% of cases, 13.7% history of fracture or trauma surgery in previous month, 38.6% over 3 days immobilization, 9.1% were taking oral contraceptives, 6.8% active neoplasia, 2.3% antiphospholipid syndrome. Other risk factors were: 36.4% varicose veins, obesity 47.7%, 41% basal limited mobility. The event features TVP showed: 79% total occlusion, several territories 66% (18% iliac-femoral, femoro-popliteal 47.7%) and one territory 34% (12% femoral, popliteal and 15.9% of junction saphenous 6.8%). TR was detected at 6 months in the 43´2% and SPT in 59%. Mean level follow-up of DD was 348 ng/ml (range 31-850), while in 25% DD < 150 and 52% DD < 250. Regarding the association between TR and the value of DD at 6 months before stopping anticoagulant therapy, DD breakpoints > 250 and > 500 did not find statistical significance, with p values 0.54 and 0.36 respectively. Regarding the association between SPT and the value of DD for the same cut points, we found no statistical significance with p values 0.163 and 0.141 respectively.

Conclusions: In our patients follow-up with DVT at 6 months of anticoagulant therapy, 43´2% shown TR and 59% SPT. Regarding the value of DD, 48% of patients have a value higher than 250 before the end of anticoagulation. We did not find association between DD high levels for breakpoints > 250 or > 500 and TR or SPT, although there is a trend towards greater partnership figures DD > 500 being more significant this association for SPT than for residual thrombosis. In the literature, recently have been described the lack of relationship between TR and DD elevation, as we observed in our series. Although the risk of recurrence has been reported in literature with elevated DD after ACO suspension, studies begin to appear also relate it to their elevation before suspending ACO. In our series, a high number of patients showed DD high levels therefore would have higher risk of recurrence after stopping ACO.

T-48
THROMBOEMBOLIC DISEASE RELATED WITH HORMONAL CHANGES IN WOMEN AT THE MONOGRAPHIC CONSULTATION OF THROMBOSIS AT UNIVERSITY GENERAL HOSPITAL OF CIUDAD REAL, 2010-2011

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Objectives: Identify the thrombotic events associated with hormonal changes in women at the monographic consultation of thrombosis at University General Hospital Of Ciudad Real, 2010-2011.

Material and method: Descriptive, retrospective study and observational of the patients diagnosed of thrombosis related to hormonal changes, that were attended in the monographic consultation of thrombosis of the University Hospital General of Ciudad Real in January from the 2010 to December of 2011.

Results: They were included a total of 25 patients, in 11 of them the phenomenon thrombotic had appeared associate to it takes of contraceptive oral, and in the 13 remainders to pregnancy or postpartum. The rank of age in the patients that took contraceptives was among 25 to 30 years (5 patient 41.7%), In pregnancy was of 35-40 years (5 patient 38.5%) and of 40-45 years (4 patient 30.5%). No significant association was found in relation to the obesity neither with the tobacco. The patients that had been in rest were 2 (16.7%) for the ones that took contraceptive and 4 (30.8%) for the pregnancy. A total of 5 was identified (41.7%) patient with thrombophilia of the patients that took contraceptive and to 5 (38.5%) in the pregnancy. In patients contraceptive takers deep vein thrombosis was present in 10 (83%), followed by superficial thrombosis in 2 (16.6%) and pulmonary embolism in 1 (8.3%) In the group of pregnant found DVT in 7 patients (53.8%), 2 (15.4%) pulmonary embolism, 1 (7.7%) venous thrombosis cava and 1 (7.7%) superficial thrombosis. The events occurred mostly in the second trimester 4 (30.8%), followed by the third and postpartum with 3 patients (23.1%) in each case. We found only 1 (7.7%) patient in the first quarter. Termination of labor so eutócica in 6 patients (46.2%), cesarean in 6 (46.2%) and 1 (7.6%) abortion. Treatment during pregnancy was in 12 patients (92.3%) with low molecular weight heparin, and one we opted for the temporary placement of a vena cava filter (7.7%).

Discussion: Is currently considered thromboembolic disease as a multicausal disease and several studies suggests that contraceptives use increases by 4 times the risk of thrombosis, thus blocking the chromosome 5 of dihydrofolate reductase by altering the metabolism of homocysteine. All the venous system of the lower extremities is vulnerable to thrombosis resulting from compression by the gravid uterus, especially during last trimesters, as in this study. It is considered that the older age group is associated as risk factor, but in this case, in patients taking oral contraceptives, the predominant range was 25 to 30 years. In pregnant between 35 and 45. Thrombophilia has been described as a risk factor but in these cases, it has been found in fact less than 50% The treatment of choice during pregnancy is the low molecular weight heparin, because of its greater plasma half-life, do not require laboratory testing of control and do not cross the placental barrier. In patients taking contraceptives and after

birth, treatment was individualized according to the type of thrombosis and associated risk factors.

Conclusions: The occurrence of thrombotic events with hormonal changes, such as oral contraceptives, pregnancy and puerperium, forces his close monitoring during this period to identify potential risk factors and use preventive measures if possible. The initial and early appropriate treatment is essential to avoid further complications.

T-49
PULMONARY EMBOLISM AND TUMORS. STUDY OF 345 PATIENTS

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Objectives: The aim of study was to know and analyze the relation between pulmonary embolism and tumors in our patients.

Material and method: We studied 345 patients in a retrospective study of patients with PE from 2005 to 2010 at the Hospital Nuestra Señora de Sonsoles (Ávila, Spain). There were excluded those patients without certainty PE diagnosis.

Results: Patients: 345. Males: 190 (mean age: 68.9 ± 15.3 years). Females: 155 (mean age: 60.5 ± 15.8 years). There are 91 (26.4%) patients with PE and tumors. We classify according to the moment that they appear in: a) Before PE: 59/345 (17.1%). Distribution according to histological race: adenocarcinoma (30), epidermoid (6), ductal carcinoma (6), haematological malignancies (5) and other (13). According to the anatomical location: digestive system (12), prostate (12), breast (7), lung (6), oropharyngeal (5), hematologic system (5), others (10). b) Simultaneously with PE: 18/345 (5.2%). Distribution according to histological race: adenocarcinoma (11), epidermoid (1) and other (6). According to the anatomical location: lung (5), digestive system (3), ginecologic tumors (2) and others (8). c) Later to PE: 14/345 (4.1%). Distribution according to histological race: adenocarcinoma (8), bladder (2) and other (4). According to the anatomical location: lung (5), digestive system (2), prostate (2), bladder (2) and others (3).

Conclusions: Patients with PE and tumors were 26.4%, predominantly adenocarcinoma. 1 of every 9 patients with EP will diagnose a tumor during the revenue or his follow-up. *Other authors: J. Sesma, M.A. Budiño, C.L. Machado, H. Mendoza, M.C. Calleja, M.J. Álvarez-Moya, T. Carmona, E. Barroso, M. Cañizo, M.D. López-Fernández and J. Arnáiz.

T-50
UPPER-EXTREMITY VEIN THROMBOSIS NOT ASSOCIATED WITH INTRAVASCULAR DEVICES

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Objectives: Analyze the characteristics of the patients with upper-extrelity vein thrombosis who are not related to intravascular devices.

Material and method: Retrospective multicenters study with follow-up of the patients' cohort of the people of Salamanca, León, Soria, Ávila and Segovia (Castilla y León, Spain). The cases were obtained of the Department of Clinical Documentation of the each Hospitals. We evaluated the clinical histories of patients. Patients with intravascular devices were excluded.

Results: Patients: 40. Males: 20 (mean age 59.1 ± 21.9 years). Females: 20 (mean age 64.4 ± 21.8 years). Location of the thrombosis: subclavian vein (21), basilic, cephalic and brachial veins (13), axillary vein (4) and yugular vein (2). The diagnosis methods were: ultrasound scan doppler: 34 (85%) and CT-angiography: 6 (15%). D-dimer was raised in 19/22 patients (86.4%). Eight patients (20%) have had thombophilia. Five patients (12.5%) has previous thromboembolic disease, three of them with thrombophilia. Twelve patients (30%) received previous thromboprophylasis. In 16 patients (40%) they associated to tumors. The histological race were: adenocarcinoma (5), epidermoid (5), haematological malignances (4), small cell lung (1) and papillary (1). The anatomical location were: lung (6), oropharyngeal (3), haematological (3), thyroid (1), bladder (1), breast (1) and prostate (1).

Conclusions: The subclavian vein is the most affected. Oncologic disease was present in 40% of the patients, prevailing lung and oropharyngeal locations (56%). 1 of every 5 patients have had thrombophilic situation. *Other authors: E. Fernández Pérez (León), V. del Villar Sordo (Soria) and C. Sanz Lobo (Segovia).

T-51
SUSPICION OF PULMONARY EMBOLISM IN THE EMERGENCY DEPARTMENT: WHEN IS IT NECESSARY TO ASK FOR D-DIMER TEST?

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Objectives: Analyze the requests for D-dimer (DD) asked from the Emergency Department in patients with suspected pulmonary embolism (PE), evaluating the indication according to the current guidelines.

Material and method: Descriptive study which analyzes the DD requests from the Emergency Department of the Lozano Blesa Universitary Clinical Hospital, during the period of 30 consecutive days (October 2011). Medical reports have been reviewed considering epidemiological data, comorbidity, PE clinical probability according to Wells scale, complementary tests, final diagnosis and clinical course.

Results: 100 requests were made during this period. Suspicion of PE was the reason for 72 patients, deep vein thrombosis (DVT) for 22 and no clear cause for 6. The mean age was 68.8 years (range 23-91), being 57% of them male. The main symptoms were dyspnea (62.5%), chest pain (27.7%) and syncope (22.2%). 7% of the patients presented hypotension (SBp < 90 mmHg), 35.2% tachycardia (HR > 100), and 44.8% basal O_2 saturation below 95%. DD was "negative" (< 500 µg/l) for 16 patients (22.2%). 15 of them (93.7%) had a low probability of PE according to Wells score (< 2 points). No CT pulmonary angiogram (CT-PA) was request. 80% of the patients were discharged from the Emergency Department with different diagnosis. Just one patient (6.3%) had intermediate probability of PE according to Wells score (2-6 points). EP was discarded by CT-PA, and the patient was discharged. DD was "positive" (> 500 µg/l) for 56 patients (77.8%). 44 of them (78.5%) had a low probability of PE according to Wells score. CT-PA was done in 6 patients (13.6%), confirming pulmonary embolism in 1 case (2.2%). 12 patients (29.6%)

were discharged. Another 6 patients (10.7%) had an intermediate probability of PE according to Wells score. CT-PA was made in 1 case (16.6%), confirming the diagnosis of PE. All the patients were hospitalized. Just 2 patients (3.5%) had high probability of PE according to Wells score (> 6 points). No CT-PA was requested. Both patients were hospitalized. No PE diagnosis was confirmed for the admitted patients. None of the discharged patients were readmitted within 6 months with diagnosis of PE.

Discussion: Pulmonary embolism is the most serious manifestation of venous thromboembolism (VTE), with an incidence of 1 case/1,000 people/year, and 12% mortality at 30 days. Early diagnosis is as important that there are several clinical probability scales. One of those is Wells score, which incorporates clinical items and risk factors. D-dimer test has a sensitivity above 95% for VTE, but low specificity (< 50%). It has a high negative predictive value, so < 500 µg/l levels discard the diagnosis of PE, but only when clinical probability is low. As recommended by the SEPAR guidelines, CT-PA must be indicated in moderate or high clinical probability cases, or in low clinical probability with high DD test. In the group of patients with negative DD, diagnostic attitude was according to current recommendations. However, the diagnostic procedure for the group of patients with positive DD should be noted, especially for those with intermediate or high clinical probability and with no CT-PA that discard EP. It is relevant to consider that DD is requested at the same time than another complementary test, which results can lead to the diagnosis of other pathologies.

Conclusions: According to data from our study, current guidelines are not followed for the diagnosis of pulmonary embolism in the Emergency Department of our Hospital. Therefore, we suggest creating a protocol for all cases of suspected pulmonary embolism, in order to improve the management of these patients.

T-52
DIFFERENCES IN THROMBOEMBOLIC DISEASE AMONG YOUNG PATIENTS AND PATIENTS OLDER THAN 50 YEARS OLD

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Objectives: To analyze clinical and epidemiological differences of venous thromboembolic disease (VTD) among patients older and younger than 50 years.

Material and method: Review of medical records of admissions with a diagnosis of VTD at discharge, for a period of two years.

Results: The results matched, placing first the group of patients younger than 50 years. The gender distribution was similar in both groups, about 50%. Stay average was 10.93-12.8 days. The weight average GRD was (1.4-1.59). Differences were statistically significant ($p < 0.05$) for those younger than 50 years; family history of VTD (1.9-0.4%), highest percentage of smokers (48-13.2%), hormonal contraceptives (20.4 -0%) and hormonal replacement therapy (HRT) (1.9-0.8%) We observed a tendency to suffer from thrombophilia disease on younger people and statistically significant findings for the presence of lupus anticoagulant (6.7-2.5%), protein C deficiency (3.8-0%) and protein S (3.8-0.4%), anticardiolipin antibodies (7.5-2.1%) and 20210 gene mutation (1.9-0.4%), with greater presence in over 50 years of heterozygous Factor V Leiden (0-1.6%). People younger than 50 years old present a predominance of deep vein thrombosis (DVT) infrapopliteal (22-6.8%) and upper extremity (4.9-0%) and higher percentage of treatment with acenocoumarol (90.7-71.8%) In elderly patients, we observed higher comorbidity: heart failure (0-15.9%), COPD (1.9-10.6%), stroke (1.9-16.9%), diabetes mellitus (5.6-24%), varicose vein (7.4-24.8%), predominance of DVT suprapopliteal (65.9-82.2%) and bedridden (1.9-16.3%). In the younger people group, there were no bleeding complications (0-7.3%), deaths (0-11%) or pregnancies. In all other variables studied, the differences were not statistically significant ($p > 0.05$). We observed more frequently in the younger people a personal history of DVT (13-10.2%), recent travel (3.7-1.2%), trauma (11.1-4.9%) and immobilization (24.1-14.2%). However, in people older than 50 years, there was a higher frequency of PH of pulmonary thromboembolism (0-4.1%), obesity (15/07/28%), orthopedic (0-1.2%) or abdominal surgery (1.9-3.3%) Young patients had no indications of cava filter, there were no cases of hematologic malignancy (0-3%) and only 2 cases were solid neoplasia of gynecological origin. Patients under 50 years old were admitted more frequently in the Short Stay Unit (SSU) (24.1-12.2%), predominantly in the month of June (20.4-7-7%), while older, were hospitalized in ward (74.1-80.5%) or home (1.9-5.7%), preferably in the month of April (3.7-13%).

Discussion: VTD is a serious and potentially deadly process. The series show a linear correlation between age and incidence, which is correlated in this group to found more patients older than 50 years (54-246 patients). In our analysis, there were more studies of inherited thrombophilia in the younger GROUP because these pathologies debut early. However, it WAS noted the increased frequency of heterozygous Factor V Leiden in patients over 50 years. As expected, in young patients, hormonal contraceptive use was more common, with a tendency to use HRT in the same group, associated, probably, to the treatment of early menopause. Treatment duration was longer in patients under 50 years because the presence of non-modifiable risk factors and increased frequency of bleeding complications in the longest-lived (involving the suspension of anticoagulation). Due to comorbidity, older patients were less frequently admitted to the SSU and their average stay was longer.

Conclusions: VTD is a common disease that presents high mortality and its incidence increases with age. Our series of patients show a higher frequency of inherited thrombophilia in young patients. In patients over 50 years, there is a higher presence of Factor V Leiden with a greater comorbidity, severity of disease and presence of precipitating factors.

T-53
TROMBOPROPHYILAXIS IN THE INTERNAL MEDICINE SERVICES OF THE REGION OF MURCIA. IS THE ADEQUACY OF TROMBOPROHYLASIS WITH LMWH MODIFIED AFTER AN EDUCATIONAL INTERVENTION?

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Objectives: To evaluate the adequacy of thromboprophylaxis in admitted patients and the influence of an educational intervention in its prescription.

Material and method: An observational study of thromboembolic prophylaxis was carried out in patients admitted to the Internal Medicine Service during the month of november (preintervention phase). Thromboembolic prophylaxis was evaluated once a day, from Monday to Friday, in 5 patients. The Pretemed scale and the Medenox and Exclaim criteria were used. Subsequently, the results of the observational study were reported to the doctors of the internal medicine service insisting in the need of evaluating the adequacy of thromboprophylaxis of admitted patients. Another

data collection was carried out following the same systematic as in the previous phase. Morales Meseguer, Virgen de la Arrixaca and Santa Lucia hospitals took part in this study. All three hospitals are located in the Region of Murcia.

Results: From a total of 291 patients evaluated in the first phase, pharmacological thromboprophylaxis was prescribed in 186 patients (64%) . It was not prescribed in 101 (36%). According to the scales used: PRETEMED, MEDENOX and PADUA, pharmacological thromboprophylaxis was used in 62%, 53% y 50% (respectively) in low-risk patients and in 67%, 72% y 86% (respectively) in high-risk patients. After the educational intervention and according to the previously referred scales, from a total of 271 patients pharmacological thromboprophylaxis was prescribed in 47%, 44% y 21% of low-risk patients and in 39%, 42% and 48% of high-risk patients.

Discussion: According to the Pretemed scale, after the informative intervention, thromboprofilaxis was less prescribed both in high-risk patients (adequate prescription) and in low-risk patients (inadequate prescription). According to the Medenox criteria, the results obtained were the same as those obtained by Pretemed: after the educational intervention thromboprofilaxis decreased in high-risk patients (adequate prescription) and in low-risk patients (inadequate prescription). The results obtained following the Padua criteria were the same as those of Medenox and Pretemed: after the educational intervention prescription decreased in those patients classified as high-risk patients (adequate prescription) and also in low-risk patients (inadequate prescription). As a general assessment, any of the three scales used in the educational intervention entails decreasing of inadequate prescriptions (in low-risk patients) but it also reduces adequate prescriptions (in high-risk patients).

Conclusions: 1. An adequate prophylaxis is only achieved in 67-86% of high-risk patients according to the different scales used in the preintervention phase. After the explanatory intervention, adequate prophylaxis in high-risk patients decreased to 39-48%. 2. As for low-risk patients, inadequate prescription was used in 50-62% of the cases. After the intervention, inadequate prophylaxis decreased to 21-47%. 3. These data take us to reflect on the adequate knowledge of the risk scales among doctors and to avoid indiscriminate prescription of this prophylaxis. 4. After the intervention, inadequate prescriptions decreased, but it contributed as well to avoid some adequate prescriptions in high-risk patients.

T-54
UTILITY OF THE IMPROVE RISK SCALE AND DOSE MODIFICATION OF THROMBOPROPHYLAXIS ACCORDING TO THE RISK OF BLEEDING

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Objectives: To evaluate whether the reduction of the doses of LMWH thromboprophylaxis in patients at increased risk of bleeding according to the risk scale of Improve study and validate the utility of this risk scale.

Material and method: Observational study of patients admitted to Internal Medicine service. The first 5 consecutive patients who did not need anticoagulant therapy were collected daily and the Improve risk score was considered. Diagnostic characteristic of this score was also evaluated. The following hospitals from the Region de Murcia participated in the study: Hospital Santa Lucía (Cartagena) and Hospitals Morales Meseguer and Virgen de la Arrixaca (Murcia).

Results: On admission day, 44% of patients with a high-risk scoring in Improve scale were prescribed a dose of 20 mg of enoxaparin, while this doses was used in 28% of patients with a low-risk. On the fourth day of admission, 62% of patients with a high-risk received doses of 20 mg of enoxaparin, while this doses was considered in 20% of patients with a low-risk. In those four days there were 5 bleeding, 4 of them in patients with a high-risk, only one of them on 20 mg/d of enoxaparin doses. Improve risk scale showed a sensitivity out of 80%, 92% of specificity, and a positive likelihood ratio of 9.9, which implies that it is able to predict bleeding in patients at high risk. The area under the ROC curve was excellent, 0.86 (0.65-1.00).

Discussion: Although the Improve risk scale of bleeding has been useful in predicting bleeding, in medical patients estimated with an increased risk of bleeding, a lower doses of LMWH is given. Similarly, the majority (80%) of patients in whom bleeding occurred in the early days of thromboprophylaxis were at high risk of bleeding.

Conclusions: the risk scale of bleeding described in Improve study could be useful to consider a dose reduction of thromboprophylaxis with LMWH in hospitalized medical patients.

Table (T-54)

p < 0.001	High-risk IMPROVE	Low-risk IMPROVE
Bleeding in 4 days	4 (22%)	1 (0.6%)
No bleeding	14 (78%)	160 (99%)
Total	18	161

T-57
STUDY OF VENOUS THROMBOEMBOLIC DISEASE AT A SHORT STAY WARD OF INTERNAL MEDICINE

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Objectives: Short Stay Wards of Internal Medicine department represent an alternative to conventional admission and performs a close ambulatory follow up which allows a reduction of admission length. One of the pathologies which may be managed at those units is venous thromboembolic disease (VTD). Our objective is to describe the experience of the Short Stay Ward of Internal Medicine at Hospital University Insular of Las Palmas de Gran Canaria in relation with this disease, between March 1st, 2010 and February 29th, 2012.

Material and method: Descriptive study of characteristics of VTD admitted during one year at the Short Stay Ward, which consists of six beds (one hundred and twenty-six patients out of a total of eight hundred and fifty-one). Statistical analysis was performed using SPSS 19.0.

Results: The pathologies which are found include deep venous thrombosis (DVT) (83.3%) and pulmonary embolism (EP) (16.7%). During hospitalization, a 4% of the patients diagnosed of DVT presented EP as complication. Average age of VTD patients is 59.3 years (range: 16-95), 49.2% of whom were males. Average stay is four days (range: 0-29), being median and mode of 4.75% of patients stays four or less days. Most frequent risk factors are: hypertension (38.9%) tabaquism (38%), obesity (29.4%), dyslipidemia (25.4%), diabetes mellitus (19%), previous venous thromboembolic disease (VTD) (12.7%), immobilization (16.7%) and active neoplasia (12%). In order to analyze the basal situation of the patients, Barthel scale or basic activities of daily living (70% independent), instrumental activities of daily living or

Lawton scale (53% autonomous) and Pfeiffer scale for cognitive state evaluation (86.4% free of cognitive impairment) were used. By analyzing the Charlson comorbidity index, we find 73.9% patients free of comorbidity and 15.2% patients with high punctuation. In terms of ethiology, a 52.4% of idiopathic VTD is found. The rest of VTD is associated to immobilization (12.7%), active neoplasia (11.1%), hormonal-related disorders (androgenism, contraceptives use…) (5.6%), lower extremities trauma (4%), lower extremity fracture (3.2%), thrombophilia, postsurgical and recent medical pathology (2.4%). The study of idiopathic VDT consists of a screening for neoplasia and/or thrombophilia. 45.5% idiopathic VDT patients are studied for neoplasia screening. 7.6% idiopathic VDT patients are diagnosed of neoplasia (gastric cancer, pulmonary cancer and unknown origin metastatic liver). Thrombophilia study is performed in 27.3% of idiopathic VTD, 36% of which shows abnormalities (ATIII deficiency, hyperfibrinogenemia, S and C protein deficiency, hyperhomocysteinemia, 20210 A protein, combined thrombophilias). 79% idiopathic VTD no abnormalities are found.

Conclusions: Venous thromboembolic disease is a pathology which allows a short admission for most of the patients without short term readmission demand related to recurrence. The profile of the patient who is admitted consists in most of cases of autonomous and independent patient so that is a good candidate for ambulatory follow up. In half of the patients an evident trigger is not found at admission, so further investigations are needed for neoplasia and thrombophilia screening. Nevertheless, a high percentage of cases continues without an evident ethiology.

T-58
THROMBOPHILIAS IN PATIENTS WITH VENOUS THROMBOEMBOLIC DISEASE AT HOSPITAL UNIVERSITY INSULAR OF GRAN CANARIA

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Objectives: Thrombophilias are characterized by a predisposition to hypercoagulability state and therefore to venous thromboembolic disease (VTD). Those are classified as inherited and acquired. Main inherited thrombophilias include: antithrombin deficiency, S protein deficiency, Leiden's V factor, 20210A mutation of prothrombin, hyperhomocysteinemia secondary to C677 gene mutation (metyltetrahydrofolate reductase), incremented levels of VIII factor. Acquired ones include: antiphospholipid syndrome, lupus, hyperhomocysteinemia and Behçet disease. Determine the clinical characteristics of VTD inpatients admitted at the Short Stay Ward of the Hospital University Insular of Gran Canaria whom presented a primary or secondary thrombophilia: risk factors, comorbidity, methods used for diagnosis, type of thrombophilia and complications next 6 months after discharge.

Material and method: Retrospective study of VTD patients admitted at the Short Stay Ward of the Hospital University Insular of Gran Canaria between March 1st, 2010 and February 28th, 2012; both included. Statistical analysis was performed using SPSS 19.0.

Results: The number of patients admitted with diagnosis of VTD was 126. Deep venous thrombosis (DVT) represented in 83.3% of the cases and Pulmonary Embolism (PE) in 16.7% of them. By the other hand, 52.4% of those patients were classified as idiopathic VTD. In 27.3% of these patients, a thromphilia screening was performed, with positive findings in 20 (36%). In relation to basal characteristics of those patients with thrombophilia, the average age was 53 ± 19.2 years old (mode: 40 years old). There was a predominance of male gender (55% against 45%). The most common comorbidities were: dyslipidemia (15%), obesity (25%), hypertension (25%), diabetes (15%) and previous VTD (10%). The mean hospital stay was 3.75 days. The most prevalent thrombophilias were: lupic anticoagulant (25%), Leiden's factor V (15%), antithrombin III deficiency (10%), S protein deficiency (10%) and combined thrombophilias (15%). Less common cases of C protein deficiency, elevated VIII factor, hyperhomocysteinemia, hyperfibrinogenemia and 21210 prothrombin gene mutation were described too. Analyzing the prevalence of thrombophilias by gender, we find up to 50% of lupic anticoagulant in men, compared to 14% in women. Finally, the incidence of complications was very little. Only one patient (5%) required readmission within the first three months after discharge because of DVT recurrence.

Conclusions: In opposition to data published in previous scientific literature, our study showed a higher prevalence of thrombophilia in men, being lupic anticoagulant the most common abnormality. The Short Stay Unit of Internal Medicine provides a close ambulatory follow up which minimize the risk of complications. That explains a lower rate of readmission than expected for this ward.

T-59
ACUTE PULMONARY EMBOLISM: PULMONARY HYPERTENSION AND COMPLICATIONS

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Objectives: To evaluate the clinical and haemodynamic features of the pulmonary embolism (PE) in our setting, the distribution of the risk factors for PE, its ecocardiographic profile, the use of diagnostic tests and the treatments applied.

Material and method: This is a observational descriptive and longitudinal prospective study. We recorded 140 consecutive patients with acute symptomatic PE confirmed by clinical tests plus chest CT and/or perfusion scintigraphy that were admitted at hospital from February 2004 until November 2008 and not hospitalized at the time of diagnosis. We recorded clinical, tests, laboratory, treatment and monitoring variables to fill up the specifically designed form. The monitoring time lasted 4 months or until the patient died. Data were analysed with SPSS 19.0.

Results: The mean age was 66 years (SD 16.3) and the 51.4% were female. The 87.9% had previous diseases: 77% had Body mass index > 25 (and 37% BMI > 30), 43% hypertension and 9.3% diabetes. PE risk factors: cancer 12.1%, surgery 7.9%, immobilization 12.9%, previous PE or deep venous thrombosis 12.9%, air travel 1.4%, contraceptives 4.3%, varicose veins 17.9%, thrombophilia 16.4%. Clinical variables: leg edema 21.4%, chest pain 50.7%, haemoptysis 12.1%, fever 10%, dyspnea 78.6% and syncope 22.9%. Tests variables: echocardiogram performed in the 71.4%: right ventricular (RV) diameter 24.15 mm (SD 6.9), pulmonary artery systolic pressure (PASP) 45.29 mmHg (SD18.1). ECG (99.3%): mean heart rate 95.3 bpm, right bundle branch block 32.1%, S1Q3T3 22.5%, negative T waves V1-V4: 38.7%. Arterial blood gases (80%): mean pO2 63.18 mmHg (SD 14.6), pCO2 34.12, O2 sat 90.52%. Perfusion scintigraphy (69.1%): high probability for PE 62.4%. Pulmonary angiography (22%): PA pressure (mmHg): systolic 60.38, mean 36.63. Chest CT (59.3%): main arteries multiple thrombosis 50%, multiple lobar arteries 25%, multiple segmental arteries 15.3%, single mean artery 2.8%. Chest radiography (97.1%):

cardiomegaly 42.3%, Hampton's hump 3.6%, pleural effusion 21.9%. Venous US (83.6%): proximal veins thrombosis 30.7%, distal veins 7.1%. Laboratory: mean D-dimer value 2.285, creatinine 1.06, troponine-I 0.20. Treatment variables at the acute phase of PE: inferior vena caval filter 18.6%, low-molecular-weight heparin (LMWH) 70.7%, unfractioned heparin (UFH) 54.3%, oral anticoagulants (OA) 1.4%, thrombolysis 17.3%. Chronic phase: compression stockings 25.2%, LMWH 26.1%, OA 89.1% (mean duration 7.17 months). Monitoring variables: mean duration 8.58 months, cause of cessation: death 10%, consultation 90%, relapse 2.9%, adverse effects: haemorrhage 17.3% (mean INR 3.42).

Discussion: Comparing to other studies, the distribution of the risk factors for PE is homogeneous, except for the high rate of thrombophilia. The CV risk factors are concordant with the age, but high BMI is more frequent in our study. Basing on the clinical variables, we can say that these PE are of great magnitude. We have found a mortality of 10% that seems high bearing in mind the age and low comorbidity, but the number of patients isn't high enough to make mortality curves.

Conclusions: In our study, the population that suffers a PE isn't old, but almost 88% had previous disease, among which elevated BMI stands out (overweight 77%, obesity 37%). We have found a high percentage of thrombophilia carriers (16.4%). Dyspnea is the most frequent symptom (78.6%) but the syncope (22.9%), chest pain (50.7%) and tachycardia rates also are important. Concerning the diagnostic tests, the elevated PASP detected by ecocardiogram, the high percentage of ECG abnormalities, proximal thrombi in extremities at US and in proximal pulmonary arteries at CT and the high values of troponin and d-dimers are highlight too.

T-60
ANALYSIS OF TREATMENT AND COMPLICATIONS OF THROMBOEMBOLIC DISEASE

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Objectives: To analyze the treatment and complications of patients diagnosed with thromboembolic disease (TED) in the area of Pamplona after three months follow-up.

Material and method: We have collected all new cases diagnosed, treated and followed at the department of Internal Medicine-B of Complejo Hospitalario de Navarra and registered at RIETE until March 1, 2011. We included patients of both sexes, regardless of age, with objective diagnosis of TED based on at least one imaging test.

Results: We analized 669 cases. 44.46% (297/669) were deep vein thrombosis (DVT), 42.6% (285/669) pulmonary embolism (PE) and 12.85% (86/669) both DVT/PE. In the acute phase low molecular weight heparin was used in 90% of cases, especially enoxaparin (639/669). Unfractionated heparin (30/669), fibrinolytic (2/669) and pentasaccharides-fondaparinux (2/669) were used in the remaining 10% cases. For the long-term therapy oral vitamin K antagonist was used in 86.4% (578/669) and enoxaparin in 11.6% (78/669). Only the 0.9% (6/669) underwent insertion of vena cava filters for recurrent thromboembolism despite anticoagulation therapy. During the three month follow up, 31.8% (213/669) had some type of complication. The most common was bleeding which occurred in 19.2% patients (41/213). The 36.6% (15/41) had gastrointestinal origin, 24.4% (10/41) from muscle and the remanding cases 39% (16/41) of urological location, cerebral, retroperitoneal and others. There was major bleeding in 41.5% cases and severe in 58.5%. The 39% (16/41) cases presented bleeding despite having the INR below the therapeutic range. The next most common complication, thromboembolic recurrence, occurred in 18.3%. 59% (23/39) which as DVT and 41% (16/39) the form of PE. When relapse happened, only 30.7% (12/39) completed anticoagulant therapy. Mortality was 16.74% (112/669). The causes of death were as follows: 19.6% (22/112), 11.6% (13/112) PE, 10.7% (12/112) bleeding and 58% (65/112) other reasons.

Discussion: The analysis of the type of treatment and complications during follow-up three months show that the characteristics of patients admitted in our department is very similar to validated national studies.

Conclusions: Enoxaparin was used in 90% of cases in the acute phase of treatment and vitamin K antagonist in 86.4% of cases in the long-term treatment. In the 3 months follow up, 31.8% of patients had some type of complication after the initiation of anticoagulant therapy. Bleeding was the most prevalent complication (19.2%), especially of gastrointestinal origin (36.6%). Mortality was 16% and in contrast to the complications, the cause bleeding was the less frequent cause of mortality (10.7%).

T-61
THROMBOEMBOLIC DISEASE IN PREGNANCY

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Objectives: Thromboembolic disease (TED) is 10 times more common during pregnancy and puerperium than in nonpregnant women. It is preventable and treatable, but in spite of maternal mortality have decreased in recent years, it is still the most common cause of death in pregnant and puerperal women. We describe the clinical and epidemiological features of pregnant and puerperal women who develop TED during last 6 years in our hospital. We review the predictive factors for developing during pregnancy and puerperium and analyze the role of the multidisciplinary approach in these patients.

Material and method: Retrospective and descriptive analysis of pregnant and puerperal women with TED that were cared for directly by the department of Internal medicine or consulting for obstetrics during last 6 years (January 2007-May 2012). We included pregnant and puerperal women with objective diagnosis of TED based on at least one imaging test.

Results: 9 patients were analyzed with mean age of 29.2 years. 6 of the events occurred during pregnancy and 3 in puerperium.

Table (T-61)

vein thrombosis	Pulmonary embolism Total			Deep venous thrombosis		Cava vein thrombosis	Ovaric
Pregnancy	1	4	0	1	6		
Puerperium	1	0	1	1	3		
Total	2	4	1	2	9		

4 of the patients had obstetric history: 3 of them had history of abortions and 1 had severe preeclampsia during a previous pregnancy. Only one of the 9 patients had kept rest for muscle problems before the thromboembolic event. 1 of the events was located on cave and iliac veins, 4 of them were deep vein thrombosis (DVT), 2 on one iliac vein and femoral system, other 2 on femoral system without affectation of the iliac vein, other 2 were ovarian vein thrombosis and last 2 pulmonary embolism (PE). In 4 patients there was a lupus anticoagulant positive determination in the acute phase, but it was negative in the second. Only in the patient who had thrombosis in the cave vein was performed fibrinolysis followed by intravenous heparin. The other 8 patients received low molecular weight heparin in the acute treatment. In puerperal women simultaneously began treatment with acenocumarol. During admission patients were followed by both internist physician and obstetrician. Short term outcome was favorable except for cave vein thrombosis, which developed a postphlebitic syndrome.

Discussion: The clinical assessment scales available outside pregnancy are not validated in pregnancy so that the diagnosis of TED should be made based on clinical suspicion using the diagnostic tools available at each hospital. It can be used the necessary radiological tests assessing the risk-benefit for the mother and fetus. The management of TED in pregnancy is similar to nonpregnant patients. They should be treated in the acute phase with low molecular weight heparin or sodium heparin.

Conclusions: It is necessary to evaluate all suspected TED during pregnancy and puerperium due to high morbidity and mortality involving the mother and fetus. This is a clinical situation that requires multidisciplinary approach between internist physician and obstetrician. Also we want to note the unusual location of thrombosis in 3 of our patients confirming the tendency extensive thrombosis and involvement of the pelvic region.

T-62
NON-PROVOKED VENOUS THROMBOEMBOLISM: OUTCOMES AT FIRST THREE MONTHS OF DIAGNOSIS

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Objectives: Non-provoked venous thromboembolism (VTE) has a high incidence of recurrence after anticoagulation (AC) is stopped. It increases continuously with time, and there is no clear data on what group of patients could discontinue AC with a low risk of recurrence. Moreover, scarce information is available about outcome of non-provoked VTE in the first 3 months, when the patient is still on AC. Therefore, we evaluated the clinical characteristics, co-morbidity and prognosis of non-provoked VTE and compared it with a group of patients with secondary VTE at the first three months of diagnosis.

Material and method: Registro Informatizado de Enfermedad Tromboémbólica (RIETE) is an ongoing, prospective registry of consecutively enrolled patients with objectively confirmed, symptomatic, acute VTE. We compared the clinical characteristics of patients diagnosed with non Provoked VTE with those of patients with secondary VTE in the first three months of treatment.

Results: 39,921 patients were included. 18,029 (45.1%) were non-provoked VTE and 21,902 (54.9%) were secondary VTE. In the non-provoked VTE group, 8,922 (49.5%) had pulmonary embolism (PE) and 9,107 (50.5%) had deep vein thrombosis (DVT) while in the secondary group 10,766 (49.2%) had PE and 11,126 (50.8%) patients had DVT. Median age for non-provoked PE was 70 years, 48.5% was men, 14.8% had chronic heart failure, 19.5% chronic renal failure and 0.7% recent major bleeding, while secondary PE median age was 66 years, 44.2% was men, 8.5% had chronic heart failure, 17.5% chronic renal failure, and 3.5% had recent major bleeding (RMB) ($p < 0.001$). Data for Non-provoked DVT were as follows: 59.3% were men, median age was 64 years, and 0.5% had RMB ($p < 0.001$) while for secondary DVT were: 46% men, median age: 63 years, and 3.4% had RMB ($p < 0.001$). There were more patients with previous VTE in the non-provoked VTE group ($p < 0.001$). The initial treatment was similar in both groups, but more inferior vena cava (IVC) filters were used in secondary VTE patients ($p < 0.001$). At long term, LWMH was more used in secondary VTE than in idiopathic VTE. LWMH Doses were similar in both groups, as was the median INR.Multivariate analysis confirms that non-provoked VTE is associated with less major or mortal bleeding, fatal PE and recurrent VTE in patients with EP an in patients with DVT.

Discussion: 45% of patients had non-provoked VTE. The percentage of patients with previous VTE was higher in non-provoked VTE and initial treatment was similar in both groups, but more IVC filters were used in patients with secondary VTE. Recurrence, bleeding and death at 90 days were much more frequent in patients with secondary VTE. Multivariate analysis confirms that idiopathic VTE is associated with better prognosis both in patients with EP and in patients with DVT.

Conclusions: Our study confirms that non-provoked VTE is associated with better prognosis than secondary VTE.

T-63
VALUATION OF THE RESULT OF A TRAINING PROGRAM IN TROMBOPROFILAXIS IN THE LAST 6 YEARS IN A SERVICE OF INTERNAL MEDICINE

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Objectives: This is a valuation of fulfillment of prophylaxis of venous thromboembolic disease in patients admitted to an Internal Medicine Service and a valuation of the degree of improvement that involves the implementation of training activities.

Material and method: Review of the medical histories and treatments of the patients admitted in the Internal Medicine Service of the Hospital Universitario Miguel Servet of Zaragoza, in 4 moments: The first in October 2006. The second in December 2006 after the completion of a clinical session on trombophrophylaxis. The third in June of 2011. The fourth in May of 2012 after creation and teaching of a protocol of thromboprophylaxis The indications and dose of low molecular weight heparin is decided on the basis of the recommendations of the ACCP and PRETEMED criteria.

Results: 1) October 2006: 100 patients. 12% oral anticoagulation with acenocoumarol or low molecular weight heparin at therapeutic doses. The prophylaxis of VTE in 70% of the patients was considered correct and in the 30% incorrect. 2) December 2006: 80 patients. 20% oral anticoagulation with acenocoumarol or LMWH at therapeutic doses. The prophylaxis of VTE in 76.3% of the patients was considered correct and incorrect in the 23.7%. 36.3%, of which 13.8% in the dose was not recommended 3) June 2011: 96 patients. 35.4% oral anticoagulation with acenocoumarol or LMWH at therapeutic doses. Overall, 73% of patients collected in June 2011 were considered correct prophylaxis with LMWH and 27% incorrect. 4) May 2012: 114 patients. 26.3% oral anticoagulation with acenocoumarol or LMWH at therapeutic doses. The prophylaxis of

VTE in 77.9% of the patients was considered correct and incorrect in the 22.1% (inappropriate dose in the 3.5%) The mean age was 76.5 ± 13 years, 53.5% were women. The average stay was 11.7 ± 9.7 days, 4.9 ± 6.7 days bedrest, 5.4 ± 8.1 days relative rest, 1 ± 3.2 days without rest. 67.5% stay more than 7 days. The average score according PRETEMED was 5.3 ± 3.2 points. 69.3% had scores greater than or equal to 4. 56.8% patients had at least 2 chronic diseases by the Spanish group of Comorbidity. 83.2% of patients took more than 4 drugs and 70.8% at least one psychoactive drug. 34.5% of patients had attended the emergency at least 2 times the previous year and 32.7% urgency. The average number of visits to the emergency room was 2.3 ± 2.6 days. The average number of hospital admissions was 1.2 ± 1.4 days.

Discussion: It reveals that thromboprophylaxis is inadequate in nearly a quarter of the patients and the inadequacy is due, in most cases to overuse. It confirms the need to develop strategies to increase the completion rate and the importance of learning. We propose an algorithm that facilitates assessment of the risk of VTE in medical patients following the recommendations of the guide PRETEMED and the ACCP.

Conclusions: VTE is a disease of high incidence, and it is essential an adequate prophylaxis. It is demonstrated the importance of medical training programs It is noteworthy that a high percentage of our patients are elderly and have multiple pathologies that hinder their clinical management.

T-64
SPLENIC PORTAL AND MESENTERIC VENOUS THROMBOSIS IN AN AREA HOSPITAL

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Objectives: To present the clinical, analytical characteristics and treatment of patients diagnosed with venous thrombosis (VT) of the portal system and mesenteric vein in an internal medicine department.

Material and method: A retrospective study of a cohort of patients diagnosed with mesenteric and portal venous system thrombosis from January 2006 to December 2011 at Reina Sofia University General Hospital was performed. Only those cases whose diagnosis was confirmed by an image study were included. The data were processed using the SPSS 15.0 software.

Results: 16 patients diagnosed of splenic portal axis and mesenteric VT were admitted to our hospital between 2006 and 2011. The 68.8% were men and 31.3% women with a mean age of 68.13 ± 18 years. The average hospital stay length was 9.94 ± 5 days. The diagnosis was obtained by Doppler ultrasound in 31.3% and CT angiography in 68.8% of cases. In those patients who underwent CT angiography cavernous portal was found in 18.8%, ascites in 43.8% and splenomegaly in 43.8%. As to the extension in the portal venous system: 56.3% affected portal, 18.8% mesenteric 18.8%, 6.3% splenic portal, 6.3% mesenteric portal and 12.5% splenic portal and mesenteric. The degree of obstruction was partial in 56.3%, complete in a 6.3% and 37.5% was unspecified. Regarding to the causes: 25% showed cirrhosis, chronic liver disease 12.5%, 31.3% hepatocellular carcinoma, pancreatic carcinoma 12.5%, 6.3% other tumors (colon carcinoma, myeloproliferative syndrome etc), 12.5% pancreatitis, 6.3% spontaneous bacterial peritonitis and 6.3% biliary issues (cholangitis, etc...). The main complications presented were: upper gastrointestinal bleeding in 6.3%, hydropic decompensation in 6.3%, intestinal ischemia in 18.8%, hepatic encephalopathy in 12.5%, spontaneous bacterial peritonitis in 6.3% and biliary issues in 18.8%. The most remarkable laboratory results were a total bilirubin level of 2.53 ± 3 mg/dl, prothrombin activity 14% ± 79.69, alkaline phosphatase 137 ± 195.88 IU/L, aspartate aminotransferase 73.38 ± 68 U/L, creatinine 1.02 ± 0.2 mg/dl, albumin 3.12 ± 0.5 g/dl and hemogolbine 12.41 ± 2 g/dl. A conservative treatment was chosen in 56.3% of cases and anticoagulation was started in 43.8%. The hospital mortality was 18.8%.

Discussion: The liver receives a dual blood supply a 70-80% from the portal vein. In the adult population splenic portal axis thrombosis is related to multiple causes such as: malignant disease (liver and pancreatic carcinoma, liver metastases, myeloproliferative disorders and other tumors), inflammatory or infectious abdominal processes (pancreatitis, cholangitis), cirrhosis, splenectomy, acquired hypercoagulable states (oral contraceptive, pregnancy) or hereditary (factor V Leiden mutation, prothrombin gene mutation, antithrombin III deficiency, antiphospholipid syndrome), and trauma. Venous thrombosis can cause a partial or complete obstruction and can affect any portion of the portal venous system. The evolution may be acute or chronic, in this case the long evolution develops small vascular structures that represent collateral circulation (cavernous portal). The association of splenic portal axis and superior mesenteric vein thrombosis is rare but has a high mortality. The CT angiography is the best diagnostic tool because it allows to know the extension and commitment degree of thrombosis. The most feared complication is intestinal ischemia that appears up to 15% of cases. The treatment is early anticoagulation, surgery when necessary and thrombolysis in selected cases.

Conclusions: The outcome of the portal system thrombosis is variable and depends on the cause and time of evolution. The establishment of early anticoagulant therapy can be successful, especially if there is no established intestinal ischemia.

T-65
ASSOCIATION BETWEEN LEVELS OF HIGH-DENSITY LIPOPROTEIN CHOLESTEROL AND BIOMARKERS OF PULMONARY EMBOLISM

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Objectives: To investigate the existence of any association between levels of High-density lipoprotein cholesterol (HDLc) and biomarkers of thrombosis as fibrinogen, D-dimer or C-reactive protein (CRP) in patients with acute pulmonary embolism (PE). To evaluate if there is any association between HDLc levels and the severity of PE and mortality.

Material and method: In this cross-sectional study we included 131 patients diagnosed with symptomatic pulmonary embolism admitted to the hospital between 2007 and 2011. The diagnostic was assessed and confirmed by computed tomography angiography (CT). The severity of PE according to their location, central (saddle or at least one main pulmonary artery) or distal (segmental or subsegmental arteries), and hemodynamic status determined by Simplified Pulmonary Embolism Severity Index (sPESI) were assessed at the recruitment. Moreover, plasma levels of D-dimer, fibrinogen, CRP and a standard lipid profile were also considered.

Results: We observed that patients with acute PE had low HDLc concentrations (36.3 ± 14.8mg/dl). No statistical differences were observed according to the HDLc with major cardiovascular risk factors such as hypertension, smoking or diabetes. HDLc was inversely associated with fibrinogen ($r = -0.219$, $p = 0.033$) and CRP ($r = -0.247$, $p = 0.017$). Assessing the severity of PE, the individuals with high sPESI (> 3) had higher CRP concentrations than individuals with low sPESI (11.1 ± 11.1 vs 4.49 ± 5.1, $p = 0.013$). On the other

hand, HDLc was not associated with the sPESI. Also, D-dimer levels were independent of HDLc concentrations and CRP (p = NS for all). Patients with acute central PE had lower, but not significantly, HDLc concentrations compared with individuals with acute distal PE (35.1 ± 12.9 vs 39.8 ± 20.6 mg/dl, p = NS). We observed that patients who died after one year of follow-up had lower HDLc concentrations than survival group (24.5 ± 7.9 vs 37.3 ± 15.4 p = 0.028).

Discussion: Venous thromboembolism is a frequent multicausal and potentially fatal disease. Clinical research in patients with acute PE has improved their clinical prognosis due to the early diagnosis and appropriate therapy. Stratifying risk management according to some clinical manifestations may decrease the burden of disease. In fact, clinical biomarkers, like troponin I or D-dimer are strongly related to worse clinical prognosis. Translational investigation focused on HDL particle has shown atheroprotective effect related to inflammation, thrombotic and oxidative stress. There is a lack of evidence regarding the HDL concentrations in the acute effect of PE patients. In this study we observed an inverse relation between HDL and inflammatory, thrombotic markers and the prognosis of PE. Furthermore, the HDL concentrations are important in the localization and severity of PE. Our results reinforce the clinical assessment of these parameters in PE patients.

Conclusions: We have observed that HDLc is associated with inflammatory and thrombotic markers, as well as with the severity and prognosis of patients with acute PE. Our results reinforce the importance of HDLc assessment in venous thromboembolism.

T-66
HYPOPLASIA OF THE VENA CAVA: A REPORT OF SEVEN CASES

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Objectives: Inferior vena cava agenesis is a rare entity wich is often found out in vein thrombosis studies. This agenesis is a congenital malformation of the venous system that takes place during de embryological development, and in 90% affects the suprarenal segment. The clinical findings consist in acute deep vein thrombosis or chronic vein failure. Other findings are abdominal collateral circulation and unspecific abdominal pain.

Material and method: We present a series of seven patients with deep vein thrombosis diagnosis, in which a secondary inferior cava vein agenesis was found.

Results: A retrospective study of seven patients. Four male and three female, with ages among 24 and 63 years old (mean 32 years old). Nine episodes of deep vein thrombosis were found with the next location: 5 ilio-femoral; 2 right femoral; 1 right ilio-femoral popliteal; and one case left femoral popliteal. The diagnoses were made by doppler ultrasonography. Cava vein agenesis was found out with an angio-CT in five patients and angio MRI. In five times a flebography were needed. Hypoplasia of the cava vein was found in infrarenal cave two times. Thrombofilia secondary studies were negative in a half of the patients.

Discussion: Hypoplasia or agenesia of inferior cava vein is a malformation that rarely can be observed in patients with vein thrombosis. In this review we can see that in young people image studies help to rule out the presence of malformations in cava vein. These findings can make a change in therapeutically approach with a long or permanent anticoagulant therapy in order to avoid new thrombotic episodes and mortality.

Conclusions: These findings can make a change in therapeutically approach with a long or permanent anticoagulant therapy in order to avoid new thrombotic episodes and mortality.

T-67
ASSESSMENT OF VENOUS THROMBOEMBOLIC DISEASE MANAGEMENT IN A SINGLE CENTER ACCORDING TO CURRENT GUIDELINES

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Objectives: The aim of this work was to identify areas for improvement in the management of first episode of venous thromboembolism disease (VTE) in internal medicine department, according to Chest 2008 guidelines.

Material and method: Prospective observational analysis of VTE cases treated in our hospital during three consecutive years 2006-2008 (222,515 inhabitants attended), managed either as outpatient or hospitalized, with no specific protocol for diagnostic and therapeutic decisions. Patients included were over 14 years old; exclusion criteria: prior history of VTE, severe sepsis, ischemic heart disease or stroke in the last month or previous anticoagulation because other indications. Cases were included from Emergency Department or hospitalized patients. Sociodemographic data, underlying disease, diagnostic procedures, treatment received and evolution (for at least 18 months or until death) were collected.

Results: Fifty-nine cases were analyzed, 27 deep vein thrombosis (DVT) and 32 pulmonary embolism (PE) with or without DVT. Mean age was 58 years (SD ±18.8), 38 women (64.4%). 76.3% of patients had previous comorbidity. Six patients (10.2%) were receiving prophylactic doses of low molecular weight heparin before inclusion in the study. In patients with high probability of VTE according to Wells scale (n = 56), D-dimer was determined in 35 patients (62.5%), but in one patient of those with low probability (n = 3) it was not determined. No patients with DVT presented respiratory failure (by pulse oximetry), but 4 were tachycardic (14.8%) with both normal plain chest radiography and electrocardiogram, but only in one patient PE study was performed (perfusion/ventilation scan), and another patient died at follow up (advanced cancer). Five patients with PE (15.6%) presented severe hypotension (Systolic blood pressure < 90 mmHg), but only 2 patients underwent echocardiography, and fibrinolysis was not performed in any patient. Hypercoagulability test was not performed in four (30.8%) of the thirteen patients with no risk factors for VTE. In 35 of the 46 patients with at least one risk factor (cancer, recent surgery, immobilization, oral contraceptives or pregnancy), hypercoagulability test was performed (76.0%). Forty six patients developed VTE during a transient risk factor, maintaining anticoagulation treatment for more than nine months in 23 (50.0%), of whom two patients (8.7%) presented gastrointestinal bleeding complications (not severe).

Conclusions: We detect areas for improvement in the diagnosis of VTE, especially in excess of D-dimer determinations and default in evaluation of PE; also in the management of severe hypotensive patients. We can optimize the application of tests for hypercoagulability and the duration of anticoagulation (maintained in excess).

T-68
THORACIC CT ANGIOGRAPHY AND CLINICALLY SUSPECTED PULMONARY EMBOLISM: ONE-YEAR REVIEW OF CLINICAL CASES

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Objectives: To analyze the clinical characteristics of patients with suspected pulmony embolism (PE) who underwent multidetector CT Angiography (CTA) and to assess their diagnostic utility.

Material and method: The medical records of all clinical cases that occurred in hospital d'Igualada in 2010 were reviewed retrospectively. 160 patients, who underwent a thoracic CTA for suspected pulmonary embolism (PE) were analyzed. The evaluated parameters were: age, gender, d-dimer (high sensitivity method), Wells score (WS), final diagnosis, morbidity and follow-up beyond 3 months. The D dimer (DD) was stratified into four categories: < 500 ng/ml; between 501-1,000; between 1,001-10,000 and > 10,000. The results of the WS were grouped into three categories: low/medium/high probability. Data were analyzed using SPSS.

Results: The average age of the 160 patients studied was 74 years, 73 women and 87 men with average WS 2.62, cardiorespiratory (CR) comorbidity in 36% of the cases and malignant in 12.5% and median DD (n = 125) of 6,386 ng/ml. 38 cases were diagnosed with PE: 37 cases by CTA and 1 by angiography (24%). Other diagnoses were: 16.2% chronic respiratory disease, heart failure 12.5%, pneumonia 10%, malignancy 5.6% and miscellaneous 31.9%. CT scan provided diagnostic data in 73% of the overall series, 65% of the non-PE cases. PE group (n = 38): average age 72.3 years, 18 women (av. age 72.6) and 20 men. Average WS 4.7 (DE 1.9), low WS 10.5%, medium 73.7% and high 15.8%. Comorbidity CR 21% and 28.9% in neoplasms. DD median: 10,160 ng/ml, DD: negative 0; 500-1,000 ng/ml 0; 1,001-10,000 ng/ml 47.2% and > 10,000 ng/ml 52.8%. Predisposing factors: 11 neoplasms, 10 with sedentarism, 1 thrombophilia, 1 hemolytic a., 1 rheumatoid a. and 14 idiopathic cases. Non-PE group (n = 122): average age 74.5 years, 55 women (av. age 77.6 years) and 67 men. Average WS 2.0 (SD 2.0), low WS 56.5%, medium 41.8%, high 1.6%. CR comorbidity 40.2% and 7.4% neoplastic. DD was performed in 89 cases, median: 4,901 ng/ml, negative 3.4%, 500-1,000 ng/ml 12.3%, 1,001-10,000 ng/ml 70.8% and > 10,000 ng/ml 13.5%. During the follow-up period 2 cases of probable CT false negative were detected: a sudden death at 10 days and a documented episode of PE at 2 months.

Discussion: The prevalence of PE by CTA in our series was 23%, comparable to other series (15-35% prevalence). It was also the most frequent final diagnosis, which shows the correct clinical indication. Their high sensitivity (88%) and NPV (97.5%) confirm its role as a reference diagnostic test. On the other hand, the CTA helped to establish a diagnosis in 65% of the cases without PE. Women of the non-PE group were older (5 years) than the PE group. The factors associated with PE were malignant comorbidity and very high levels of d-dimer (> 10,000) while the predictors of non-PE were CR comorbidity, low clinical probability (EW < 2) and low DD levels (< 2xN). Using this DD value as a threshold for further study with CTA in patients with low or intermediate probability of PE could improve diagnostic accuracy.

Conclusions: 1. The prevalence of PE by CTA (23%) has been at the average reported in the literature and has been the most frequent final diagnosis. 2. The thoracic CTA has provided a high diagnostic performance: it has shown high sensitivity (88%) and NPV (97.5%) for the diagnosis of PE and has provided diagnostic data in 65% of patients without PE. 3. Neoplastic comorbidity and high levels of d-dimer (> 10,000) are factors associated with PE. 4. Cardiorespiratory comorbidity, low clinical probability (EW < 2) and low levels of d-dimer (< 2xN) are factors associated with non-PE.

T-69
CORRELATION OF THROMBOPROPHYLAXIS IN HOSPITALIZED NON-SURGICAL PATIENTS BETWEEN DIFFERENT MEDICAL SERVICES

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Objectives: To determine whether indication of thromboprophylaxis in medical patients (admitted in both Intern Medicine Services and Emergency Department) was adequate according to clinical guideline PRETEMED 2007 and compare the indication of thromboprophylaxis between the two services.

Material and method: Prospective observational epidemiological study. In tis study, 145 patients were selected including 10% of likely missing data, all consecutively admitted from the ED for medical causes. After calculating the risk of VTE in the ED, thromboprophylactic treatment was considered and subsequently was performed follow-up of instituted therapy during hospital stay. In addition to sociodemographic variables, we collected the following variables in all patients in our sample: 1. Personal history of VTE. 2. Previous anticoagulant treatment for the same reason. 3. Assessment of VTE risk according to the clinical guideline PRETEMED 2007. 4. Presence of contraindications to antithrombotic treatment. 5. Pharmacological thromboprophylaxis indication from ED. 6. Appropriateness of thromboprophylaxis indicated by the emergency physician responsible for admission. 7. Appropriateness of thromboprophylaxis indicated.

Results: 145 patients were initially enrolled, 8 patients were missed (5.52%) due to difficulty to follow-up. The gender distribution was 76 (55.47%) males and 61 (44.52%) women, with a mean age of 65 years old. The average hospital stay of patients was 9.84 days. Only one of them had a history of previous VTE, 18 (13.14%) were anticoagulated with warfarin and previously received a prior prophylaxis with low molecular weight heparin, 14 (10.21%) cases of arrhythmias. Of 137 participants, 73 (53.3%) patients received prophylaxis for VTE indicated by physician from ED. 46 patients (31.4%) did not treat with anticoagulant prophylaxis from the Emergency Department. There were 18 patients (13.14%) previously anticoagulated, in which anticoagulation was maintained. Enoxaparin subcutaneous was the drug employed (40 mg/24 hours). It was indicated thromboprophylaxis in 85 patients (62'04%) after the admission in the Intern Medicine Service, and it wasn't indicated in 43 (31'38%) of these patients. There were 9 patients (6'57%) previously anticoagulated, in which anticoagulation was maintained. Regarding to the indications included in the thromboprophylaxis guidelines, 3 patients (2'19%) didn't receive thromboprophylaxis from ED despite fulfilling standards criteria according to PREMETED guideline. 30 patients (27'9%) received thromboprophylaxis without criteria from the guidelines. In the Intern Medicine Service, there were 11 (8.03%) patients in whom prophylaxis was not performed despite having the criteria for this recommendation according to clinical guidelines, while 43 (31.39%) patients received thromboprophylaxis without criteria that recommend it. With regard to the correlation between indication of prophylaxis from the different departments, in 24 (17.52%) patients in whom prophylactic treatment was not indicated from the ED, received prophylactic anticoagulation during their hospital stay in Intern Medicine Service. In 13 (9.49%) patients who received thromboprophylaxis from the ED, this therapy was removal when they were admitted to Intern Medicine Service.

Conclusions: Almost half of all patients who were admitted to hospitalization from ED received thromboprophylaxis. According to current clinical guidelines, only 40% really required prophylaxis. At the moment of admission to hospital wards, the percentage of patients treated with heparin prophylaxis reaches 60%, many of them after removal oral anticoagulant therapy (OAC). In both the ED and Internal Medicine Service (IMS), the percentage of patients who received prophylaxis despite not fulfilling strict criteria is greater than non-indication of this therapy when patients fulfilled criteria. We observed a tendency to excessive prescription of thromboprophylaxis by all physicians (both ED and IMS).

T-70
AUDIT OF EMERGENCY DISCHARGE REPORTS IN PATIENTS WITH LOWER-EXTREMITY DEEP VEIN THROMBOSIS. COMPARATIVE ANALYSIS BETWEEN 2010 AND 2011

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Objectives: Evaluate the improvement in compliance with our hospital protocol about the management of patients with lower-extremity deep vein thrombosis (LE-DVT) without symptomatic pulmonary embolism (PE) before and after giving a basic education to the physicians involved in their medical care.

Material and method: 1) We listed all patients discharged with LE-DVT diagnosis from Emergency Department (ED) at La Fe University and Polytechnic Hospital in 2010 and 2011, and review all discharge summaries. 2) Inclusion criteria: LE-DVT patients without symptomatic PE diagnosed by a validated diagnostic procedure (Doppler ultrasound and/or Computed Tomography). 3) Exclusion criteria: not confirmed diagnosis of DVT or symptomatic PE. 4) ED physicians received a clinical session to remind them of the DVT protocol in December 2010. 5) A 24-item questionnaire was designed according to the parameters included in the DVT-protocol, and it was used to evaluate whether the discharge reports were filled out correctly.

Results: Compared to 2010 we found improvement ($p < 0.05$) in filling out some parameters: thromboembolic disease risk factors, weight, height, lymphadenopathies and LMWH (Low Molecular Weight Heparin) treatment at discharge (table 1). However, the majority of these parameters did not obtain a satisfactory level (> 80%). We found no statistical significance improvement difference in other parameters, such as duration of disease, previous treatment, blood pressure, heart rate, oxygen saturation, temperature, auscultation, analytical results, chest X-ray, Doppler ultrasound, LMWH first dose, bedrest, discharge destination, control by hemostasis unit and post-thrombotic syndrome prevention regimen.

Conclusions: Audit of emergency discharge reports in patients with LE-DVT allows us to find areas we should improve and prioritize them in order to design specific strategies for its management. According to our study we should give better information to discharged patients from ED, and be more accurate in data collection in clinical reports. The training strategy should be more elaborated than a brief reminder of the current hospital DVT protocol in a clinical session.

Table 1 (T-70). Comparative analysis in 2010 and 2011

Parameters	Statistical significance
DVT risk factors	p = 0.049
Weight	p = 0.035
Height	p = 0.020
Lymphadenopathies	p = 0.026
LMWH treatment at ED discharge	p = 0.042

T-71
AUDIT METHODOLOGY OF EMERGENCY DISCHARGE REPORTS IN PATIENTS WITH LOWER-EXTREMITY DEEP VEIN THROMBOSIS

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Objectives: To develop an appropriate methodology to audit issues related to the emergency discharge report in patients with the diagnosis of lower-extremity deep vein thrombosis (LE-DVT) without symptomatic pulmonary embolism (PE), related to our hospital DVT treatment protocol.

Material and method: 1) We listed all patients discharged with LE-DVT diagnosis from Emergency Department (ED) at La Fe University and Polytechnic Hospital in 2010 and 2011, and reviewed all discharge summaries. 2) Inclusion criteria: LE-DVT patients without symptomatic PE diagnosed by a validated diagnostic procedure (Doppler ultrasound and/or Computed Tomography). 3) Exclusion criteria: no confirmed diagnosis of DVT or symptomatic PE. 4) ED physicians were trained about hospital DVT treatment protocol in December 2010. 5) A 24-items questionnaire was filled out, according to the presence or absence of the different parameters included in our hospital DVT treatment protocol. 6) Comparison of the adequacy of discharge summaries to our hospital DVT treatment protocol. 7) Check that the audit of a limited number of discharge reports is representative of the total sample. The audit was repeated with a random sample with 10% of patients (1 in 10 patients listed in chronological order) and compared to the total sample using the Z test for comparing two proportions.

Results: In 2010, were analysed 90 LE-DVT patients, of which 50% (45 patients) needed hospital admission, and the rest were treated as outpatients (Table 1). In 2011, were analysed 93 patients (64.5% outpatients). This method was validated with 2011 LE-DVT patients: random analysis of 10% of 2011 sample was representative of the total sample in all items analyzed ($p > 0.05$).

Conclusions: Basic parameters were successfully completed over 80% of LE-DVT patients. Weight, height and lymph nodes exploration were the less reflected items in ED discharge reports. Information given to ED discharged patients with LE-DVT (treatment information sheet, post-thrombotic syndrome prophylaxis recommendations, LE-DVT first days life regime...) did not obtain a satisfactory level. Random analysis of 10% of LE-DVT patients treated in 2010 and 2011 was representative of the total sample in all analysed items. No statistical significant differences were found.

Table 1 (T-71). Correctly filled out audited parameters for outpatient therapy indication

	Yes (total sample) N = 45/90 (50%)	Yes (randomsample) N = 6/10 (60%)	p-value
First dose of LMWH in ED	22 (48.9%)	3 (50%)	0.7
LMWH therapy in ED discharge report	42 (93.3%)	5 (83%)	0.9
24 hour bed-rest, followed by relative rest	10 (22.2%)	3 (50%)	0.3
Discharge destination to Internal medicine	29 (64.4%)	6 (100%)	0.2
Control by Haemostasis unit	19 (42.2%)	3 (50%)	0.9
Post-thrombotic syndrome prophylaxis advices	7 (15.6%)	1 (17%)	0.6
Handle information sheet to patients	5 (11.1%)	1 (17%)	0.8
First visit to Internal medicine in 10-days period	25 (55.6%)	4 (66.6%)	0.98

T-72
VENOUS THROMBOEMBOLIC DISEASE: RISK FACTORS

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Objectives: Determine the incidence of risk factors involved in VTE in our population.

Material and method: Retrospective study of patients admitted to our hospital from 1 January to 31 December 2008 with the diagnosis of venous thromboembolism (VTE). We considered as risk factors: use of oral contraceptives (OC), smoking, immobilization in the previous month, surgery in the last month, neoplasia in the six months before or at the time of diagnosis, heredity or previous episodes of VTE. Are also evaluated demographic characteristics, comorbidities, location and extent of VTE.

Results: We included 165 patients (54.5% women), mean age 71 ± 14.8 years. 65.5% (56 patients) had only deep vein thrombosis (DVT) and 73.8% (109 patients) pulmonary embolism (PE) with or without DVT. 3.3% of women consumed OC; 10.9% of patients were smokers, male more often significantly, 21.8% had history of immobilization in the previous month and 10.9% underwent surgery in the last month. 19.4% had been diagnosed of neoplasia in the previous 6 months and 20.6% had at the time of diagnosis active neoplasic disease. In 20 patients (12.1%) it was identified a hereditary factor for VTE, and in this group was less frequent PE. 15.8% had a previous episode of VTE. The most frequent comorbidities were: hypertension (40%), dyslipidemia (18.8%), permanent atrial fibrillation (15.8%), more common in women significantly; chronic renal insufficiency (14.5%), DM 2 (13.3%), COPD (8.5%), more common in men significantly, heart failure (7.9%), ischemic stroke (7.3%) and MI (2.4%). The most common site of DVT was proximal venous system of lower extremities (41.2%) and 9.1% of PE were massive.

Discussion: All risk factors for venous thromboembolism evaluated in our study are recognized in the medical literature. In particular, neoplasic disease, as confirmed by our results. Immobilization is another widely recognized risk factor, especially that associated with hospitalization and surgery.

Conclusions: The risk factors most frequently associated with VTE were neoplasia at the time of diagnosis or within 6 months prior and immobilization. These findings are similar to those found in other articles in the literature.

T-73
HIGHER RISK OF THROMBOSIS FROM NON-HODGKIN LYMPHOMA CAN BE ANTICIPATED BY CLOT LYSIS INDUCTION ASSAY

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Objectives: Thromboembolic risk increases in cancer patients, independently of the initiation of the antitumoral treatment. Cancer environment is also highly hemorrhagic, which sometimes limits thromboprophylactic regimes. Both risks cannot be anticipated, and vary with each individual patient and the type of tumor. In order to anticipate such diagnostic parameter/s and develop a more appropriate "a la carte" pharmacological regime, Internal Medicine Unit, in the Ramon y Cajal Hospital in Madrid, initiated a collection of plasma and peripheral blood lymphocytes from recently diagnosed cancer patients who does not undergo antitumoral treatment yet. The principal aim is to define the lymphoma risk to procoagulant or antifibrinolytic effect.

Material and method: Blood from cancer patients were obtained by venipuncture between 7-11 am. The clinical laboratory measured in whole blood the levels of protein C, brain natriuretic peptide and D-dimer and the research unit isolated plasma and mix it with 1nM tPA to study its induced clot lysis effect over pure (125)iodinated fibrin clots. Healthy volunteer plasma was isolated parallely as a control group. Data were run in triplicates for each experiment and statistically analyzed with SigmaStat 3.1.

Results: Since July 2011, our unit collected 98 tumoral patients samples containing 21 non-Hodgkin lymphomas. This cancer group distributed in an age range (66.5 ± 15.8 years) similar to the total number of patients (70.3+13 years). A 62% of lymphomas were females, and 76% disseminated. D-dimer, C reactive protein and brain natriuretic peptide (BNP) showed elevated, but not conclusively enough levels that prevented the anticipation of the prothrombotic risk. Interestingly, among the lymphoma patients, development of thromboembolic disease or pulmonary embolism at the time of diagnosis occurred in a 14% of the patients (3 cases out of 21). Subsequently, during their 6 months evolution, another 2 patients developed a TEP accident. Both observations increase the thromboembolic occurrence to a significant 23%. tPA induced clot lysis assay demonstrated a significant ($p < 0.001$) impairment of the fibrinolytic percentage, both in localized (61.40 ± 17.78) or disseminated lymphomas (66.65 ± 15.92) as compared to control plasma (80.22 ± 7.96).

Conclusions: Presented data pinpoint the higher prothrombotic risk of the recently diagnosed non-Hodgkin linfomas. This critical observation becomes anticipated by the clot lysis induction assay which demonstrated equal thrombotic hazard both from localized or disseminated linfomas.

T-74
VENOUS THROMBOEMBOLIC DISEASE: CLINICAL PRESENTATION AND MEDICAL EVOLUTION

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Objectives: Determine the long-term prognosis of patients with the diagnosis of venous thromboembolism (VTE). We also want to evaluate the presentation and clinical course, anticoagulant therapy and survival.

Material and method: Retrospective descriptive study of patients admitted to our hospital from 1 January to 31 December 2008 with the diagnosis of VTE. We consider demographic characteristics, clinical presentation, diagnosis methods including laboratory tests and imaging techniques, anticoagulant therapy at the time of diagnosis and indication for permanent anticoagulation. We analyzed the survival at 3, 6, 9 and 12 months and the prognosis at 48 months.

Results: We included 165 patients (54.5% women) with mean age 71 ± 14.8 years. 65.5% (56 patients) had only deep vein thrombosis (DVT) and 73.8% (109 patients) pulmonary (PE) with or without DVT. The most common symptom of patients with PE was dyspnea (61.4%), followed by pleuritic chest pain (23.8%), syncope (13.7%) and hemoptysis (2.6%). The most common clinical in patients with DVT was swelling (74%), pain (58.7%) and erythema (18.4%). About laboratory tests, D-dimer had a mean value of 1946.24 ± 1662.2 and was normal in 3 patients. The most commonly used imaging test in the diagnosis of PE was chest CT-angiography (59.4%), showing DVT in 27.3% of cases; Scintigraphy V/P was high probability diagnostic in 34.7% of cases. 3% of patients required admission to the ICU for

massive pulmonary embolism. In two patients, thrombolysis was performed, in one patient was placed a vena cava filter and all initially received anticoagulation therapy with LMWH and 70.9% began oral anticoagulation prior to discharge. 42.4% of patients permanently maintain oral anticoagulation, and 33.9% have known risk factors. Died during admission 12.1% of patients and survival was 87.3%, 84.2%, 80.6% and 78.2% at 3, 6, 9 and 12 months respectively. 5.6% of patients had a new thrombotic event during follow-up period and was more frequent in patients with a hereditary risk factor. At 48 months, 36.8% of patients died, more likely in the group of women (12.3% by cancer, 2.5% cardiovascular causes, 0.6% rethrombosis and 16% by other causes). Moreover, 63.2% of patients are alive at 48 months of which, 8% were diagnosed with neoplasia and 2.5% developed a new episode of VTE.

Discussion: Clinical manifestations of VTE reported in our study (dyspnea and chest pain in PE; swelling and pain in DVT) are consistent with those contained in the medical literature, no doubt. The recurrence rate and risk factors for recurrence, as the case of hereditary factors were similar to findings reported in unselected populations. Also, while VTE is a major cause of morbidity in oncological patients, cancer is a known cause of death in these patients.

Conclusions: Patients with a hereditary risk factor had more thrombotic recurrence. Survival was decreasing progressively during the first year. The most common known cause of death was the neoplasic disease.

T-76
PLASMA FROM METASTATIC, BUT NOT LOCALIZED, LUNG TUMORS INHIBITS TPA FIBRINOLYTIC CAPACITY

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Objectives: Thromboembolic risk increases in cancer patients, independently of the initiation of the antitumoral treatment. Cancer environment is also highly hemorrhagic, which sometimes limits thromboprophylactic regimes. Both risks cannot be anticipated, and vary with each individual patient and the type of tumor. In order to anticipate such diagnostic parameter/s and develop a more appropriate "a la carte" pharmacological regime, Internal Medicine Unit, in the Ramon y Cajal Hospital in Madrid, initiated a collection of plasma and peripheral blood lymphocytes from recently diagnosed cancer patients who does not undergo antitumoral treatment yet. The principal aim is to define the lung cancer risk to procoagulant or antifibrinolytic effect.

Material and method: Blood from cancer patients were obtained by venipuncture between 7-11 am. The clinical laboratory measured in whole blood the levels of protein C, brain natriuretic peptide and D-dimer and the research unit isolated plasma and mix it with 1nm tPA to study its induced clot lysis effect over pure (125)iodinated fibrin clots. Healthy volunteer plasma was isolated parallely as a control group. Data were run in triplicates for each experiment and statistically analyzed with SigmaStat 3.1.

Results: At the present time, from the 98 cancer patients collected for our study, a group of 27 patients were diagnosed with a lung tumor. Lung patients showed an age distribution (68.5 ± 9.6 years) that does not differ from the total cancer patients diagnosed in the unit (70 ± 13 years). Majority of these lung cancers occurred in males (93%) and reached the hospital in metastasis (86%). Immunohistological classification of the lung patients felt in four different groups, a) microcytic (32%), b) epidermoid (8%), c) adenocarcinoma (52%) and d) undefined (8%). D-dimer, C reactive protein or brain natriuretic peptide do not offer a statistically significance between blood levels in metastatic or localized lung tumors. However, clot lysis assay depicted a reduction of the percentage of the external tPA lytic capacity in the presence of metastatic patient plasma (55.9% ± 14.8), but not plasma from localized ones (79.9% ± 2.9) as compared with plasma from healthy volunteers (80.7% ± 7.8). When the analysis from metastatic patients were crossed with the immunohistological tumoral group, the reduction of tPA lytic capacity was even greater in the epidermoid (21.7% ± 2.3) and microcytic (55.6% ± 12.2) patients, than in the adenocarcinoma (65.1% ± 8.6) ones.

Conclusions: Presented data demonstrate that fibrinolytic-induced analysis in the presence of plasma from lung patients could anticipate a higher prothrombotic state, assigning a clear risk to metastatic patients. Interestingly, within the metastatic lung patients, the highest risk associates to epidermoid and microcytic groups.

T-77
COLORECTAL TUMOR INCREASES PROTHROMBOTIC RISK IN NON-CANCER TREATED PATIENTS

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Objectives: Thromboembolic risk increases in cancer patients, independently of the initiation of the antitumoral treatment. Cancer environment is also highly hemorrhagic, which sometimes limits thromboprophylactic regimes. Both risks cannot be anticipated, and vary with each individual patient and the type of tumor. In order to anticipate such diagnostic parameter/s and develop a more appropriate "a la carte" pharmacological regime, Internal Medicine Unit, in the Ramon y Cajal Hospital in Madrid, initiated a collection of plasma and peripheral blood lymphocytes from recently diagnosed cancer patients who does not undergo antitumoral treatment yet. The aim is to define the colorectal cancer risk to procoagulant or antifibrinolytic effect.

Material and method: Blood from cancer patients were obtained by venipuncture between 7-11 am. The clinical laboratory measured in whole blood the levels of Protein C, Brain Natriuretic Peptide and D-dimer and the research unit isolated plasma and mix it with 1nm tPA to study its induced clot lysis effect over pure (125)iodinated fibrin clots. Healthy volunteer plasma was isolated parallely as a control group. Data were run in triplicates for each experiment and statistically analyzed with SigmaStat 3.1.

Results: At the present time, from the 98 cancer patients collected in the study, 17 patients suffered from an adenocarcinoma colorectal tumor. These patients distributed in an age range (75.52 ± 9.14 years) comparable to the cancer patients enrolled in the study (70.3+13 years). A 65% of colorectal cancers were males, and 52% arrived in metastasis. D-dimer comparison demonstrated statistically significant difference ($p = 0.029$) between localized (860 ± 462) vs metastatic patients (4592 ± 2847). However, only subtle, but not significant difference was found in terms of C-reactive protein (40 ± 38 vs 195 ± 182) or BNP (422 ± 441 vs 296 ± 375). Interestingly, external tPA plasma fibrinolysis significantly reduced its activity ($p < 0.001$), both at localized 60.33% ± 12.16 or disseminated colorectal patients 54.95 ± 18.98, as compared to healthy volunteers plasma (80.22% ± 7.96).

Conclusions: Adenocarcinoma colorectal patients present high prothrombotic risk both by means of D-dimer and clot lysis assay

determination. This risk is comparable for both localized or disseminated colorectal cancer.

T-78
INCIDENCE OF THROMBOEMBOLIC RISK IN TUMORAL PATIENTS BEFORE ANTITUMORAL TREATMENT

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Objectives: Thromboembolic risk increases in cancer patients, independently of the initiation of the antitumoral treatment. Cancer environment is also highly hemorrhagic, which sometimes limits thromboprophylactic regimes. Both risks cannot be anticipated, and vary with each individual patient and the type of tumor. In order to anticipate such diagnostic parameter/s and develop a more appropriate "a la carte" pharmacological regime, Internal Medicine Unit, in the Ramon y Cajal Hospital in Madrid, initiated a collection of plasma and peripheral blood lymphocytes from recently diagnosed cancer patients who does not undergo antitumoral treatment yet. This work will serve to define the cancer risk to procoagulant or antifibrinolytic effect. To elaborate a better knowledge and evolution of the tumoral patient diagnosed at this type of clinical unit.

Material and method: Blood from cancer patients were obtained by venipuncture between 7-11 am. The clinical laboratory measured the levels of Protein C, Brain Natriuretic Peptide and D-dimer in whole blood and the research unit isolated plasma and mix it with 1nm tPA to study its induced clot lysis effect over pure (125) iodinated fibrin clots. Healthy volunteer plasma was isolated parallely as a control group. Additionally, a data base was started and included all clinical and experimental observations, while it will monitored the patient evolution and the appearance of thromboembolic events during the following two years.

Results: First classification of the 98 patients showed an age range of 70 ± 13 years, which is noticeably lower than the non-tumoral patients diagnosed at the Unit (85 + 17 years). 65% of the patients were male and a great percentage of the patients arrived in metastasis (70%). Interestingly enough, 30% of the total patients arrived with a localized and potentially curable tumor situation. Patients could be classified in three major tumoral groups: 1) Lung cancer, 29 patients (27%); 2) Hemathological ones: 22 linfomas (21%), 4 Hodgkin disease (3.8%) and 1 myeloma (1%) and 3) Colorectal tumors: 18 cases (17%). Our unit also diagnosed 1 esophagus (1%), 5 stomach (4.8%), 3 pancreas (2.9%), 3 liver (2.9%), 2 biles (1.9%), 1 bladder (1%), 1 prostate (1%), 1 ovary (1%), 1 breast (1%), 3 brains (2.9%), 3 other localizations (2.9%) and 2 non-defined (1.9%) tumors. 2 other patients (1.9%) exhibited simultaneously colorectal and lung unrelated primary tumors. Thromboembolic risk at diagnosis revealed 4 cases of venous thromboembolism, VTE, and 5 pulmonary embolisms, PE, (9% of cases) representing a combined odds ratio of 28. Within the following 3 months appeared 3 newer cases from 42 patients monitored (2 VTE, 1 PE, 7%) and within 6 months, 2 more cases out of 22 (1 VTE, 1 PE, 9%). Lymphoma group was the most sensitive one with 5 thrombotic events (23%), followed by the lung 3 cases (10%) and colorectal ones (5.5%). Other thromboembolic risk parameters such as BNP, D-dimer and C Protein could not demonstrate significant differences between cancer patients and control ones.

Conclusions: Thromboembolic risk in tumoral patients increases significantly (9% at diagnosis) and remains high within the following 6 months. Lymphomas were the most thromboembolic ones with a 23% risk, followed by lung tumors (10%) and colorectal ones (5%).

T-79
A COMPARATIVE STUDY OF THE CARDIOVASCULAR RISK FACTORS IN CASES OF VENOUS THROMBOEMBOLISM AND ARTERIAL DISEASE (VENART PROGRAM)

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Objectives: The aim was to compare the prevalence of the cardiovascular risk factors in patients with venous thromboembolism (VTE) and those with arterial disease, all of them attended in a specific unit of Internal Medicine Department in a university hospital.

Material and method: A retrospective and comparative statistical analysis of the prevalence of cardiovascular risk factors in two different groups of patients. The first group was composed by patients who suffer from VTE during the first six months of 2011 and the second group included patients who suffer from an acute myocardial infarction (AMI) between 2003 to 2006.

Results: The first group of VTE included 65 patients, 58.5% with deep venous thrombosis and 37% wit pulmonary embolism. Mean age was 62.8 (SD 18.4) years and 58.5% were men. Mean corporal mass index was 28.7 (SD 3.6) Kg/m^2. Most patients (66%) suffer from an idiopathic VTE episode. With regard to cardiovascular risk factors, 50.7% of the patients were ex-smokers or active-smokers, 44.8% were obese, 49.2% had hypertension, 15.6% diabetes and 45.3% dislypemia. A comparative analysis of VTE patients with the group of 137 patients who had an AMI showed a significant higher percentage of women (41.5% vs 13.1%), lower percentage of tobacco use (50.7% vs 80%) and an older age (62.8 vs 57.8 years old). However, hypertension (49.2% vs 49.6%), diabetes (16.6% vs 23.4%), dyslipenia (45.3% vs 54.4%) and obesity (44.8% vs 45.3%) showed similar prevalence between 2 groups.

Discussion: The hypothesis that VTE and atherosclerosis share common risk factors is still matter of debate. VTE and cardiovascular disorders may share common risk factors and in some patients at risk for atherosclerosis, VTE might occur as the first symptomatic cardiovascular event. This association between VTE and atherothrombosis has great clinical relevance with respect to individual screening, risk factor modification, and the primary and secondary prevention of VTE.

Conclusions: Smoking, obesity, hypertension and dyslipidemia were the cardiovascular risk factors more frequently associated to VTE. Prevalence of these cardiovascular risk factors were similar in AMI patients, except for smoking. It is necessary a multidisciplinary approach to optimize detection and treatment of cardiovascular risk factors in VTE patients.

T-80
ADEQUACY OF THROMBOPROPHYLAXIS IN HOSPITALIZED MEDICAL PATIENTS ACCORDING TO CURRENT RISK SCALES

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Objectives: To assess the thromboprophylaxis (ThP) rate and its adequacy according to different scales for venous thromboembolism risk (VTE-r) and bleeding risk (B-r) in hospitalized medical patients.

Material and method: an observational descriptive study was undertaken in 4 medical services in Madrid (HU Infanta Leonor, H. de Torrejón, HU de Fuenlabrada y HU Puerta de Hierro), which included 247 inpatients during a defined period. The individual risk to ETV was evaluated according to current scales: PRETEMED Guide (low risk: 1-3 points; moderated- high risk ≥ 4), Caprini Predictive Model (CPM) (low risk: 0-1, moderate: 2, high: 3-4 and very high: ≥ 5), and Padua Prediction Score (PS)(low: 1-3, high ≥ 4). The individual bleeding risk estimation (H-r) was evaluated by: IMPROVE-h (high risk ≥ 7), RIETE-h (low: 0, moderated: 1-4, high > 4). All inpatients without previous anticoagulation were considered subsidiary to ThP.

Results: 59.5% of patients were male, with an average age of 69.6 ± 17.4 years. At hospital admission 16.2% of patients were not subsidiary of ThP (67.5% due to previous anticoagulation, and 32.5% due to having started it in the hospital). The ThP global rate in all patients subsidiary to ThP was 36.3% (59.3%-66%). It was started at ER department in 74.24%. We found a higher ThP rate in the Internal Medicine (IM) department than in the other departments (67.9% vs 40% onco/hematology and 53.6% rest of medical departments). Patients with PtH were older (71.4 ± 17.7 vs 63.7 ± 18.4, p = 0.03) and had a higher BMI (27.3 ± 5.8 vs 25.6 ± 4.7, p = 0.03). There was a high VTE-r in 64.6% of the patients (Padua Prediction Score).Of the 3 ETV risk scales, Padua PS is the one that classifies more patients as low risk. The recommendations for ThP were as follows: Caprini 91.9% (76.4% high/very high risk), PRETEMED Guide 55.4% (moderated/high risk), and PRETEMED Guide 49.2% (high risk). ThP is adequate in 57.9% according to Padua PS and Pretemed Guide and in 67.7% according to Caprini PM, with low kappa concordance indices (< 0.2) for all of them (0.163; 0.132 y 0.152 respectively). Bleeding risk when entering the hospital was high in 14% (IMPROVE-h, initiating ThP in 44.8%, OR 0.43; 95%CI of 0.2-0.9 versus 5% with RIETE-h scale).

Discussion: The agreement degree of ThP with respect to any of the scales that were used is statistically significant, being higher in IM than in other specialties (excluding oncohematology). In 15.5% LWMH dose is considered non adequate (35% underdoses and 65% overdoses).

Conclusions: 1. About two thirds medical patients receive thromboprophylaxis. 2. Adequacy of ThP depends on current specific scores but in general it is low.3. It would be appropriate to include an automatic Warning or Check list in electronic medical history to improve the thromboprophylaxis management.

Others

V-1
UTILITY OF CINACALCET IN NON-SURGICAL PRIMARY HYPERPARATHYROIDISM

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Objectives: Parathyroidectomy remains the only curative approach to most primary hyperparathyroidism (PHPT), medical treatment with cinacalcet has been proven to be an alternative for patients with secondary hyperparathyroidism and parathyroid cancer. Aim. To analyze the treatment with cinacalcet, in patient with primary hyperparathyroidism not tributary of surgery.

Results: We present 4 patients 2 women and 2 man 67 ± 11.5 year-old with diagnosis of PHPT, in whom surgical procedure was rule out. Calcium levels previous treatment was 11.85 ± 0.28 mgr/dl and PTH 169 ± 42 pg/ml. Treatment with cinacalcet 30 mg. daily was started. Fifteen days after initiated treatment calcium levels were 10.6 ± 0.15 mg/dl and PTH 146 ± 12 pg/ml. Cinacalcet was increased to 30 mg bid. Two months after initiated treatment, calcemia levels were 10.1 ± 0.6 mg/dl and PTH 92.3 ± pg/m. Adverse events not observed.

Discussion: In 80% of cases, PHPT is due to a single parathyroid adenoma, for which surgery is considered the treatment of choice based on guidelines established by the National Institutes of Health Consensus Panel. However, since success rates of the operation are less than 100% and vary between centers, pharmacotherapy with agents such as cinacalcet could be an alternative in a subset of patients with persistent hypercalcemia after one or more surgical interventions. Cinacalcet is a calcimimetic agent that increases the sensitivity of the calcium-sensing receptor to activation by extracellular calcium. Serum calcium and serum phosphorus should be measured within 1 week and iPTH should be measured 1 to 4 weeks after initiation or dose adjustment. Cinacalcet is useful in the management of primary hyperparathyroidism in patients in whom parathyroidectomy is contraindicated or who have failed surgical correction of their primary hyperparathyroidism, in doses of 30-60 mg daily. Patients should be carefully monitored for the occurrence of hypocalcemia. Potential manifestations of hypocalcemia include paresthesias, myalgias, cramping, tetany, and convulsions.

Conclusions: Cinacalcet, the first available calcimimetic, increases the sensitivity of the calcium-sensing receptor (CaR) to circulating serum calcium, thereby safely reducing serum calcium and PTH concentrations in patients with mild-to-moderate PHPT, intractable disease, and also parathyroid carcinoma. Cinacalcet in a reasonable and safe alternative to treatment of PHPT not tributary of surgery.

V-2
PNEUMOMEDIASTINUM AS AN UNUSUAL CAUSE OF CHEST PAIN: REPORT OF TWO CASES

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Objectives: Pneumomediastinum is an uncommon clinical entity. May complicate processes that increase intraalveolar pressure leading to alveolar rupture. The etiology is multifactorial and can be primary (spontaneous) or secondary (traumatic). We present two patients diagnosed of pneumomediastinum in the Emergency room. One of the cases was spontaneous while the other one was traumatic.

Material and method: Descriptive analysis of two cases of pneumomediatinum reviewing medical record data.

Results: 1st patient: 23 year old male patient, active smoker of cigarettes and cocaine, who consults for odynophagia, dysphagia and pain retroesternal of several days of evolution in the context of hyperemesis continuously and copiously. Physical examination revealed supraclavicular fossa subcutaneous emphysema and synchronous crepitation with the cardiac beating (sign of Hamman). Electrocardiogram registration and blood test were normal. Urine testing for cocaine was positive. Chest X ray and Scan evidence presence of air in mediastinum separating structures (pneumomediastinum). 2nd patient: 46 year old female patient who consults for cough, dyspnea and chest pain 24 hours immediately to a central

venous catheter placement for chemotherapy for hepatocelullar carcinoma with lung metastases of recent diagnosis. Physical examination showed subcutaneous emphysema in the neck, tachypnea and 88% of oxygen saturation. Electrocardiogram registration evidence sinus tachycardia. Blood test was normal. Chest Scan evidence presence of air in mediastinum separating structures (pneumomediastinum). Maintaining both patients at rest and vigilance as well as oxygen therapy and symptomatic treatment with spontaneous resolution immediatly to 5 and 7 days respectively.

Discussion: The spontaneous pneumomediastinum is an entity that was described as a clinical syndrome in 1939 by Hamman. In 1944 Macklin was described their pathophysiologic basis. Some authors have been found as causes bronchial asthma, coughing, maneuvers of Vasalva, ketoacidosis, repeated vomiting and drug use abuse such as cocaine and ecstasy (Vidal Marsal et al. Med Clín, 1984) taking into consideration the last two conditions in our 1st case. The 2nd case is clearly traumatic (iatrogenic) due to dissected mediastium secondary to a central venous catheter. The evolution of the pneumomediastinum is benign and self-limited with rare complications as seen in our two cases.

Conclusions: The pneumomediastinum is an uncommon clinical entity and has a benign course with symptomatic treatment. The differential diagnosis is extremely essential in the Emergency room.

V-4
EVOLVING PATTERNS OF THE ACTIVITY OF AN INTERNAL MEDICINE DEPARTMENT OVER A TWELVE YEAR PERIOD

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Objectives: Given the clinical and institutional challenges faced by Internal Medicine (IM), it is relevant to detail its recent evolving patterns relevant to planning the future of hospital care in this area. We aim characterize here the evolution of clinical activity and patient profiles of an IM department in a University Hospital over a period of 12 years.

Material and method: We conducted a study with retrospective data collection of the admissions in an IM department between 1999 and 2010. The data source was the hospital electronic data records. The main variables recorded included: demographic patient data (gender and age), length of stay (LoS), occupancy rate (OcR), discharge destiny and deaths. Diagnosis and nosological groups were coded using the International Classification of Diseases 9th revision and recoded using the Clinical Classifications Software. For each admission the existence of chronic conditions was identified by the Chronic Condition Indicator (AHQR - EUA). Elixhauser and Charlson comorbidity indexes were calculated as surrogates of patient complexity and comorbidities.

Results: There were 42,350 admissions (females: 55.1%) with 43.4 discharged patients per bed. The mean patient age was 67.9 years, with a consistent 13.8% increase between 1999 (63.9 years) and 2010 (72.7 years), similar in both genders. The percentage of patients over 80 years doubled from 20.6% in 1999 to 39.7% in 2010. The LoS remained stable (average 8.8 days). There was a slight although significant increase in the death rate (DR) (1999:9.8%, 2010:11.6%), more prominent in patients under 65 years (1999:5.4%, 2010:8.5%). The OcR was 89%. The number of coded diagnosis per patient increased from 3.4 in 1999 to 7.0 in 2010. This tendency was also present in the number of chronic conditions that averaged 2.2 in 1999 and 4.3 in 2010. In the period considered, between 91% and 97% of patients had at least one chronic condition. Both the Charlson and Elixhauser comorbidity indexes steadily increased from 1999 (Charlson: 1.6; Elixhauser: 1.0) to 2010 (Charlson: 2.5; Elixhauser: 2.3). The global pathological profile did not vary, with predominance of respiratory and urinary infection, cerebrovascular disease and heart failure. In the age group under 65 years, there was a 70.2% increase in the relative weight of neoplasias from 1999 (20.1%) to 2010 (34.2%) compared to an increase of 40.8% in the patients over 64 years.

Discussion: The significant number of discharged patients per bed and patient ageing, with predominance of the advanced age groups, the greater clinical complexity illustrated by the increment of comorbidity indexes and number of comorbidities, most of them chronic diseases, pose a growing pressure on IM departments. Interestingly the DR upward slope was more pronounced in patients under 65 years partially explained by the major increase in the relative weight of admitted neoplastic conditions.

Conclusions: The increasing complexity and multipathology of the IM hospitalized patients brings additional pressure on its response to the healthcare needs of this population. We emphasize the primordial role of Internal Medicine as a provider of differentiated and integrated medical care to this profile of patients.

V-5
FEATURES OF PAPILLARY THYROID MICRO CARCINOMA, RETROSPECTIVE STUDY

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Objectives: Papillary thyroid micro carcinoma (PTMC) is defined as a papillary thyroid cancer measuring 10 mm or less in greatest dimension. Increasing incidence of papillary thyroid micro carcinoma (PTMC) is due to accurate histological study of surgical specimens or to improved preoperative diagnostic techniques. Recent data reveal that in the last 25 years it has been a 2.4 fold increase in thyroid cancer, with concomitant rise in thyroid microcarcinoma cases Aim. The objective of this study was to assess the clinical presentation, tumour characteristics and follow-up.

Material and method: We analysed clinicopathologic data of incidentally papillary thyroid micro carcinoma, from 321 thyroid surgeries carry out in our hospital between 2005 and 2010.

Results: Of 321 surgeries carried out in our hospital, in 18 cases all females of 55.11 ± 11.34 year-old (range 37-79) PTMC was detected in hystopathology. FNA previous surgery was negative for papillary tumor, in 4 cases follicular cells were detected. Total thyroidectomy was carry out by multinodular goiter to all patients. PTMC size was 5.44 ± 2.66 mm (range 1-9). Multicentric 1 case, association with Hashimoto thyroiditis was detected in 6 patients, and benign follicular lesions in 4. Radioiodine therapy 1 patient. Mean of follow up 2.95 ± 1.56 years. No metastasis or relapses or death have been detected during follow up.

Discussion: PTMC are incidentally discovered in pathological examination after the surgery of benign thyroid disorders. Its prevalence is high, is a malignant thyroid tumor with potential multifocality (almost 1/3) and diameter 10 mm or less and the epidemiology is not clearly established. PTMC appears to have a benign course in the majority of patients initially treated with near-total thyroidectomy and therefore, according to the revised ATA thyroid cancer guidelines, additional radioiodine ablation is not justified. However, an aggressive subtype of PTMC seems to exist. More prospective studies or probably molecular markers are needed, in order to identify this subtype.

Conclusions: In our study PTMC appears only in women, have a benign course, radioiodine ablation is not justified.

V-6
CLINICAL CHARACTERISTICS OF PATIENTS DIAGNOSED WITH NEOPLASTIC DISEASES IN A INTERNAL MEDICINE UNIT

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Objectives: The aim of this study is to analyse the clinical characteristics of patients diagnosed with neoplastic diseases in our Internal Medicine unit, and evaluate their initial management, by looking for factors which are related exclusively to palliative treatment and their hospital stay.

Material and method: A retrospective study was carried out, which gathered all cases of patients diagnosed with neoplastic diseases between January 2009 and May 31st 2011. The information collected is: patient demographics, means of hospitalisation, characteristics of neoplastic development, functional class, clinical characteristics, treatments carried out, if death occurred during hospitalisation, discharge referral, exclusive symptomatic control referral and hospital stay. We carried out a binary logistic regression analysis of the different qualitative variables with the aim of building a prediction model. This new model was created in order to try to predict the different factors which influence the decision to opt for an active treatment as opposed to an exclusively palliative one, in order to identify which patients were referred to Oncology and which factors are more prominent in a shorter hospital stay.

Results: There were 76 patients diagnosed with neoplastic disease. In just 16 of them (21%) the use of active managements was ruled out, with them being referred to the Home Care Support Team (HCST), the Palliative Medicine Unit (PMU) and the primary care doctor for symptomatic control. In the linear regression univariate analysis, the correlation between patients referred for symptomatic control (to HCST, OMU and primary care) aged over 70 ($p = 0.009$) and those with a Karnofsky Index below 60 ($p = 0.026$), turned out to be statistically significant. The use of analgesia helped towards a hospital stay of less than a week.

Discussion: Terminally ill patients mean a significant group with specific characteristics which are going to set its initial management in our Internal Medicine area. It is about relatively younger patients, with an acceptable functional class, who, mainly, are going to be referred for active treatment. From the beginning of their illness, they are going to show symptoms which must be evaluated and treated correctly, which supports the role of the internist in the medical attention to this population and forces the internist to acquire the different specific competences for the development of the necessary integrative management. Unlike this series, the most of the patients from our study was in the group between the ages of 50 and 70, and showed an acceptable functional status. Probably, that's why in the most of them, the diagnosis options were run out, being left just 4 patients (5.3%) without histological diagnosis. In just 16 of them (21%) the use of active managements was ruled out, with them being referred to the Home Care Support Team (HCST), the Palliative Medicine Unit (PMU) and the primary care doctor for symptomatic control. In our study, Karnofsky Index has shown a predictor role for an exclusive palliative treatment choice when it's below 60%, suggesting the importance of the functional assessment of patients and the necessity of reflecting and managing appropriately the functional status scales, not only in the diagnosis, but also during the development of the illness.

Conclusions: The study shows the statistic correlation among the symptomatic exclusive treatment choice and those aged over 70 and the functional class deterioration gauged by the Karnofsky Index which is below 60%. As well as the relation between the use of analgesia and a shorter hospital stay.

V-10
AGRANULOCYTOSIS BY METAMIZOLE: REVISION OF 8 CASES DESCRIBED IN A COUNTY HOSPITAL

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Objectives: To analyze and to describe clinical and epidemiological findings of this adverse effect in a health area in southern Valencia during a period of 7 years.

Material and method: Retrospective analysis of all patients admitted with a discharge diagnosis of agranulocytosis by metamizole at the Hospital de la Vega Baja in a period between 2005 and 2012. We conducted a thorough review of medical records and the puncture and bone marrow aspirate. Neutropenia was defined as all those tested with neutrophils < 1,500 ml) with origin suspected of having been caused by metamizole. Defining itself as a serious one with neutrophils less than 500 ml/h. The hospital of the Vega Baja in Orihuela includes a reference population of about 200,000 inhabitants, with a significant foreign floating population due to tourism.

Results: For the study period, 8 cases were found, 4 males and 4 females with a mean age of 61 years old (standard deviation (22-84). Of these 4 were foreigners (50%) were all British. The most common clinical presentation was fever above 37.8 ° C in 6 of 8 patients in the 6 cases showed foci of infection: 3 respiratory infections, urinary tract infection, an abdominal, a knee replacement and myositis. The average patient stay was 8.25 days. Only one patient did not require hospitalization. All debuted with severe neutropenia but one that was moderate. All patients were treated with colony stimulating (G-CSF) except one. There was only one death during hospitalization. In all cases the adverse effect appeared in the first month of treatment.

Discussion: Metamizole is one of most popular drugs sold in Spain, is widely used as a spasmolytic analgesic with high oral bioavailability (> 90%), a suitable half-life (6-9 hours) and a comparable analgesic effect with low doses of opioids. Agranulocytosis is a potentially life-threatening multi-drug-induced. Metamizole identified as a cause of agranulocytosis, which is why we have withdrawn from different countries. Agranulocytosis appears frequently in the first two months of treatment and is worse if it affects other series. In our series one patient died (12.5%), being superior to others described in which mortality is situated in 7.7%. Regarding the treatment is amply demonstrated that the use of G-CSF with antibiotics reduces the numbers of agranulocytosis and the average hospital stay. In our series, use was 87%. Is recorded in our study that there is a strong genetic predisposition among the white population and northern Europe, as described in the literature, 50% of our sample was of British origin.

Conclusions: In our area agranulocytosis is a side effect more common among British citizens, so it is necessary to disseminate among the medical and pharmaceutical services in tourist areas the potential adverse effect of this drug and avoid use in this population.

V-11
DOES LOW CENTRAL DOPAMINERGIC ACTIVITY INFLUENCE METABOLIC PARAMETERS?

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Objectives: Dopaminergic agonists have been proved to improve glycemic and lipid control in type 2 diabetic patients, which suggests that lower dopaminergic activity can be present in subjects

with risky metabolic profile. Central dopaminergic activity can be measured by apomorphin challenge test: apomorphin increases growth hormone and decreases prolactin; the levels of these hormones can be used as markers of central dopaminergic activity. The aim of our study was to evaluate the relationship between central dopaminergic aktivity, metabolic parameters and food preference in healthy men.

Material and method: We examined 42 healthy men (average age 43.5 ± 7.4 years, BMI 27.4 ± 5.7 kg/m^2), anthropometric (body mass index/BMI/, waist-hip ratio, blood pressure and body fat by bioimpedance) and metabolic (glycaemia, lipids, glycated hemoglobin) parameters were measured and HOMA index of insulin resistance was calculated at the beginning of the study. All the subjects filled in Heller´s Carbohydrate Craving Questionnaire, describing the extent of carbohydrate preference in food. Sublingual apomorphine (0.033 mg/kg with 4mg as the highest dose) was administered and prolactin and growth hormone were measured at -30,-15, 0, 15, 30, 45, 60, 75, 90, 120, 150 and 180 minutes. Areas under the curve for prolactine (AUCPRL) and growth hormone (AUCGH) were calculated using trapezoideal rule. Linear regression was used for statistical analysis.

Results: Negative correlations were observed between AUCPRL resp. AUCGH and BMI (r = -0.36, p = 0.013; resp. r = -0.56, p = 0.0001) and AUCGH and age (r = -0.53; p = 0.001). Since the majority of metabolic parameters are known to be influenced by age and BMI, we adjusted all the correlations for those two parameters. After adjustment for age and BMI we observed statistically significant negative correlations between AUCGH and HbA1c (r = -0.37, p = 0.016), AUCGH and HOMA index (r = -0.34, p = 0.025), AUCPRL and carbohydrate craving questionnaire (r = -0.345; p = 0.025), resp. AUCPRL and total cholesterol (r = -0.41, p = 0.007).

Discussion: The results of our study contribute to the increasing evidence of the links between glucose and lipid metabolism and central dopaminergic activity. Decreased dopaminergic activity seems to be connected with impaired glucose metabolism and risky lipid profile. Multiple mechanisms are discussed – i.e. dopamine can influence the food intake, regarding amount and preference of macronutrients (palatable food, carbohydrates), on the other side, insulin influences dopamine signaling in the brain (dopamine signaling is decreased in conditions of insulinopenia or insulin resistance).

Conclusions: In healthy men, lower central dopaminergic activity is connected with higher total cholesterol, glycated hemoglobin, HOMA index and increased preference of carbohydrates in food.

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V-13
ADMISSIONS INTO AN INTERNAL MEDICINE DEPARTMENT OF A COMMUNITY HOSPITAL: A POPULATION-BASED STUDY

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Objectives: Our aim was to analyze the characteristics of the admissions into an Internal Medicine department of a community hospital throughout a 1-year period.

Material and method: A prospective study was performed. Data was collected from the hospital application Medicx, from January 2011 through December 2011. Variables recorded were divided into demographical (age, sex and geographical origin) and clinical (diagnosis at admission according to CIE 9-MC). A descriptive assessment of data was carried out.

Results: A total of 2,015 patients were admitted into our department, whose data were available for 1,627 patients. Mean age was 68.9 ± 16 years, 67 ± 15 years for men (59.4%) and 70 ± 17 years for women (40.6%). Most patients (55%) were originals from the town where the hospital is located, whereas 40% lived in the influence area, the rest being from other areas, with a 7% of foreigners. The most frequent cause of admission was cardiovascular diseases (35%, including stroke), followed by respiratory disorders (24%) and gastrointestinal ones (17%). Individually considered, the most prevalent disorders were as follows: acute coronary syndrome (11%; 43% for non-ST elevation myocardial infarction and 29% for unstable angina), heart failure (10%), bacterial pneumonia (9%), stroke (8%), respiratory infection other than pneumonia (6%), gastrointestinal bleeding (5%) and acute pancreatitis (4%). Eighty-four per cent of patients were discharged, while 8% was transferred to another department or center. However, overall mortality was 8% (12% due to pneumonia and 10% due to heart failure).

Discussion: Our study shows a high rate of admissions for a community hospital with an official reference population of 131,251 inhabitants (as of 2010). However, being a coastal area with a mild climate, the actual population attended is even higher, with a significant foreign population. Furthermore, the patients' average age is elevated, especially for women, which is a reflection of the aging population. We found a high prevalence of cardiovascular diseases, possibly higher than in other areas. Of particular interest is the stroke rate, taking into account the unavailability of a Neurology specialist consultant in our Department, the reference centre being over 70 km away. Other prevalent disorders (cardiac, respiratory and gastrointestinal) have their correspondent specialist consultants. As for mortality, we admit it may be higher than expected, but we attribute it to the aging population and their multiple disorders, as well as a significant rate of advanced malignancies (data not shown).

Conclusions: Even though this is only a descriptive study, it may help to carefully think about the direction the future planning of our Health system should take.

V-14
MUSCULOSKELETAL TUMOR COMMITTEE, RESULTS OF OPERATION OF MULTIDISCIPLINARY TEAMS IN A SPANISH HOSPITAL HEALTH AREA

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Objectives: Detection, study and programming of all patients with sarcomas Department of soft tissue and bone. Proposed therapeutic procedure, or any other attitude, in the same condition. Proposals for monitoring and control patients evaluated by the Committee. Update of diagnostic procedures and treatments to improve the quality of care and teaching and promote teaching and research activity.

Material and method: We have collected all the cases that have been rated by the committee of musculoskeletal tumors since its inception in December 2011 to March 1, 2012. We describe the clinical features, epidemiology of patients and clinical actions performed.

Results: Since its inception on December 13, 2011 Musculoskeletal Sarcomas Committee has assessed, treated and followed 20 patients in a multidisciplinary manner. Of these 10 were men and 10 women with a mean age of 52 years (25-79 years), 14 were soft tissue tumors and 6 bone tumors. Of soft tissue tumors treated 9 were malignant (64%), one child diagnosed as melanoma primary lesion in pretibial area and 8 primary soft tissue sarcomas: 4 liposarcomas of low grade, 2 high-grade pleomorphic sarcomas, 1 leiomyosarcoma and 1 spindle cell sarcoma. Within the benign soft tissue tumors pathologically suspected malignancy but further tests found in 3 cases of giant lipomas, 1 case of villonodular synovitis and ganlión

in popliteal fossa. Of the 6 tumors were benign bone 2, 2 patients with osteochondromatosis multiple and 4 malignant, 3 metastatic lesions of lung cancer in 2 cases and breast in 1 case, and a adamantimoma to warm. Soft tissue sarcomas were operated all the Traumatology Service of our center, receiving adjuvant radiotherapy 5 of the 8 primary malignant sarcomas (sarcomas of high grade and one case of low-grade liposarcoma) with a current 100% survival without local recurrence, lymph node and distant. Metastatic bone sarcomas were referred to special committee of the primary pathology and the primary cause, the adamantimoma another center was referred to the benign and were treated at our center.

Discussion: Soft tissue sarcomas are tumors of low incidence and clinical management is difficult. Usually patients are referred to reference centers for diagnosis and treatment. These focal points are usually tertiary hospitals that have all the disciplines involved in the management of soft tissue sarcomas. In our experience most of the tumors submitted for evaluation by the committee found to be soft tissue sarcomas (64%), indicating that the structure and organization of the committee is allowing the detection of cases correctly. Although our hospital is county, we found that the creation of the committee of soft tissue sarcomas is serving to unify criteria with referring patients from different specialties and streamline processes both diagnostic and treatment thereof. This shows that despite having a low incidence, soft tissue sarcomas can be handled properly and with high chances of success if a specialized multidisciplinary team proposes this.

Conclusions: The treatment of soft tissue sarcomas requires a multidisciplinary specialized committee to deal with streamlining the diagnostic process and plan the treatment strategy. We think that the successful evolution of the case will depend on decisions made on that committee.

V-15
PREVALENCE OF PERIPHERAL ARTERIAL DISEASE IN PATIENTS WITH PSEUDOXANTHOMA ELASTICUM

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Objectives: Pseudoxanthoma elasticum (PXE) is a rare disorder due to mutations in the transporter ABCC6; it is unknown which molecule is involved. Calcifications of elastic tissues, in the retina (angioid streaks and blindness), skin (yellowish plaques) and arteries (ischemic symptoms) are the main pathological features. As a consequence, peripheral arterial disease (PAD) is increased in this population. The aim of our study was to assess the prevalence of PAD in patients with PXE.

Material and method: 19 patients with clinical, pathological and/or genetic diagnosis of PXE were included. PAD was assessed by the measurement of the ankle-brachial index systolic pressures ratio (ABI) with a portable Doppler device. PAD was diagnosed if ABI was < 0.9. Clinical relevant data, vascular risk factors, intermittent claudication (IC), anthropometric data and vascular examination were registered.

Results: The mean age was 41.8 years (range 25-71), with a body mass index (BMI) of 26 kg/m^2. 69% were female and 31% were male. Treatments are shown (table 1). Hypertension was present in 36% of the patients; dyslipidemia in 21% and 1 patient (5.3%) had type 1 diabetes. 32% were smokers and 10.5% were former smokers. Among 19 patients, only 2 had an ABI below 0.9 (10.52%), both of them suffering from intermittent claudication (IC). No other patients had neither symptoms of IC nor abnormal ABI measurement.

Discussion: Only 10.52% of our patient had PAD; this is in contrast with other study who found a prevalence of 45% in a series of 53 patients (Lefhtériotis. J Vasc Surg, 2011). The reason of this discrepancy may be related to age; in our group, constituted mostly of women, the age was lower compared to another study.

Conclusions: Prevalence of PAD in our patient with PXE was lower than expected.

Table 1 (V-15). Treatments

	Antiaggregants	AntiHTA	Hypolipemics	ADO	Insulin
Yes	5%	37%	16%	-	5%
No	95%	63%	84%	100%	95%

V-16
IMPACT OF GLOMERULAR FILTRATION IN THE LONG-TERM SURVIVAL AFTER A FIRST EPISODE OF STROKE

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Objectives: Explore the association between glomerular filtration rate (GFR) and survival after a first ischemic stroke.

Material and method: Retrospective cohort study. Follow-up: 5-10 years. Variables: demographic, laboratory, and evolution. Exclusion criteria: foreigners, prior stroke, hemorrhagic stroke. t-Student for quantitative and qualitative chi-square.

Results: We included 415 cases, being 73.5% atherothrombotic (AT) and 26% cardioembolic (CE). Analytical: GFR 81.04 ml/h (95%CI 59.6 to 108.45) (AT 82.4 ml/h, 95%CI 55.3 to 109.6 vs 77 CEml/h, 95%CI 49.2 to 104.8, p = NS). Had GFR < 60 ml/h after admission to follow up 111 patients (27.3%). The total had GFR > 60 ml/h were 27% (n = 112) (28% AT vs 24% CE 24%, p = NS) between 30-60 ml/h 24.8% (n = 101) (22 AT vs CE 31, p = NS) and less than 30 ml/h for 22% (n = 101) (2.3% AT vs CE 2.8%, p = NS). For the total sample mortality was 44.6% (42.5% AT vs 57.5% CE). Of all patients who died, 26.4% had renal failure, 39% had a clearance < 60 ml/h p ≤ 0.001). It was observed a statistically significant association between the presence of a further deterioration of renal function and a worse outcome for each 10 years of follow up (OR 11.1 95%CI 5.7 to 16, p < 0.001), while adjusting for age, association only exists in more than 80 years (47.4% vs exitus live 65.5%, p = 0.011).

Conclusions: 1. After a first stroke during follow-up the deterioration of glomerular filtration, is associated with a worse prognosis, especially in elderly. 2. The kidney disease is a manifestation of target organ damage in patients with vascular risk, which runs in a silent, requiring a global approach to patients suffering from stroke event to increase survival.

V-17
CYSTATIN C AS PROGNOSTIC BIOMARKERS IN FABRY DISEASE

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Objectives: Fabry disease (FD) is a progressive, X-linked inherited disorder of glycosphingolipid metabolism. According to published literature, there is not an accepted biomarker to assess disease progression and treatment efficacy. In our study we hypothesize that cystatin C (CsC) is potentially useful as biomarker in FD.

Material and method: We designed a prospective study based on 4 unreported patients with FD who were studied at Lozano Blesa University Hospital of Zaragoza. All FD patients were diagnosed through the identification of the mutation in the alfa-galactosidase A gene and/or showed reduced activity of alfa-galactosidase A enzyme in leukocytes and/or plasma. Cystatin C (CsC) was measured at the beginning of the study and 2 years later.

Results: Seventy-five percent of the total samples were from female patients (N = 3) and twenty-five percent were from male patients (N = 1). The mean age was 32 years, range from 11 to 43 years old. Mean duration of patient monitoring was 21 months. Three patients were asymptomatic and they were not receiving treatment. One patient presented cardiovascular involvement (severe dilated cardiomyopathy) with multiple hospital admissions due to congestive heart failure. This patient was receiving enzyme replacement therapy (ERT) with a mean duration of 3 years. For renal evaluation, the mean serum creatinine level was 0.69 mg/dl (range 0.56-0.79). Glomerular filtration rate (GFR) was calculated by MDRD formulae. Mean GFR was 119.34 ml/min. Means CsC concentration was 0.71 mg/l (range 0.53-1 mg/l) and 3 years later means CsC concentration was 0.67 mg/l (range 0.57-0.86 mg/l). In the patient was receiving ERT, CsC concentration was 1 mg/l at the beginning of the study and 0.86 mg/l 3 years later.

Discussion: Fabry disease (FD) is a lysosomal storage disorder caused by mutations in the alfa galactosidase A gene. It is characterized by the deposition of the incompletely metabolized substrate globotriaosylceramide in several cell types and multisystem involvement mediated by endothelial dysfunction. Renal failure, cardiovascular disease, and stroke are the major causes of morbidity and mortality, occurring in the fourth or fifth decade of life. Enzyme replacement therapy (ERT) is an efficient treatment in controlling symptoms and also it may reduce the severity and/or progression of disease manifestations. However, there is not a reliable and validated biochemical marker to assess disease progression and treatment response. CsC is an extracellular cysteine protease inhibitor that belongs to the cystatin superfamily. In general population, it has proven to be highly useful as a marker for early renal and cardiac damage and endothelial dysfunction. For this reason, we evaluate the usefulness of CsC as a potential biomarker in FD. In our study, we observed a correlation between CsC concentration, cardiovascular involvement and severity of the signs and symptoms. Also, during the 3 years of observation, we found a decrease of CsC concentration and a improvement of cardiac symptoms and quality of life in the patient who was receiving ERT. Therefore, the results of our study suggest tha CsC concentration is a better marker than serum creatinine in detecting visceral involvement in FD patients, specifically renal and cardiovascular involvement. Additionally, CsC may provide useful information regarding treatment efficacy and it would be a good biochemical marker of response to ERT.

Conclusions: CsC is a useful and valid biomarker that can be used to evaluate patients with FD and may also be used to monitor the subsequent effects of ERT in individual patients. In future, this findings should be further validated on others FD patient population.

V-18
SEASONAL DIFFERENCES IN MORTALITY RATES AMONG TERMINALLY ILL PATIENTS ATTENDED IN A SOUTHERN EUROPEAN HOSPITAL AT HOME UNIT

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Objectives: Excessive mortality rates during winter months have been perceived by palliative care professionals, but these phenomenons has not been documented in our area. The aim of this study was to determine any relevant clinical difference in outcomes or healthcare variables among seasons of the year.

Material and method: All patients consecutively attended by a southern European university hospital at home unit, who were terminally ill, were recruited. Inclusion period: January 2000 to May 2010. Analysed variables were the number of home visits by physician or nurse, length of stay per episode, death rate and month in which the patients were attended. Comparison of qualitative variables was done by Chi-Square and multivariate logistic regression models were performed to identify those variables independently associated to higher mortality. Quantitative variables were compared through median comparison (Mann-Whitney's U test) as all were non parametric, and they were converted to dummy variables and were included in multivariate logistic regression models.

Results: 5,442 patients in 8,427 episodes were included for analysis. 2,615 were cancer patients and they had 3,559 episodes. 374 patients died during active follow-up (4.44%). Monthly mortality rate was: January: 43/688 (6.25%); of which lung carcinoma 9/66 (13.6%), central nervous system 4/13 (30.8%), liver and bile ducts 3/22 (13.6%), cervix and endometrial tumours 2/5 (40%); February: 34/720 (4.72%); March 33/792 (4.16%); April 24/712 (3.37%); May 26/720 (3.61%); of which lung carcinoma 5/63 (7.9%), central nervous system 0/15 (0%), cervix and endometrial tumours 0/8 (0%); June 31/705(4.4%); July 28/644 (4.35%); August 21/532 (3.95%); September 29/597 (4.86%); October 39/670 (5.82%); November 33/648 (5.09%); December 33/625 (5.28%). In winter, mortality rate was 5.1% as opposed to a 4.2% in the other seasons (Fisher's unilateral exact test p = 0.042). Among cancer patients, such differences were clearly evident, with a mortality rate of 10.94% in January vs 6.9% in May (aOR 1.944; 95%CI 1.083-3.490; p value = 0.026). There were significant differences in monthly mortality rates between January-February-September-October months (circa 10%) and April-May-June months (circa 7%) in these patients (p = 0.04). However, mortality rate was very low amongst non cancer patients (mortality rate range 0.06-1.99%; p = 0.68) and low amongst cancer non terminally ill patients (mortality rate range 1.9-3.69%; p > 0.5). No differences were found in home visits either length of stay between seasons or months. Independently associated to higher mortality variables amongst terminally ill cancer patients were being submitted by Medical Oncology or Radiotherapy (aOR 7.667; p = 0.000) and being attended during January vs May (aOR 1.944; p = 0.026).

Discussion: Higher wintertime mortality rates among frail patients have been previously published and particularly affect Portugal, Spain and Ireland, and social factors have been advocated (J Epidemiol Community Health. 2003;57:784-9). Although excess winter mortality also occurs in the UK, age and not socioeconomic gradient did associate with this finding in Britain (BMJ. 2004;329:647-51). Vitamin D deficiency may be also involved (Cancer Epidemiol Biomarkers Prev. 2005;14:2303-9). A small sample size and selection bias may influence negative results amongst non cancer patients. Several subsets of cancer types showed higher differences.

Conclusions: A significant increase of mortality rate during Winter months was identified amongst terminally ill cancer patients treated in their homes. The nature of this phenomenon is yet to be determined.

V-19
ENDOSCOPIC FINDINGS IN ADULT PATIENTS WITH CELIAC DISEASE

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Objectives: Clinical manifestations of celiac disease (CD) in adults are highly variable. It can be manifested by many nonspecific gastrointestinal symptoms that can be attributed to other common gastrointestinal diseases. Our objective is to describe macro and microscopic findings in upper endoscopies and colonoscopies performed on patients who were diagnosed with CD in adulthood. We included typical findings of CD, and other signs that are suggestive of different diseases that may justify the symptoms and can lead to misdiagnosis or delay CD diagnose.

Material and method: Observational, retrospective study designed to describe all the upper endoscopies and colonoscopies performed on patients who were diagnosed with CD in our hospital between January 1990 and December 2010. Data were collected from both macroscopic and microscopic findings.

Results: During this period a total of 103 adult patients were diagnosed of CD. All patients underwent at least 1 upper endoscopy and 15 patients also have a colonoscopy. Endoscopic findings were: changes compatible or suggestive of CD (cobblestone pattern and folds decrease) in 41 (39.8%), gastritis in 15 (14.5%) – acute in 2 and chronic in 13 -, esophagitis in 4 (3.8%), scars from old ulcer in 2 (1.9%), stomach retention in diabetic gastroparesis in 1, hiatal hernia in 1, gastric polyp in 1, and 1 esophageal papilloma. Endoscopies were informed as normal macroscopically in 53 (51.5%) patients. Microscopic findings were compatible with chronic gastritis in 21 (20.3%), one of them with intestinal metaplasia, acute gastritis in 7 (6.9%), erosive duodenitis in 3 (2.9%) and Barrett's esophagus 1. Moreover, in 12 (11.6%) patients we found the presence of Helicobacter pylori. Regarding to colonoscopy, the most frequent indication to realize it was the presence of diarrhea. It was reported as normal in 13 patients, one had colonic diverticulosis and one an adenomatous polyp with mild dysplasia.

Conclusions: Patients who are undergoing to gastroscopy for suspected CD may have another gastrointestinal diseases that occur superimposed to CD in up to 50% of cases. The most common are acute and chronic gastritis, with or without the presence of Helicobacter pylori. The macroscopic findings of injuries or diseases that can cause these symptoms should not prevent duodenal sampling to rule out CD.

V-21
WHAT PATIENTS THINK ABOUT INTERNAL MEDICINE AS A CONSULTANT ARE TREATED IN INTERNAL MEDICINE (IM) FOR THE INTERNIST AND FAMILY PHYSICIAN?

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Objectives: Knowing what is IM seems to create doubts, uncertainties, about what they know or treat doctors called "internists". That is why the reason for this survey, to clarify their image our patients about what they believe is the IM.

Material and method: Based on the IM training program published by the Ministry of Health in the Official Gazette No. 33 (February 7, 2007) 10-question test designed on the concept, knowledge areas and areas of IM care. The test was proposed to 50 patients evaluated by the consulting internist at the health center of our dependent IM (well answered by the patient or primary caregiver as a second option). Form test questions: 1. What do you think is the IM? 2. What do you think is a doctor "internist"? 3. Who do you think is a doctor? 4. What do you believe the internist who knows? 5. If you suffer or suffer from various diseases, for example, diabetic, hypertensive, and have cholesterol, and suffers from the lungs because of snuff? What doctor or doctors believe you can help them most to improve their health? 6. Who do you believe that often seek medical cardiologist, pulmonologist, Digestive, Neurologist when a patient suffers from several diseases at once and want to improve your general? 7. What do you think is responsible for the internist? 8. Where do you think you can work the internist? 9. Who do you think is the doctor who can perform a comprehensive care for diseases that have or may be suffering? 10. Finally, How do you form an internist?

Results: 50 surveys were conducted: patients 44 (88%)/family 6 (12%). Gender: male 14 (28%)/female 36 (72%), mean age of 50.92 years. 38% (11) previous contact with IM, the first time 62% (31). Correct answers according questions: 1 (88%) 2 (76%) 3 (78%) 4 (92%), 5 (58%), 6 (66%), 7 (20%), 8 (70%), 9 (78%), 10 (34%).

Discussion: Regarding the concept of specialization (test 1, 3 and 10): most patients/carers recognize internal medicine and medical specialty but do not know how the internist as 66% of cases and even 20% of them believe that studying medicine and then begin work on the CS with family physician. Area of knowledge (test 2 and 4): over 76% think that the medical internist understands most medical illnesses. Care area (test 5,6,7,8 and 9): Despite the comprehensive knowledge to identify who owns the internist, the patient does not have clear air care that carries out its work, identifying the internist as a consultant to other specialties (66%) but not rely on the response capacity of the internist in traditional medical areas (as respiratory, endocrine, neurology, cardiology...). However, understand intercommunication/coordination IM/Family Physician in attendance integral similar to these specialties.

Conclusions: The patients do not really know what an internist medical. Can sense that medical work areas but confused. We must let us know and communicate the vision we have of comprehensive medical pathologies. In this way patients will have more confidence in our work.

V-22
WC, A STRONG PREDICTOR AND A CONFOUNDING FACTOR FOR OSA

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Objectives: To identify clinical and epidemiological risk factors for OSA. To investigate if genetic heterogeneity exits between individuals at low and high risk for this factors.

Material and method: The study population comprises 387 subjects retrospectively assessed at the Internal Medicine Unit. In order to analyze the association between OSA and demographic/clinical data, we used logistic regression analysis. To select the independent determinants of OSA we used a stepwise regression model: The traits associated with $p < 0.05$ in this model were used as covariables for the genetic association study of OSA with the selected polymorphisms. We performed a genetic association analysis of 373 polymorphism (SNPs) selected through a genome wide association study for metabolic syndrome (MS) and its components. In order to test the independence of these associations with metabolic syndrome (ATP3 definition), and with waist

Table 1 (V-22)

		Controls (non abdominal obesity).		Cases (abdominal obesity).	
CHR	SNP	OR	p	OR	p
4	rs7677890	0.99	0.97	0.50	0.000758

Table 2 (V-22)

SNP	Controls (No MS) OR	p	Cases (MS) OR	p
rs2687855	1	0.98	0.43	0.0004
rs4299396	1.23	0.42	0.40	0.0005

circumference we performed a Breslow-Day test and a stratified analysis in cases and controls.

Results: Waist circumference (WC), is the strongest predictor of the occurrence of OSA in our population study (OR = 0.5, p = 1.76 E-46), MS is strongly associated with the occurrence of OSA ($p = 2.4 \times 10^{-20}$), although in the stepwise its effect is masked by the effect of WC. In the stratified analysis by the presence of abdominal obesity, the rs7677890 polymorphism (Chr 4) is not associated with OSA in the non obese population but it has a strong association with OSA in the obese population ($p = 7.6 \times 10^{-4}$, in the range determined by Bonferroni correcction) (Table 1). We have identified two SNPs with a significant effect in SM (Table 2).

Discussion: OSA and MetS share clinical determinants. In this study, we have observed that WC, the major determinant of MS, is the best predictor of OSA in our study. It is known that obesity and MS have a high frequency in OSA patients, and OSA patients have obesity and MS at a higher frequency than general population. Given this strong association, the presence of abdominal obesity and MS can be a confounding factors for the study of OSA. In our study, we have found evidence of genetic heterogeneity at three loci depending on the presence of abdominal obesity and MS.

Conclusions: WC is the strongest predictor of OSA syndrome in our study. The rs7677890 polymorphism showed association with OSA only in the abdominal obese subpopulation. Regarding the presence of MS, two SNPs (rs2687855 and rs4299396) showed evidence of association with OSA in the population with MS. The later illustrates how the presence of abdominal obesity and MS can be confounding factors for the identification of genetic factors for OSA.

V-24
FAT EMBOLISM SYNDROME AFTER BONE FRACTURE

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Objectives: We describe epidemiological, clinical, diagnostic and treatment aspects of fat embolism syndrome (FES) in our hospital.

Material and method: Retrospective and descriptive study of patients diagnosed with posttraumatic FES between January 2000 and December 2011.

Results: We evaluated 19 patients, 16 men and 3 women, with an average age of 27.47 years. All had long bone fractures, multiple in 78.9% of cases. The overall incidence was 0.14%. Respiratory symptoms were the most frequent (89.5%), followed by neurological symptoms (68.4%) and petechial rash (63.2%). The average time of presentation of the syndrome after admission was 42.47 hours. All patients underwent early stabilization of the fracture, respiratory support and prevention of pulmonary embolism and gastrointestinal bleeding. Steroids were not used in any case as prophylaxis and definitive surgical treatment had an average delay of 7.35 days. Average hospital stay was 33.56 days and average mortality was 10.5%.

Discussion: Epidemiological and clinical features of FES in our institution are similar to those in previous studies, except a lower incidence. It is difficult to make comparisons in this aspect, as incidence varies greatly depending on the type of fracture considered. In our study, we account only long bone fractures (femur, tibia and humerus). In the case of the femur, and also to calculate the overall incidence, we consider hip fractures, which may imply an underestimation of incidences.

Conclusions: The epidemiological and clinical features of FES in our sample are similar to those in previous studies. The incidence and mortality continue the downward trend of recent studies. The diagnosis is clinical and, since there is no specific treatment, prevention is essential. Once it is established, it causes a delay in definitive surgical treatment and increased length of hospital stay.

V-26
THE COMPUTER BOOK OF THE INTERNAL MEDICINE RESIDENT: VALIDITY AND RELIABILITY OF A QUESTIONNAIRE FOR SELF-ASSESSMENT OF COMPETENCES IN INTERNAL MEDICINE RESIDENTS

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Objectives: There are no simple and validated instruments for evaluating the training of internal medicine residents. Our aim was to analyze the reliability and validity of a computerized self-assessment method to quantify the acquisition of medical competences during the Internal Medicine residency program.

Material and method: All residents of our service participated in the study during a period of 28 months. Twenty-two questionnaires specific for each rotation (the computer-book of the Internal Medicine resident, CIMR) were constructed with items from three competence domains: clinical skills, communication skills and teamwork. Most items were scored on a scale of 1 to 5 (1 = min; 5 = max). Reliability was analyzed by measuring the internal consistency of items in each competence domain using Cronbach's alpha index. The validation was performed by comparing mean scores of clinical and communication skills and teamwork between senior and junior residents. Cut-off levels of competence scores were established in order to identify the strengths and weaknesses of our educational program. Finally, self-assessment evaluations were correlated with evaluations made by the medical staff.

Results: There was a high internal consistency of the items of clinical skills, communication skills and teamwork (Cronbach's alpha: 0.88, 0.75 and 0.90 respectively). We observed higher scores

of clinical skills competence in senior than in junior residents (3.6 versus 3.2; p = 0.005). Similarly, senior residents expressed higher scores of communication skills than junior residents (4.2 verses 3.9, p = 0.03). The correlation between self-assessment evaluations and medical staff evaluations was weak and did not reach statistical significance (r = 0.20; p = 0.06). CIRM questionnaires identified the strengths and weaknesses of our educational program. As strengths, our residents felt competent in the management of most prevalent medical conditions. However, low scores were obtained for funduscopic examination, placement of central lines, interpretation of chest and abdominal CT, management of vasopressors drugs, tracheal intubation and treatment of systemic autoimmune diseases.

Discussion: The monitoring of the acquisition of medical competences is especially important in the field of Internal Medicine, a specialty with a broad curriculum and a heterogeneous training between centers and countries. There are few experiences in the use of self-assessment questionnaires to identify the acquisition of medical competences during the Internal Medicine residency program. In our experience, CIMR was a reliable and valid instrument to analyze the progression in the acquisition of clinical and communication skills in a team of Internal Medicine residents. In addition, CIMR questionnaires allowed us to identify the strengths and weaknesses of our training program. The weak correlation observed between self-assessments and the evaluation made by staff physicians limits CIMR use for interindividual comparison. However, in our experience, CIRM was a potent instrument to guide resident mentoring.

Conclusions: The items of CIMR showed a high internal consistency and enabled to measure the acquisition of medical competences in a team of Internal Medicine residents. In addition, CIMR questionnaires allowed us to identify the strengths and weaknesses of our training program. This self-assessment method should be complemented with other evaluation methods in order to assess the acquisition of medical competences by an individual resident.

V-27
CHANGES IN BLOOD GLUCOSE LOWERING THERAPY IN PATIENTS WITH TYPE 2 DIABETES AFTER ADMISSION TO AN INTERNAL MEDICINE SERVICE

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Objectives: The main objective of this study was to compare the anti-diabetic treatment that patients with type 2 diabetes were receiving at home, before hospital admission, with the therapy administered during their hospitalization for any reason in a general internal medicine service in Spain. The secondary objectives were to analyze the feasible causes for the changes and to describe the epidemiological profile of these patients.

Material and method: The study was conducted on patients with type 2 diabetes on pharmacological anti-diabetic treatment, who were admitted at the Los Montalvos-Internal Medicine Service of the University Hospital of Salamanca (Spain) over six months. Participants were included in the study successively in order of admission. We collected patients' epidemiological data (age, sex and diagnosis) and data on their anti-diabetic treatment (pharmaceutical specialty, dosage, posology and administration device, if this was de case) that they were receiving at home (outpatient treatment) and during their hospital stay (inpatient treatment). Also, data were collected on their dietary compliance (nutritional survey), physical activity and adherence to treatment. An observational survey was conducted on the technique of applying insulin, when necessary.

Results: We studied 296 patients with diabetes, that corresponded to 37% of patients admitted to our service hospitalization wards during the indicated time period. Sixty four per cent were women, mean age: 79.3 years (SD: 7.38, range: 55-88). The most common diagnoses were hypertension (51.1%), renal failure (41.2%), heart failure (34.3%), anemia (33.4%), chronic obstructive pulmonary disease (32.3%), cognitive impairment (22.7%), ischemic heart disease (20.2%) and depressive syndrome (13.4%). Outpatient drug treatment: 140 patients (47.3%) were under insulin treatment and 186 (66.2%) were taken oral anti-diabetic agents. Forty patients (13.5%) received insulin associated with oral anti-diabetics. Patients treated with insulin used a pen device for its administration in 97.1% cases (136 patients) and 4 patients (2.8%) used the Inholet® system. The number of administrations of medication (insulin ± oral agents) was median: 2, range: 1 to 6. Outpatient non-pharmaco-logical treatment survey: 69.6% patients acknowledged do not properly observe the diet, 71.2% did not exercise regularly, 17.2% confessed to forget or not to administer some of the doses of their regular treatment (oral agents and/or insulin). In 32 patients treated with insulin (22.8%) the procedure of administration of insulin was incorrect (as judged by a nurse after observation of the patient's technique). Inpatient drug treatment: During their hospital stay, 25 patients (8.6%) did not need any anti-diabetic drug treatment, 43 (14.5%) maintained the same dose of oral anti-diabetic and/or insulin, 78 (26.3%) needed less treatment dose and 150 (50.6%) required higher doses of medication (insulin and/or oral antidiabetics).

Discussion: Treatment of diabetes is based on three pillars: diet, exercise and pharmacological treatment (insulin and/or oral anti-diabetics). It is common the failure to comply with diet, the lack of regular exercise and to make mistakes when administering insulin with the different types of devices, especially in the case of patients aged over 65. This entails that in many cases, when patients are admitted to hospital and they follow a strict dietary control and the treatment is administered correctly, needs of insulin and oral anti-diabetics decrease.

Conclusions: Although it is frequent that during hospital admission requirements of anti-diabetic medication increase (because of the effects of an acute disease, steroids use... that decompensate the glycemic profile) there is a high percentage of patients (34.9% in our study) that during hospitalization requires lower dosages of antidiabetic medication. This could be explained on the grounds that during admission dietary control is strict (but not at home), the prescribed dosage is followed correctly and administration of insulin is made by health professionals.

V-28
PRIMARY CARDIAC SARCOMA: CLINICOPATHOLOGY STUDY OF FOUR CASES

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Objectives: Primary cardiac tumours are a rare entity with a lifetime incidence of 0.0017 to 0.02% in autopsy series. Three-quarters of these tumours are benign with near 50% being myxomas. Metastatic involvement of the heart is over 20-30 times more frequent than primary cardiac tumours. Malignant heart neoplasms can be primary in origin, they can develop from direct extension of a neighboring tumour or be the manifestation of metastasis of a distant tumour. Primary neoplasms of the heart are extremely rare and are almost exclusively sarcomas with angiosarcoma, rabdomyosarcoma and fibrosarcoma in decreasing incidence. We describe the clinicopathological findings in four cases diagnosed of sarcoma of heart.

Material and method: The surgical database from our institution was reviewed for surgical resection of cardiac tumors from May 2003 to April 2012, and the benign and metastatic tumors were excluded. The clinical records for these patients were reviewed.

Results: Case report 1. A 67-year-old woman presented with epigastric pain and weight loss. A radiological and sonographic study was undertaken. A mass of 72 × 36 × 70 mm was discovered arising from the posterolateral wall of the pericardium. Videothoracoscopy with a biopsy were performed; the mass was considered as unresectable. The pathologic examination revealed a leiomyosarcoma. The patient was treated with adjuvant chemotherapy. After 5 months, the patient presented progressive heart failure and she died. Case report 2. A 69-year-old woman presented with sudden dizziness. The echocardiogram revealed a mass of size 50 × 50 mm in left atrium implanted in the mitral valve. She underwent surgery with a preoperative diagnosis of atrial myxoma. Median sternotomy was performed and was completely resected. The pathologic examination revealed a myxofibrosarcoma. Unfortunately 9 months later, she was readmitted to the hospital and died of congestive heart failure. Case report 3. A 54-year-old woman presented with fever, dyspnea and chest pain. The chest radiograph showed cardiomegaly. A Echocardiogram revealed severe pericardial effusion. Computed tomography (CT) and magnetic resonance scans demonstrated a 100 × 100 × 110 mm heterogeneous mass arising from the posterolateral wall of the pericardium extending itself to the superior and posterior wall of the left atrium, reaching the space between the pulmonary artery and the pulmonary veins. Median sternotomy was performed which revealed a cystic mass arising from the pericardium of the anterolateral wall of the left ventricle, invading the myocardium. The mass was deemed unresectable. After confirming the diagnosis of synovial sarcoma the patient was treated with adjuvant chemotherapy and radiotherapy. The tumour was considered to be in complete remission. After 26 months, the tumour relapsed with no response to therapy and she died. Case report 4. A 76 year-old lady presented with sudden onset of intense epigastric pain, with nausea and vomiting. A CT scan was undertaken and a left atrial mass of 53 × 29 × 60 mm was discovered as well as severe caliber change in the small intestine with data of ischemia. A median laparotomy was performed and 30 cm of jejunum were resected and sent for pathological examination with confirmation of transmural ischemia with acute peritonitis. Ten days later, median sternotomy was performed, the fosa ovalis was noted to be infiltrated by hard tumour that invaded the right inferior pulmonary vein and the endocardium near the mitral annulus. The neoplasm was removed. The pathologic examination revealed a stromal sarcoma. She was treated with adjuvant chemotherapy with recurrence and death after 5 months.

Conclusions: Primary cardiac sarcomas have a heterogeneous clinical presentation and a high degree of suspicion is needed to diagnose them. Surgery remains the cornerstone of the treatment and the role for adjuvant therapy remains controversial. These tumours are associated with a reduced survival despite adequate treatment.

V-29
ADIPONECTIN LEVELS IN PATIENTS WITH NEWLY DIAGNOSED HYPERTENSION AFTER TREATMENT OF VALSARTAN AND AMLODIPIN

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Objectives: Adiponectin is one of the adipocyte-derived hormones that have profound antiinflammatory and antiatherogenic properties, which is also thought to play an important role in the modulation of glucose and lipid metabolism. The aim of the present study was to investigate the effects of valsartan as an angiotensin II receptor antagonist, and amlodipine as a calcium channel blocker on the adiponectin level in patients with essential hypertension.

Material and method: Patients with a newly diagnosed essential hypertension were admitted to our internal medicine outpatient clinic. Exclusion criteria were secondary hypertension, atherosclerotic heart disease, diabetes, chronic kidney disease, thyroid dysfunction, chronic liver disease and other chronic diseases. Patients were randomized to one of the following intervention protocols: angiotensine II receptor blocker (valsartan, 80-320 mg/day) as group A or calcium channel blocker (amlodipine, 5-10 mg/day) as a group B. Serum adiponectine levels of the patient groups were measured before treatment and on the 12nd week.

Results: Study group consisted of 50 patients with a newly diagnosed essential hypertension (group A n = 28 and group B n = 22). Statistically significant difference was not detected among the groups in terms of age, sex and body mass index (BMI). (group A/B; mean age: 52.9/50.1, female: 22/13, male: 6/9, BMI: 30.3/30.4; $p > 0.05$). In the amlodipine group, there was a significant increase in the levels of adiponectin after treatment ($p < 0.05$) in comparison with valsartan.

Discussion: Dysregulated adipokine secretion contributes to the development of systemic low-grade inflammation, insulin resistance and metabolic syndrome. The coexistence of hypertension and low plasma adiponectin levels has an additive effect on the development of coronary heart disease and the associated mortality rate.

Conclusions: We found that amlodipine has increased the level of adiponectin more than valsartan. As a result, in the treatment of hypertension, prior knowledge of the levels of plasma adiponectin could be important in antihypertensive drug choice.

V-30
HEMOCHROMATOSIS (HH) FEATURES AND OUTCOMES OF C 282 Y HOMOZYGOTES (HZ) AND C 282 Y/H 63 DOUBLE HETEROZYGOTES (DHTZ)

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Objectives: To analyze differences between C282Y homozygotes and heterozygotes to C282Yand H63D patients with diagnosis of HH in Internal Medicine Departament.

Material and method: Study of all patients with diagnosis of HH attended in our department during 5 years. We analyzed age, gender, family occurrence, liver test, iron levels, genetic test, radiological images, treatment and follow-up.

Results: We present 25 patients, 18 male and 7 female, (51.1 ± 14.2 years-old). HZ for C282Y were 9 patients, 8 men (49.7 ± 20.3 years-old) DHTZ for C282Y and H63D were 16 patients, 11 men (52 ± 10. years-old). Patients were identified by abnormalities on routine blood test (16 hyperferritinemia, 7 hypertransaminasemia) or by screening test after a family member was diagnosed (6 cases). None had signs or symptoms related to HH. HZ objectifies a greater increase in alkaline phosphatase. All patients present high levels of ferritin and transferrin saturation, in HZ this increase was higher than in DHTZ. These differences were not significant except for transferrin saturation ($p < 0.005$). We recorded neither alteration in carbohydrate metabolism, hematology nor in coagulation. Determination of hepatic iron stores by MRI was performed in 9 patients. They were higher in HZ than DHTZ (143.8 ± 58.7 vs 56.6 ± 35 $p < 0.02$) All patients HZ and 6 DHTZ were treated with phlebotomy (once every two weeks). Normalization of iron levels

were achieved at 30 ± 18 months in HZ and 10.8 ± 6.6 months in DHTZ.

Discussion: HH is an autosomal recessive disorder in which mutations in the HFE gene cause increased intestinal iron absorption. HH remains the most common genetic disorder in Caucasians. HH is increasingly being recognized by clinicians and it can be further defined genotypically by the family occurrence of iron overload associated with C282Y homozygosity or C282Y/H63D compound heterozygosity. The vast majority is asymptomatic, with a low incidence of cirrhosis, diabetes or skin hyperpigmentation because many patients are diagnosed when elevated serum iron or ferritin levels are detected on a routine chemistry or when screening is performed in a relative diagnosed with HH. Other studies have suggested that these patients may be at increased risk for diabetes, colorectal cancer, and hematologic malignancies, but in our study we recorded neither alteration in carbohydrate metabolism nor in hematology. Phlebotomy once every two weeks was the treatment until the iron stores were normal (serum ferritin concentration < 50 ng/ml and transferrin saturation < 50 percent).

Conclusions: HH is increasingly being recognized by clinicians. HH are identified at a younger age because of abnormalities on routine blood test or by screening after a family member was diagnosed. They did not have complications at the time of diagnosis. All patients present high levels of ferritin and saturation transferrin, in HZ this increase was higher than in DHTZ. Treatment is phlebotomy. It is done once per week until the iron index is normal. This may require 9 to 12 months and it is usually needed for a lifetime.

V-31
CASE SERIES OF AMYLOIDOSIS WITH CARDIAC INVOLVEMENT AT THE UNIVERSITY HOSPITAL MARQUÉS DE VALDECILLA (HUMV)

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Objectives: Study the clinical characteristics of patients diagnosed as having amyloidosis with cardiac involvement at our hospital, analysing mortality and the usefulness of diagnostic tests.

Material and method: We performed a retrospective study of 19 patients (men 58%) with biopsy-proven diagnosis of amyloidosis and heart involvement at the HUMV (Santander, Spain) from 2007 to 2012. Age, diagnostic service, form of presentation and clinical manifestations were gathered from medical records. Proteinogram results and proteins in urine of 24h (> 150 mg/24h) were also included. We recorded the presence of arrhythmias, heart blocks, low voltage complexes (< 1 mV at precordial and/or < 0.5 mV at unipolar leads) and pseudo-infarction pattern (QS at anterior leads) in the EKG. We also took down the presence of left ventricular (LV) wall or interventricular septum thickening and LV diastolic or systolic dysfunction from the transthoracic ecocardiogram (TTE). The results from the gadolinium-enhanced cardiac magnetic resonance (CMR) and cardiac catheterization were evaluated. Localization of diagnostic biopsy and amyloid type were registered (primary amyloidosis (AL), secondary amyloidosis (AA), systemic senile amyloidosis (SSA) and familial neuropathic amyloidosis (ATTRm)), as well as treatment received and mortality.

Results: The average age at diagnosis was 68 ± 13 years. The service with the highest number of cases was Cardiology (37%),followed by Nephrology (10%) and Internal Medicine (5%). Dyspnea was the most frequent form of presentation (32%),followed by general syndrome (16%) and syncope (16%).More than half of the patients (53%) presented signs of right heart failure but only 26% presented signs of left heart failure. In a third of the cases there was a monoclonal band in the proteinogram and 60% of the cases had proteinuria. The most frequent arrhythmia in the EKG was atrial fibrilation (29%), being very infrequent (5%) the conduction alterations. Half of the patients had low voltages and 35% had an anterior pseudo-infarction pattern. A TTE was performed on 12 patients, most of them with LV wall thickening (92%) or interventricular septum thickening (42%). Diastolic dysfunction was more frequent than systolic (83% and 50% respectively). A CMR was performed on 3 patients (all with biventricular subendocardial late enhancement) and a cardiac catheterization on 5 patients (60% without coronary injuries). The diagnosis of amyloidosis was made during necropsy in 8 cases (42%), all of them with cardiac infiltration of amyloid material, by endomyocardial biopsy in 5 cases (26%), by bone marrow biopsy in 4 cases (21%) and by kidney and rectal biopsy in 2 cases. The most frequent type was AL, which affected 11 patients (58%), followed by SSA on 7 patients (37%). There was only one case of TTRm amyloidosis.70% of SSA cases were diagnosed by an incidental finding in necropsy; average age at diagnosis was 81 ± 7 years. 54% of patients with AL received treatment with melphalan-dexamethasone, 18% did not receive any treatment. A heart transplantation and a renal transplantation were performed on two different cases. Mortality in our group was 84% with a survival period of 4-8 months since diagnosis.

Discussion: Regarding cardiac involvement, AL was more frequent than SSA at our hospital. Dyspnea, along with right heart failure, are the main clinical manifestations on these patients.EKG and TTE are the most useful diagnostic tests. Patients with cardiac SSA are elderly and develop few clinical manifestations. Frequently, the diagnosis of this illness is made during necropsy. Mortality in our group is very high, so we consider necessary to make an early diagnosis of this illness so that a suitable treatment can follow.

Conclusions: Cardiac involvement of amyloidosis is an illness hard to handle that requires a high clinical suspicion as well as an adequate interpretation of tests aimed at an early diagnosis and treatment.

V-32
CONCORDANCE BETWEEN 1990 AND 2010 AMERICAN COLLEGE OF RHEUMATOLOGY (ACR) CRITERIA FOR THE DIAGNOSIS OF FIBROMYALGIA IN THE USUAL CLINICAL PRACTICE

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Objectives: Fibromyalgia (Fm) is diagnosed according to clinical criteria after the exclusion of other illnesses. The usual difficulty to strictly apply this criteria in the usual clinical practice has the immediate potential consequence of an over diagnosis of the entity.

Material and method: 57 patients with CIE 9 code MC 729.0 and 780.71 were found after revision of electronic database of the Centro de Salud of Cocentaina (Alicante, Spain). 46 patients were contacted by phone, 25 accepting an interview to apply ACR 1990 and 2010 criteria. No differences were detected comparing those patients interviewed (n 25) and those that refused participation (n 16).

Results: The majority (98%) of participants were middle aged (58.7 ± 10.4 yrs) women followed during 154.5 ± 469.5 months. Fm

diagnosis was confirmed by rheumatologist in 78.9% of cases. 64% and 72% had ACR 1990 and 2010 diagnosis criteria (p = 0.066) (Table 1). Patients accomplishing for 1990 criteria had a median of 14 (0-18) gathering points, a higher number than those without such dx (14.8 ± 0.7 vs 6.9 ± 1.8; p < 0.0001). This significant difference was also present comparing patients with or without 2010 dx criteria (13.8 ± 1.09 vs 7.3 ± 1.9; p = 0.005). There was not a significant difference comparing patients with 1990 (14.8 ± 2.8) and 2010 (13.8 ± 4.6) dx criteria. When 2010 criteria were considered, significant differences were detected comparing Widespread Pain Index (WPI: 2.3 ± 0.6 vs 4.7 ± 0.7, p = 0.049), and the Symptom Severity Index (SSI: 6.2 ± 0.5 vs 4.4 ± 0.4; p = 0.064) values comparing patients with or without such Fm criteria. The most frequent SSI2 manifestations were muscle pain, stiffness and muscular weakness (100% prevalence each). Other frequent manifestations were fatigue (87%), depression (75%), anxiety and insomnia (69% each). The only significant (p = 0.018) difference considering SSI2 manifestations was referred to muscular weakness (100% vs 71.4%). Altman-Blond method showed a moderate (Kappa 0.453; p = 0.021) concordance between 1990 and 2010 diagnosis criteria for Fm.

Discussion: A third of patients previously diagnosed as having Fm don't accomplish any ACR criteria. There are a moderate concordance between 1990 and 20101 ACR criteria, with 2010 version classifying more patients as having Fm. In both cases, musculoskeletal manifestations are the most frequent. In our experience application of 2010 criteria spends about 40-50 minutes/patient.

Conclusions: Over diagnose is a frequent fact in Fm. One way to correct this over diagnose is to improve the application of recognized dx criteria. It seems from a practical point of view that the application of 1990 ACR criteria is easier and more feasible to be applied in the usual clinical practice.

Table 1 (V-32). Diagnostic concordance between 1990 and 2010 criteria for the diagnose of Fm

Diagnostic criteria		ACR 2010	
		Yes	No
ACR 1990	Yes	14	2
	No	4	5

V-33
INTERDEPARTMENTAL REFERRALS MADE TO AN INTERNAL MEDICINE UNIT OF A UNIVERSITY HOSPITAL IN THE SOUTHERN SPAIN

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Objectives: To analyze the number of referrals made to Internal Medicine by Surgical and Medical Departments during the period of October to December of 2011 and to assess the comorbidity and degree of implication of these departments in the diagnostic process.

Material and method: We examined all referrals made to Internal Medicine Department of the Carlos Haya University Hospital of Malaga, an accredited centre for training resident physicians. The medical specialties covered by the hospital that function independently of the Internal Medicine department are: Allergy, Cardiology, Digestive Medicine, Endocrinology, Haematology, Nephrology, Pulmonology, Medical Oncology, Neurology, Psychiatry and Rheumatology. The surgical area is composed by Cardiovascular Surgery, General and Digestive Surgery, Neurosurgery, Plastic Surgery, Oral and Maxillofacial Surgery, Orthopaedic Surgery and Traumatology, and Othorhinolaryngology. We analyzed: department which made the referral, type of referral (normal, on day, urgent), reason of the referral, comorbidity and the PROFOUND index, degree of implication of the medical or surgical department, final diagnosis.

Results: During the study period 51 referrals were made. 66.6% of them were from Surgical Departments. Orthopaedic Surgery and Traumatology most often requested interdepartmental referral followed by General and Digestive Surgery and Cardiovascular Surgery with 17.6% (9), 13.7% (7) and 13.7% (7) respectively. The intervention of internist was requested at the same day in 68.6% (35) of cases and urgently in the 13.7% (7). The mean age of the sample was 62.8 ± 19.5 years with 54.9% of men. The most common comorbidities were hypertension (51%), diabetes mellitus (25.5%) and dyslipidemia (25.5%). The 41.2% (21) were polypathological patients and of these 13.7% (7), 17.6% (9) and 9.8% (5) had a low, intermediate and high Profound Index respectively. The most common symptoms were dyspnea 13.7% (7), followed by fever 7.8% (4) and high blood pressure. Metabolic disorders were frequent as well, representing 11.8% (6). We defined the degree of implication in the diagnostic process as low, medium or high regarding the possible diagnosis established or complementary tests required by the implicated department before the referral was made to our department. Thus, we considered "low implication" when they referred to us at the first sight, 70.6% (36), "medium" when they contact after requesting complementary tests, 21.6% (11) and "high" when the referral was made after a clear diagnosis. In our sample none of the referrals had a diagnosis.

Conclusions: Of all interdepartmental referrals made to Internal Medicine, those requested by surgical departments were the most frequent and 68.6% were requested on the day. The most common symptom referred was dyspnea. Of these referrals, 41.2% were of patients with important comorbidities and complexity and the degree of implication of the responsible physicians was low. Thus, the interdepartmental referral represents an important additional work load and dedication of the duty internist.

V-34
DESCRIPTIVE ANALYSIS OF THE CLINICAL PROFILE IN PATIENTS WITH MYOPERICARDITIS REQUIRING HOSPITALIZATION IN 2011 IN A SPECIALICED HOSPITAL OF THE SSPA

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Objectives: We proceed to analyze those features presented by patients diagnosed of myopericarditis, making visible the common findings of our group of patients. It is important to know these things, since this pathology is one of the etiologies that are associated in the differential diagnosis of acute chest pain in young patients, can be offered as trascendent early signs in diseases such as those of neoplasic or autoimmune origin.

Material and method: The results were analyzed based on the characteristics of a descriptive study. We included patients admitted to our hospital which having chest pain, went to the Emergency Department of Universitary Hospital of Puerto Real during the year 2011. Variables studied: sex, age, etiology, history of heart disease, hemodynamic status and clinical outcome.

Results: Total patients: 8 patients. Average age: 33 years (41.6% below 30 years). Total: 2,041% of patients were admitted to the

Service in 2011. 8.33% history of heart disease, Etiology found in 8.3% of cases, and these viral etiologies and neoplastic causes. Evolution: no hemodynamic instability 91.67%. Average discharge: 3 days.

Discussion: This pathology has plenty different etiologic agents, more or less defined, presenting the highest prevalence the one caused by infectious agents, being the most predominant cause viral agents (including adenovirus, arboviruses, arenaviruses, Coxsackie, Epstein-Barr virus, cytomegalovirus, among others), but we must not forget those non-infectious agents (autoimmune diseases, neoplastic, metabolic, etc). This pathology is usually diagnosed relatively frequents by Emergency Services Cardiology or after the evaluation of the symptomathology and diagnostic tests such as echocardiography or ECG.

Conclusions: In conclusion, we find that myopericarditis is usually a benign pathology in the vast majority of cases, but we should not rule out the monitoring of these patients, it may be a secondary pathology subsidiary of treatment processes such as neoplasia or autoimmune diseases.

V-36
EPIDEMIOLOGICAL STUDY OF UPPER GASTROINTESTINAL BLEEDING IN THE PATIENTS ADMITTED IN THE INTERNAL MEDICINE I UNIT OF THE UNIVERSITY HOSPITAL COMPLEX OF SALAMANCA IN A PERIOD OF 2 YEARS

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Objectives: Retrospective study of patients with a diagnosis at arrival was upper gastrointestinal bleeding (UGIB), who were admitted in the Internal Medicine I Unit in a period of 2 years, in order to establish their clinical and biological characteristics, age, sex, associated diseases, gastroerosive drug use, impact of the bleeding and death rate.

Material and method: We gathered the clinical records of all patients with UGIB diagnosis from January 2010 to December 2011 which included complete anamnesis, complete blood count, renal function, ions, endoscopic tests (gastroscopy, endoscopic ultrasound)diagnostic arteriography, biopsy and death. The impact of the bleeding was classified as: slight: < 15% or between 500-750 ml; moderate: 15-25% or 750-1,250 ml; severe: 25-35% or 1,250-1,750 ml; and massive: > 35% or > 1,750 ml. The statistics were made with SPSS.18 for the analysis of the descriptive frequencies, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: 121 patients were analyzed, and 50 were ruled out because they did not meet the requirements. Out of the remaining 71 patients, 43.7% were women with an average age of 84 years and 56.3% were men with an average age of 78 years. 21.1% of the patients were hypertense and 19.7% were diabetic, with ischemic cardiopathy in 11.3% of the cases. With regard to the associated disease, recent abdominal surgery was found in 22.5% of the patients, ulcer in 15.5%, cancer in 14.1% and hiatus hernia in 5.6%. The most common symptoms were melena in 56.3% of the cases and coffee ground vomit in 29% of the cases. No iatrogenic medication was found in 42% of the cases. 29.6% of the patients received antiaggregants (52.4% of the women), 15% received anticoagulants (54.5% of the women) and 12.7% received NSAIDs (22.2% of the women). The difference between sexes was statistically significant. The gastroscopy was diagnostic in 89.2% of the cases. There was an endoscopic diagnosis of acute gastric mucosal lesions (AGML) in 21.2% of the cases, duodenal ulcer in 15.5% of the cases, gastric ulcer in 14% of the cases and peptic esophagitis in 11% of the cases. A biopsy was performed in 16.9% of the cases. The impact of the bleeding was slight in 62% of the cases, moderate in 32% of the cases and massive in 4.2%. No statistical comparison was made between the hemoglobin levels and the degree of the impact, except in the case of moderate bleedings. The death rate was 4.2%, with a statistically significant association with massive bleeding and male sex ($p < 0.001$).

Conclusions: Patients with UGIB admitted in the Internal Medicine I Unit are elderly men with recent previous abdominal surgery, diabetic, hypertense and with ischemic cardiopathy, who receive NSAIDs. For this reason, the diagnosis of AGML is the most common one. Melena is the most common symptom. We may highlight that the use of antiaggregants and anticoagulants is not related with the severity of the bleeding. The hemoglobin level does also not correlate with the degree of hemodynamic impact. The importance of endoscopy in the first 12 hours for diagnosis and treatment is also remarkable. Death is statistically associated to the amount of bleeding, and it does not depend on age in our series, contrary to what has been published in the literature.

V-37
ECONOMIC ANALYSIS OF A HOSPITAL AT HOME UNIT: COMPARISON WITH CONVENTIONAL HOSPITALIZATION

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Objectives: The main aim of this study is to find out the efficiency of managing patients at home, with a specialized unit, versus the standard only-in-hospital attendance. Other objectives are: 1. To determine the costs associated to a Hospital at Home (HaH) unit belonging to a tertiary Spanish hospital. 2. To describe the costs of stays in three different departments and estimate them according to cost per weighted case (CPWC).

Material and method: Retrospective analysis of the direct and indirect costs associated to the attention of inpatients in three Departments at a University Hospital in Spain in 2010. We collected data regarding HaH, Neumology (NML) and Internal Medicine (IM). We selected NML and IM as they provide more than 80% of the total patients admitted to HaH. We asked economic management for the following data: description of total costs of HaH, NML and IM, costs per stay, CPWC. We asked for the coding for total admissions and mean weghted case in 2010 for those Departments.

Results: Table.

Discussion: HaH units are well-known alternatives to conventional hospitalization. Selected patients admitted to HaH remain as safe

Table (V-37)

Service	Mean weight	Cost per stay	Mean cost per discharge	CPWC	Total costs
HAD	1.46	219	2232	1529	819.390
NML	2.65	424	2550	1526	3.368.884
MI	2.13	576	7290	3433	13.544.824

as those in the hospital, with less nosocomial infections, and they class these units as top-quality health attention. A little less is known about their efficiency in terms of economic expenses compared to conventional hospitalization. Several articles conclude that costs are equal, but newer data suggesting better outcomes, not only on health but on reducing costs are being released. In these times of reducing budgets, especially in healthcare, the more efficient the more appropriate, without narrowing medical care quality. Our data shows that stay costs at HaH are lower that MI or NML ones, and it remains the same when we adjust that on mean weighted case (an internationally accepted way to measure clinical complexity). These savings come from different places: hospital maintenance, less staff (no clinical assistants or porters at home), less staff hours (HaH units are supported by emergency extrahospitalary units at night) and less staff per patients (evenings are supported by only one nurse and one on-call physician). HaH costs are bigger in terms of transportation, whether this is by rented cars, taxis or owned cars. This study has several limitations, as it is retrospective, it doesn't consider non-sanitary costs at home (electricity, food and water supply, caregiver activity...) and HaH costs often do not include those from the emergency department as NML or IM costs do.

Conclusions: 1. Our HaH unit is an efficient way of providing medical care to selected patients, as it may be cheaper than conventional care while providing high rated assistance. 2. These units could help to reduce (or not to improve) health budgets without lowering the quality ofassistance. 3. More economic studies are needed to establish HaH efficiency.

V-39
PHARMACOLOGICAL MANAGEMENT OF SPANISH PATIENTS WITH FIBROMYALGIA. PRIMARY CARE EXPERIENCE

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Objectives: The objective of this descriptive study is to assess which drugs are usually being used for the treatment of Fm in a Spanish Primary Care Health Center.

Material and method: 57 patients with CIE 9 codes MC 729.0 and 780.71 were found after revision of electronic database of the Centro de Salud of Cocentaina (Alicante, Spain).

Results: 25 of 57 identified patients (98% women 58.7 ± 10.4 aged) diagnosed of Fm (mean follow up 154.5 ± 469.5 months) agreed to be included. A presential interview was made with 25 patients about actual medication and potential secundarisms as well as to apply ACR 1990 and 2010 diagnostic criteria. Globally high and heterogeneous drug consumption was detected, with (median and interval) 6 (1-24) daily drugs per patient. The main amount of drugs were for Fm (61% of all), with a median of 3 (1-14) and 2 (0-16) drugs per day taken for Fm and other conditions respectively. 94% of patients were on analgesics, mainly NSAIDs. 29% of patients were taking opioids, all of them minor ones. Only 42% of the patients were taking pregabalin. Although the median for the use of NSAIDS was one/day, one third of patients using NSAIDs were having more than one (Median 1, interval 0-5). At the time of the presential interview, 16% of the 25 interviewed patients described epigastralgia/pyrosis without any other apparent secondary effect. The total estimated annual global pharmacological (reference prices for each drug) cost is 7,098.36 Euros, corresponding the highest cost to ansiolitics/antidepressants (37.6%) and NSAIDs (36.5%), pregabalin (15.6%), acetaminophen alone or combined (9.6%), and tramadol (0.5%).

Discussion: Patients with Fm have an elevated consumption of drugs. The mostly used drugs are NSAIDS as well as those drugs with antidepressants/ansiolitic effects. It is noteworthy the high number of patients having more than one NSAIDS as well as the low proportion having pregabalin. Secondary effects are all gastrointestinal and attributable to the use of NSAIDs.

Conclusions: Pharmacological treatment of Fm is clearly improvable, lowering consumption of NSAIDs as well as antidepressants/ansiolitics and increasing the use of pregabalin. However the best action would be to improve the correct diagnosis of Fm.

V-40
EARLY MORTALITY IN INTERNAL MEDICINE AND PALLIATIVE CARE

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Objectives: To compare patients' characteristics admitted either to the Internal Medicine Department (IMD) or the Palliative Care Unit (PCU) with early mortality (defined as that occurring in the first four days after admittance).

Material and method: Retrospective and descriptive study of patients admitted to the IMD or PCU between January, 1st 2010 and December, 31st 2011 dying in the first four days of hospitalization. The variables analyzed were age, sex, main and secondary diagnosis expressed as diagnostic related group (DRG) and the 3 most frequent therapeutic or diagnostic procedures performed to the patients during the admittance period.

Results: A total of 634 deaths among 6,706 (9.45%) admittances were identified with 32.2% (n = 204) occurring in the first four days. Table 1 shows the main results for both groups.

Conclusions: 1) The global incidence of early mortality in our population was 32.2% and it was somewhat higher in PCU than in IMD patients due to the higher incidence of neoplasic disease in the former group. 2) Patients in CPU are younger and more frequently readmitted. 3) In both groups the most frequent diagnosis is pneumonia (DRG 541) although in CPU patients were younger for the same DRG. 4) The most usual procedure in CPU was IV treatment while in IMD a diagnostic test such as CT scan was the predominant one.

V-42
EVALUATION OF THE RESPONSE TO THE PRIMARY HYPERPARATHYROIDISM WITH CINACALCET TREATMENT

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Objectives: Primary hyperparathyroidism (HP) is a common endocrine disease, caused by a primary disorder of one or more parathyroid glands which is characterized by inadequate secretion of parathyroid hormone (PTH) therefore an alteration in the metabolism of calcium, the most significant hypercalcemia. Today most frequently cases have been detected of HP with calcemias bit rates (< 11.5 mg/dl) with any or none clinical symptoms. Most are women over 50 years that found in laboratory screening parameters or evaluation of individuals with low bone mass or stones. This new

Table 1 (V-40). Characteristics of CPU and IMD patients

Total	CPU		IMD		
Patients (%): 204 (32.2)	120 (58.8)		84 (41.2)		
Mean age (SD): 79.5 (15.2)	72.4 (13.3)		82.3 (13.1)		p = 0.000
Sex (%): Males (62.3)	69.2		52.4		p = 0.015
Main diagnosis					
Neoplasia (%)	67.5		9.5		
Infections (%)	8.3		29.8		
Cardio-pulmonary (%)	5		20.2		
Cerebrovascular (%)	4.2		12		
DRG*	DRG (%)	AGE (DE)	DRG (%)	AGE (DE)	
	541 (20)	72.2 (12.9)	541 (28.6)	82.2 (15.3)	p ≤ 0.000
	082 (7.5)	78.5 (6.1)	544 (12)	87.4 (4.8)	
	552 (6.7)	80 (9.28)	553 (8.3)	76.9 (19.5)	
Readmitance (%): 94 (46)	68 (72.3)		26 (27.7)		p = 0.000
Procedures					
IV Treatment (%)	34.2		8.3		
CT scan (%)	15.8		23.8		
Oxygen therapy (%)	10		10.7		

*GRD 541: simple pneumonia and other respiratory disease with mayor complication but not asthma or bronchitis. GRD 544: heart failure, cardiac arrhythmia. GRD 082: respiratory neoplasias. GRD 552: digestive tract diseases except oesophagus, gastroenteritis and uncomplicated ulcus. GRD 533: nervous system diseases except TIA seizures and cephalea with mayor complication.

scene has resulted that in some patients the conservative medical monitoring, result sufficient. In our work we will analyze the response to treatment with cinacalcet (oral calcimimetic that acts on the calcium sensing receptor, which is the principal regulator of PTH synthesis and release) in patients with HP, who have medium symptomatology.

Material and method: This is a descriptive study of patients attending at a endocrinology consult from a Comarcal Hospital, diagnosed with hyperparathyroidism, treated with cinacalcet, during the period between January 2009 to March 2012. Would be obtained medical history, physical examination, laboratory parameters (calcium, phosphorus, and PTH) and scintigraphy parathyroid, and date of initiation of treatment, dose and follow-up.

Results: We obtained three patients, all female, mean age 69 years. The present clinical symptoms were asthenia, bone pain, polydipsia, polyuria. One of them started the treatment with 60 mg/dl and the others with 30 mg/dl, not being necessary dose adjustments in the monitoring, although in one of them, the last control presented a slight increase of calcemia serum compared with the previous, but we chose to associate bisphosphonates because of the osteoporosis. The mean calcium prior to starting treatment was 11 g/dl, falling in the first control after cinacalcet to 9.32 g/dl. After an average of two years of treatment the calcium stayed around 9.42 g/dl. The mean baseline PTH was 125pg/ml, in the first test after treatment there was a marked descent 103 pg/dl, however in the last test results after 2 years of treatment, the average of PTH was around 150 pg/dl.

Discussion: In our study we analyzed the response to cinacalcet in patients in which treatment is chosen with medium intensity symptoms and normal parathyroid scintigraphy. The response of serum calcium after treatment with cinacalcet is similar to that described in previous studies, with a major decrease of 1.5 mg/dl. Perhaps PTH levels were not expected, but these results are not very valuable because the patients have not been performed laboratory parameters between 2-4 hours after taking drug, which is the maximum of blockade peak from calcium channels.

Conclusions: We concluded that cinacalcet in patients with normal parathyroid scintigraphy and medium symptomatology is a therapeutic option to keep calcium levels in normal range.

V-43
ANALYSIS OF THE FIRST 100 PATIENTS WITH ADENOPATHIES ADMITTED TO THE RAPID DIAGNOSTIC UNIT OF INTERNAL MEDICINE

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Objectives: Accomplish a descriptive analysis of patients referred to the Rapid Diagnostic Unit (RDU) of Palencia Care Complex (PCC) to study their adenopathies between the years 2008 to 2012. Describe the relationship between the different features of the lymph nodes and possible tumor causes.

Material and method: Descriptive analysis from the database of the PCC RDU (a second level hospital of Castilla y León region) for the years 2008 to 2012. Analyzing the age and sex of patients, the size and location of lymphadenopathy and final diagnoses. By the Chi-square we have analyzed the possible relationship of the variables described with the existence of a neoplasm. For the statistical analysis used the SPSS 15.0 program.

Results: During this period 100 patients with lymphadenopathy were treated (5.7% of total), 54% were male, mean age ± standard deviation of 48.1 ± 21.1 years. The location of the lymphadenopathy was: 40% lateral cervical, supraclavicular 15%, 13% axillary, inguinal 10% and 22% in other locations. The size of the lymphadenopathy were less than 1 cm in 21% of cases, between 1 and 5 cm in 68% and greater than 5 cm in 11%. Finally, 39% of the patients studied were suffering a neoplasm, of which 19% were hematologic lineage, 10% derived from head and neck and the remaining 10% were of another race. (breast carcinoma, porocarcinoma and metastases of different origins). We have only demonstrated a statistically significant relationship between the existence of tumor, age and size of the lymphadenopathy, being higher the prevalence of tumors with lymph node from 1 to 5 cm and in the group of larger than 5 cm, being more prevalent in the patients between 30 and 70 years and group of people over 70 years. No significant relationship was demonstrated between the location or sex with the existence of neoplasia.

Discussion: Statistically significant relationship was found between the presence of tumor and lymph node size greater than 1

cm. We recommend a conservative approach in patients under 30 years with lymphadenopathy of less than 1 cm.

Conclusions: Thirty-nine of patients admitted with lymphadenopathy in our clinic were diagnosed with a neoplasm.

V-44
CHARACTERISTICS OF PATIENTS RECEIVING NON-INVASIVE VENTILATION OUTSIDE NON-INVASIVE VENTILATION UNIT (NIVU) IN AN AREA HOSPITAL OF MURCIA

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Objectives: To determine the clinical characteristics of patients receiving NIV outside NIVU beds.

Material and method: Retrospective observational study of patients ventilated outside NIVU beds during 12 months. Sampling Method: Consecutive (January-December 2011). Data Source: Records all the consultants made to the Pneumology department and NIVU, medical records and arterial blood gases.

Results: The number of patients treated with NIV in the hospital outside the NIVU was 39. Eighty-seven percent of these patients (34) were admitted to the Department of Internal Medicine (IM). Average age: 77.3 years (51-93). Men 16 (41%), Women 23 (59%). The diagnoses of the NIV indications outside the NIVU are reflected in table 1. Charlson Index: 5.9 points (0-13). Arterial blood gases: pH 7.31 (7.15 to 7.47), pCO_2 68.2 mmHg (40-112), pO_2 55.8 mmHg (40 - 81). Respiratory acidosis (pH < 7.35): 24 patients (61.5%). Intolerance to NIV was seen in 12 patients (31%). Transfer from IM to pneumology department in 4 patients (10%). The outcome was positive in 36 patients (92%) and exitus letalis in 3 (8%). Home therapy at discharge in patients who received NIV outside NIVU beds are reflected in table 2.

Discussion: 90% of ventilated patients outside of NIVU beds are admitted to the Department of Internal Medicine. COPD exacerbations and overlap syndrome (apneas-hipopneas syndrome + COPD) is the leading cause of NIV outside the pneumology department (30.7%). Heart failure (28%) and obesity-hypoventilation syndrome (23%) were the main causes for the use of NIV outside NIVU. 92% of the patients who received NIV outside NIVU evolved favorably.

Conclusions: Noninvasive ventilation (NIV) is used in either acute or chronic respiratory failure to relieve dyspnea, reduce work of breathing, correct gasometric alterations and avoid intubation. Clinical practice guidelines recommend the use of NIV in severe COPD exacerbations and cardiogenic acute pulmonary edema.

V-45
A GLANCE AT THE ADHESION ON ACTIVITIES OF SELF-CARE IN DIABETES

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Objectives: Assess the diabetes self-care in a sample of individuals observed in an outpatient diabetology medical consultation.

Material and method: We applied the Summary of Diabetes Self-Care Activities scale translated and adapted to Portuguese. Sixty-six questionnaires were completed.

Results: The mean adhesion in 7 days for self-care activities were (in days): 4.97 (having a healthy diet); 4.74 (following eating plan); 3.83 (Eating 5 or more pieces of fruit or vegetable); 4.50 (eating red meat); 2.74 (bread at meals); 5.89 (mixing carbohydrates); 6.08 (2 or more cups alcoholic drink at meals); 6.47 (alcoholic intake outside meals); 5.80 (eating aliments with sugar); 5.11 (sweeten drinks with sugar); 1.6 (physical activity at least 30 min.); 1.58 (specific physical exercise sessions); 5.24 (blood sugar assessment); 5.44 (blood sugar assessment as recommended); 5.18 (examining feet); 6.29 (washing feet); 5.29 (drying between toes); 6.62 (taking medications/insulin as prescribed); 6.32 (taking indicated number of medicine/insulin units); 0.21 (smoking).

Discussion: The activity with greater mean adherence refers to pharmacologic therapy, reflecting good therapeutic compliance, which may be justified by the majority of subsequent consultations. The mean level of HbA1c of 8.3% suggests that diabetes control goes far beyond drug prescription, emphasizing the role of other activities of self-care and adoption of a healthy lifestyle. The smoking habits seem to reflect the effectiveness of quit smoking campaigns among diabetics. The lowest mean adherence was observed in the participation in practice of regular physical activity, values possibly explained by the mean age of this sample (63.3

Table 1 (V-44). Diagnostics indication of NIV outside the NIVU

HF	OHS	COPD	Overlap	OHS+HF	IPF	ALS	Pneumonia
11 (28.2%)	9 (23.1%)	7 (17.9%)	5 (12.8%)	3 (7.7%)	2 (5.1%)	1 (2.6%)	1 (2.6%)

ALS: Amyotrophic lateral sclerosis, IPF: Idiopathic pulmonary fibrosis, OHS: Obesity hypoventilation syndrome, HF: Heart failure, COPD: Chronic obstructive pulmonary disease.

Table 2 (V-44). Home therapy at discharge in patients who received NIV outside the NIVU beds

HOT	HOT + NIV	No	HOT + CPAP
19 (48.7%)	16 (41%)	3 (7.7%)	1 (2.6%)

HOT: Home oxygen therapy, CPAP: Continuous positive airway pressure, NIV: Non-invasive ventilation

Table 1 (V-45). Age, time since diagnosis and HbA1c level

	Mean	Median	Mode	Minimum	Maximum
Age (years)	63.3	64.0	60.0	23	86
Time since diagnosis (years)	17.5	15.0	15.0	1	55
HbA1c level (%)	8.3	8.3	8.3	5.3	11.4

years). Although Portugal is being included on geographic region of Mediterranean diet, the adherence concerning alimentary patterns may expose the globalization of the type of diet.

Conclusions: The observed adherence to self-care activities was very different. Some of them presented very satisfactory results (particularly intake of drugs or insulin as prescribed and smoking abstinence), while for others the adhesion values observed were very low. In the latter, it will be fundamental to develop strategies for changing habits (especially with regard to physical activity). The smoking cessation campaigns seem to have been effective in the diabetic population and should be maintained and encouraged. They may even be an example for further activities to promote self-care. It could be concluded that it is easier to adhere to the pharmacological treatment. This study highlight the need for self-care campaigns especially directed to diet and physical activity. The future may include the strengthening of patient education and its reassessment at each visit, although limited by the short time available.

V-46
ARE THERE DIFFERENCES IN PRESCRIPTION OF STATINS BY THE DIFFERENT HOSPITAL DEPARTMENTS?

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Objectives: The statins are potent inhibitors of cholesterol biosynthesis. They are widely available, inexpensive, and represent a potent therapy for treating elevated cholesterol. The objective of this study was to analyzed the statin prescription patterns in the different hospital Department in 2011.

Material and method: Observational, retrospective study. Data on statin prescriptions were retrieved from the Pharmaceutical Inspection Service of the Health Management Zamora Area. We analyzed the use of statins in the Hospital Departments that typically prescribed: Cardiology, Endocrinology, Internal Medicine, Nephrology, Neurology and Emergency Department in 2011.

Results: See Table 1.

Discussion: There are differences in the prescription of statins in analyzed Departments. Internal Medicine is the most prescriber Service.Atorvatatin is the most widely prescribed statin in all Departments except for Cardiology. Endocrinology and Nephrology have the same pattern of prescription. Cardiology opts for new statins: rosuvastatin and pitavastatin. Fluvastatin and pravastatin are rarely prescribed in all these Departments.

Conclusions: 1. There are differences in the pattern of prescribing statins according to the Department. 2. Rosuvastatin is the most prescribed in Cardiology and is second in Endocrine, Internal Medicine, Nephrology and Emergency Prescription. 3. It's amazing the prescription of pitavastatin given the short time it has been available in Spain. 4. The prescription of fluvastatin and pravastatin is low in all Department.

V-47
ACQUIRED METHEMOGLOBINEMIA. REVIEW OF CASES ADMITTED TO OUR HOSPITAL IN THE LAST TEN YEARS

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Objectives: The purpose of this review is to determine the characteristics of hospitalized patients with acquired methemoglobinemia (MetHb) in the last 10 years.

Material and method: We reviewed the medical history of the patients who were admitted to our hospital between 2002 to 2012 and presented acquired MetHb as principal diagnosis.

Results: We found 7 cases of MetHb (described in table 1), most of all in pediatric age (71%) who had eaten mash of different vegetables and legumes, cooked 2-4 days ago, and stored in refrigerator. All of them presented acral cyanosis and, in case 4 and 5, metabolic acidosis. Case 6 is an overdosage of topical anesthetic (lidocaine and prilocaine) prior of a cosmetic procedure. The self-administered dose exceeded 450% of the maximum, which was applied to a wide body surface area. He came to emergency department with generalized cyanosis with neurological symptoms as paresthesias in arms and sleepiness. Patient number 7 is a woman with chronic renal failure on hemodialysis program who presented persistent MetHb even with treatment with methylene blue.

Discussion: Methemoglobinemia is a blood disease in which the haemoglobin iron in the ferrous state (Fe 2 +) is oxidized to the ferric (Fe 3 +). It often appears in childhood, due to poor conservation of some foods, as in our first 5 cases. There are some cases in literature related to local anesthetic, as case 6, which usually have a positive evolution. Hemodialysis-related cases are unusual.

Conclusions: Despite being a rare pathology, MetHb is a potentially fatal disease. It is recommendable to consume cooked vegetables immediately or after refrigerated or frozen. On the other hand, the incidence of MetHb is increasing because of the use of local anesthetics in cosmetics procedures. These drugs should be used with responsibility.

Table 1 (V-46). Results

	Cardiology	Endocrinology	Internal medicine	Nephrology	Neurology	Emergency
1	Rosuvastatin (45.3%)	Atorvastatin (45.3%)	Atorvastatin (39.4%)	Atorvastatin (55.6%)	Atorvastatin (69.1%)	Atorvastatin (57.5%)
2	Atorvastatin (22.9%)	Rosuvastatin (20.3%)	Rosuvastatin (26%)	Rosuvastatin (20.4%)	Simvastatin (19.2%)	Rosuvastatin (32.3)
3	Pitavastatin (4.86%)	Simvastatin (17.2%)	Simvastatin (20%)	Simvastatin (16.4%)	Rosuvastatin (11.7%)	Simvastatin (5.3%)
4	Simvastatin (10.7%)	Pitavastatin (7.8%)	Fluvastatin (9%)	Pitavastatin (5.6%)		Pitavastatin (2.7%)
5	Pravastatin (4%)	Pravastatin (7%)	Pitavastatin (3.2%)	Pravastatin (1.2%)		Fluvastatin (1.4%)
6	Fluvastatin (2%)	Fluvastatin (2.3%)	Pravastatin (2.4%)	Fluvastatin (0.8%)		Pravastatin (0.8%)
Number of prescriptions	397	128	651	250	94	230

Table 1 (V-47). Characteristics of cases of methemoglobinemia (2002-2012)

Case	Age	Underlying disease	Associated factor	Methemoglobin (%)	Treatment	Outcome
Case 1	10 months	None	Vegetables and legumes	28.6%	Methylene blue	Favorable
Case 2	7 months	None	Vegetables and legumes	Unsolicited	Methylene blue	Favorable
Case 3	11 months	Down Syndrome	Vegetables and legumes	Unsolicited	Methylene blue	Favorable
Case 4	7 months	None	Vegetables and legumes	53.7%	Methylene blue	Favorable
Case 5	5 months	None	Vegetables and legumes	23.9%	Methylene blue	Favorable
Case 6	36 years	None	Topical anesthetics	10.1%	Methylene blue	Favorable
Case 7	76 years	Chronic renal failure	Unknown	4.6%	Methylene blue	Death

V-48
DETECTING ADVERSE DRUG EVENTS AT HOSPITAL ADMISSION

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Objectives: Knowing the incidence of adverse effects of medicines in order to identify which could be prevented and which are the most common.

Material and method: It's evaluated patients admitted in a department of Medicine along two months. It is an observational and prospective study. We included clinic data, blood test and the previous patients' treatment. Detecting adverse effects we used first of all, an algorithm called Karch Lasagna who determines the relation of cause between the adverse effect and the suspected medicine and then, the algorithm of Schumach and Thorton who asses if we were able to prevent them.

Results: We obtained 138 patients, 50 (36.3%) showed signs of alert of a possible adverse effect, with definitive relation of cause in 5.1%, probable in 14.5%, possible in another 14.5% and improbable in 2.2% These adverse effects could be prevented in a 16.7% and they were the cause of the admission in 9.5% Anticoagulants were the medicines most common implicated (15.9%), anxiolytic (4.3%), diuretics (3.6%), and ACE inhibitors (2.9%).

Discussion: An adverse drug reactions is defined as any noxious, unintended, or undesired effect of a drug that occurs at doses used in humans for prophylaxis, diagnosis, or therapy. It's the reason of a no-well-known proportion of admissions, which have been described between 1-35%. Multiple factors influence susceptibility to drug reactions and include multiple drug therapy, severity of the disease, age, and type of drug prescribed. Since the current study enrolled patients from internal medicine ward it included a high proportion of geriatric patients. The high proportion of geriatric patients in our study group may account for the relatively high incidence of adverse drug reactions related admissions. Older individuals have more illnesses and consume more drugs. These factors, in combination with the alterations in pharmacokinetics and pharmacodynamics, made this group more vulnerable to adverse drug events. Anticoagulant drugs, diuretics and ACE inhibitors were common responsible for adverse drug events. This finding is in accordance with the high prevalence of older patients with cardiovascular disease. With regard to causality, the high proportion of adverse events classified as probable or possible was not surprising since is often difficult to prove. Firstly, measurements of drug levels were not performed routinely, secondly, a re-challenge test was never performed.

Conclusions: Adverse drug reactions are common at hospital admission. It is necessary to design strategies of security to prevent adverse effects. We might know that is just a small group of medicines who produces the most of these effects; we must be done about it.

V-49
ACCURACY OF THE HOSPITAL ADMISSION MEDICATION HISTORY

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Objectives: To determine the incidence and type of error reconciliation of medications at the beginning of hospitalization.

Material and method: The study involved consecutive patients hospitalized for a month in an Internal Medicine Unit. It's evaluated the collection of the usual treatment of the patient in the emergency department compared with collection in our Internal Medicine Unit. It's verified with medical reports and interviews the patient, family and provider. The verification is checked by a doctor and/or pharmacist. Any discrepancies not justified is considered a failure of conciliation.

Results: 138 patients were evaluated (52% men); mean age 76.6 ± 15.5. We found at least one error reconciliation due to discrepancy not justified in 64.5% of patients; the most common are the omission of a medication (47.8%), incomplete prescription (27.5%) and the difference in dose or pattern (19.6%) Medical reports are the main source of information (29%), followed by patient interview (26.1%) and the family interview (24.6%).

Discussion: The medication conciliation is the process of knowing the previously prescribed medication of the patient compared with the different phases of medical care. This is to ensure that medicines are prescribed in the dosage and the correct pattern. The World Health Organization recognizes it as a priority strategy for patient safety. Most of the conciliation errors are detected at hospital admission. An accurate medication use history is an integral part of the patient assessment on admission to the hospital. An erroneous medication use history may result in failure to detect drug related problems or lead to interrupted or inappropriate drug therapy during hospitalization. Errors medication conciliation at hospital admission are common. Some studies describe discrepancies in 70% of cases, unfortunately, most studies fail to distinguish between unintentional or erroneous medication changes an intentioned adjustments guided by the patient s clinical condition at time of admission. The data presented suggest that the processes for recording medication histories on admission to the hospital are inadequate and in need of improvement. Development of computer systems that allow transfer of medication histories and prescription information between hospitals and community pharmacies has the potential to improve this process.

Conclusions: Unintended medication discrepancies a time of hospital admission are common, and some have the potential to cause harm. Medication Reconciliation is a goal to reduce errors related to medication use and enhance patient safety. Better methods of ensuring an accurate medication history at time of hospital admission are needed to improve patient care and minimize the potential costs of preventable adverse drug events.

V-50
IMPACT OF THE IMPLEMENTATION OF A THERAPEUTIC EQUIVALENCE PROGRAM

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Objectives: Our objective is to assess the impact of the introduction of a TEP in an Internal Medicine Section in a tertiary hospital.

Material and method: Prospective, observational study of hospitalised patients from an Internal Medicine Section for two months after TEP approval. Drug groups included: proton pump inhibitors (PPI), calcium channel blockers (CCB), angiotensin II receptor blockers (ARB), angiotensin-converting enzyme (ACE) inhibitors and HMG-CoA reductase inhibitors. On admission, patient NFD and subsequent drug changes due to TEP were recorded. Economic impact was assessed, analyzing costs reduction.

Results: 117 patients (59.0% men) were included; mean age 74 years; median hospital stay 7 days. 12.8% of patients on NFD included in TEP. Drug groups were: ARB: 60.0% (valsartan: 44.4%, irbesartan: 44.4%, eprosartan: 11.2%), ACE inhibitors: 13.3% (ramipril: 50%, imidapril: 50%), HMG-CoA reductase inhibitors: 13.3% (lovastatin:100%), CCB: 6.7% (nitrendipin:100%), PPI:6.7% (esomeprazole:100%). 33.3% prescribed the equivalent dose recommended by TEP, 26.7% did not prescribe the NFD due to clinical status, 20.0% prescribed the equivalent drug with different dose to TEP and remaining 20.0% of patients brought own medication.

Discussion: A Therapeutic Equivalence Program (TEP) is a help document approved by the Pharmacy and Therapeutic Committee for prescription and dispensing of non-formulary drugs (NFD), considered therapeutic equivalents according to scientific literature. Therapeutic interchange polices and programs grant pharmacists the authority to interchange drugs without prior consent from the prescriber according to procedures outlined in a specific policy. The role of therapeutic interchange has increased substantially in recent years as a result of two primary influences: the rapid expansion in the number of drugs within the same or comparable therapeutic classes, and the need to control drug and related health care costs while promoting more rational drug therapy. The success of the therapeutic interchange program is related to the effectiveness of the pharmacy and therapeutics committee and proper educational methods to inform the professional staff. There are many studies documenting increases in therapeutic interchange policy adherence through the use of computerized physician order entry. Computerized physician order entry allows computerized warnings, dosage guidance tools, and recommendations of preferred drugs within a class.

Conclusions: An important number of patients (12.8%) take NFD, especially ARB (60%). Consequently, TEP contributes to rational use of medicines reducing dispensing time and costs.

V-51
CLINIC URGENCY PATIENTS PROFILE ASSISTED BY AN INTERNAL MEDICINE RESIDENT ON AN URGENCY OFFICE DURING LOW ASSISTANCE PERIOD ON A SPECIALIZED HOSPITAL FROM SAS

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Objectives: The aim is to describe clinic assistance patients profile assisted on an urgency office by internal medicine resident for first year (IMR) two days during low assistance period in our center at Urgency Service.

Material and method: Descriptive study which was included patients assisted on an urgency office by two IMR, two randomized days during low assistance period (last days from April) in our center. Variables studied: basic patient profile, time spent on assistance, complementary tests realized and develop.

Results: Total included 39. Age between 5 months and 89 years old. 61.54% women, 38.46% men. Average time spent on each 2 hours 56 minutes (maximum 7 h 06 min, minimum 12 min). 23 lab tests were made, 15 X-Rays, 9 EKG, one TC and one ultrasonography. Develop: discharge to primary attention 71.79%, discharge for specialist attention 20.5%, hospitalized 5.13%, reaming were discharge without continued assistance. Reaching 97.45% continued assistance.

Discussion: It is not a notice the assistance pressure on Urgency Services. It is true they are variable clinic assistance profile depending of the season, high or low assistance period. In our center during low assistance period, basic patient profile is: most women, wide age range, average time spent less than 3 hours. Main complementary tests were: lab test and X-rays being most discharge for primary assistance.

Conclusions: Global clinic internal medicine professional view makes him able to develop a good job on Urgency Service during low assistance period when are less comorbidities on patients assisted, internal medicine professional is essential.

V-52
CENTENARIANS: REASON FOR ADMISSION TO THE INTERNAL MEDICINE WARD

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Objectives: This review was made in order to know the characteristics and pathologies that led to the admission to the Hospital of our centenarians.

Material and method: A review of the medical histories of the centenarians admitted to the Internal Medicine ward during the last five years was made.

Results: Ten patients were admitted to our ward, the ages varied from 100 to 103 years. Hypertension was the most frequent past medical problem. All of the patients had no neuropsychiatric deficiencies, and only two were dependant for basic activities. The main complaints were dyspnea, fever and chest pain. The most frequent diagnosis was pneumonia followed by cardiac insufficiency. Basic laboratory tests, X-Rays and ECGs were the only tests performed and only one patient needed an abdominal ultrasound. Six patients died: 2 due to a cardiogenic shock, two due to a multilobar pneumonia and one due to an intestinal obstruction.

Discussion: Living more than 100 years is an unusual event. The raise of the standard of living and the improvement of the medical services has allowed more people to live over a 100 years. The number of centenarians in the whole world is estimated to exceed 2,189,000 in 2050. In our health care setting is a large number of patients admitted to surpass the barrier of 70 and a not inconsiderable number of patients aged 95-100 years. This leads to increased health resources and therefore increase the cost. As we have seen in our work, most had a good quality of life with hypertension arterial most common comorbidity and only 20% were dependent for basic activities of daily living; reason for their longevity. Its main pathology was infectious and non-invasive methods used in diagnosis. Despite this, mortality was 60%.

Conclusions: We highlight the absence of relevant past medical history, the relatively good quality of life before admission to the Hospital and the decision to avoid aggressive therapeutic and

diagnostic measures giving priority to the patients' comfort and to the agreement of their families in the decisions taken.

V-53
EVALUATION OF THE ADMINISTRATION OF ANTI-PLATELET MEDICATION IN DIABETIC PATIENTS

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Objectives: To be evaluated the percentage of diabetic patients of a provincial hospital who receives anti-platelet treatment, taking into mind that the main reason of morbidity and mortality to these patients is connected with the vascular complications (either microvascular or macrovascular) and, therefore, this medication has the target of both primary and secondary prevention of these complications. Moreover, it is necessary to be estimated the usefulness of generalization of the implementation of this medication.

Material and method: Overall, 347 diabetic patients (136 men and 211 women) have been researched in the regions of Central and West Macedonia, with average of age 63 ± 11.9 years and average duration of the diabetic disease 9.2 ± 4.3 years.

Results: The number of the patients who received the anti-platelet medicament was 61 patients (17.58%), 34 men (25%) and 27 women (12.8%). 48 of these patients (78.7%) had already established coronary heart disease and, for this reason, they were already treated with this medication.

Discussion: As someone can understand, the concerning low percentage anti-platelet medication in diabetic patients in these provincial regions of Greece demonstrates the lack of prevention or the delayed prevention in this particular sector.

Conclusions: It is necessary the better education of the doctors recruited in the primary prevention care who come in close contact with the patients of frontier regions in order to be obtained the better knowledge, by these patients, of the usefulness of preventive administration of anti-platelet medicaments.

V-54
RESEARCH OF ERYTHROCYTE INDEXES, HISTOGRAMMAS AND RDW IN CIRRHOTIC PATIENTS

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Objectives: To be investigated the data of automatic analyzer of Full Blood Count in cases of cirrhotic patients and to be evaluated the prognostic value of the elements of the Full Blood Count, for example, the erythrocyte indexes, the Histogramma and the parameters of variability of the erythrocytes in the evolution and severity of the liver disease.

Material and method: Totally, 26 cases of cirrhotic patients have been investigated (18 men and 8 women), most of them, (21 out of 26), with alcoholic cause, who have been hospitalized in the Clinic of Internal Medicine of the Psychiatric Hospital of Thessaloniki, Greece. They have been treated for alcohol abuse, without any hematologic disease or active bleeding, and they have been classified into staging of Child-Pugh. The results of full blood count have been researched to all of them.

Results: The average values of the elements of Full Blood Count, in accordance with the stage of the liver disease, have been mentioned in the following panel of the table.

Discussion: It is proved that the prognostic value of RDW and histogramma is very important for the evolution of cirrhotic disease, in comparison with the, more often used, erythrocyte indexes (MCV, MCH and MCHC). Although the existence of morphologic abnormalities of the erythrocytes (acanthocytes and spur-cells) advocates for advanced cirrhosis and, even more, for cirrhosis with bad prognosis, on the other side, it is required microscopic analysis of the blood sample by the specialist.

Conclusions: Also, the existence of acanthocytes causes the modification of RDW and it is easy detectable from the simple exam of the full blood count which can be committed by a non-specialist medical doctor. It is obvious, finally, that the morphologic variability of the erythrocytes (as it is expressed by the results of FBC on the automatic analyzer) is a very useful tool in order to be evaluated the progression of the cirrhosis even by a non-hematologist. Consequently, it is necessary to be taken into mind.

V-55
CORRELATION BETWEEN PLATELET PARAMETERS, B12 AND FOLIC ACID IN PATIENTS WITH CORONARY HEART DISEASE IN THE REGION OF CENTRAL AND WESTERN MACEDONIA, GREECE

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Objectives: To be evaluated, comparatively, among patients with established coronary heart disease and the healthy population, the parameters of full blood count, B12 and folic acid.

Material and method: There were researched 144 patients (102 males and 42 females, average age 63.4 ± 7.5 years) with established coronary heart disease (previous infarctus myocardii and unstable angina pectoris), also 140 healthy individuals (102 males and 38 females, average age 64.2 ± 7.8 years), who were the control group. At all of them was counted the complete number of eosinophiles, the number of platelets (PLT), and their MPV, by the help of haematological analyzer, while, where it was intentional, it was examined both a blood tile. Moreover, there were counted in biochemical analyzer values of B12 and folic acid.

Results: Although, both the complete number of platelets and the values of B12 and folic acid, were not differed statistical significantly, between the two groups, MPV at 126 out of 144 patients with established coronary heart disease (87.5%) was > 11 fl, while at 106 (73.6%) it was appeared rate of eosinophiles < 1%.

Table (V-54)

Patients	Ht%	Hb (g/dl)	MCV (fL)	MCH (og)	MCHC (g/dl)	RDW%
Child-Pugh A (N = 8)	29.1	9.4	84	27.2	32.1	17.1
Child-Pugh B (N = 13)	32.4	10.8	98.7	31.2	33.4	18.3
Child-Pugh C (N = 5)	30.2	9.8	100.2	31.9	32.6	19.6

Discussion: It is proved that in patients with established CHD there is statistically significant increase of MPV together with decrease of the rate of eosinophiles.

V-56
INVESTIGATING THE CAUSES OF BEING EXCLUDED FROM VOLUNTARY BLOOD DONATION

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Objectives: Identify and study the causes of removal from the voluntary donations of which might in this region's population our responsibility, to allow for better planning in terms of attracting them to the relevant department of our hospital, especially in our time, as the needs for blood and its derivatives, are increasing (due to the development of medical science and the increase of diseases that require blood transfusions on the one hand, and accidents on the other).

Material and method: For this purpose, specially designed anonymous questionnaire are distributed to relatives of patients who were hospitalized and transfused in our hospital, when they first appeared in Our Blood Service, to learn about the need to find an equal number of donors in order to "cover" the blood units committed or used for relative. It also concerned donor candidates first or at most second time, people say that abstained from volunteering, and came to our service only when an emergency occurred in the immediate relative or a friendly environment. In this way, we collected and studied a total of 112 responses similar questionnaires, responses that were both general questions (gender, age, educational level, etc.), and in specific, relevant to all aspects of donations (information, process, previous experience, knowledge, fears, etc.). All data were analyzed statistically worked out using the program excel.

Results: Of the total of 112 candidate donors, only 23 had previously given blood (at least once) in the past, while the remaining 89 donors were candidates for the first time. These were people on adequate social and educational level (83% had received the mandatory or even the middle or higher education), while as regards gender consisted of 67 men and 45 women. Major causes involuntary blood donation in the past proved, first, the fear of potential pain or other health problems (fatigue, stress on the body, etc.) at a rate of 61%, and no fear as regards the safety of the process, a percentage 43%. Followed: a) the admission of negligence by a rate of 35% (with a significant 21% reported difficulty in relation to the time of blood sampling), b) the previous bad treatment by the staff of blood banks (16%) or even traumatic experiences in the past (11%), and finally, c) what was impressive was that a significant 38% (more about that from 1 to 3, and even an increased percentage of young people) felt that never been informed sufficiently, nor the need for blood, nor of the whole transfusion process, much less for the security measures taken. It is finally noteworthy that the above issues there were no statistically significant differences, either in relation to age, but even in relation to the educational level of respondents.

Discussion: The overall survey has proved very interesting, and considers it appropriate, (and possibly very important), to be extended even further, including an even larger field of research (ie the relevant questions), but certainly larger sample of the general population. However, although limited, shows clearly that even people with good education, in the Greek countryside, there are still unjustified fears and prejudices about important issues of the donation.

V-58
PSYCHIATRIST'S CONSULTATION TO INTERNAL MEDICINE

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Objectives: Analyze consultation to Internal Medicine coming from Santiago Apóstol's Hospital Psychiatry Service (SAHPS).

Material and method: Between January 2011 and April 2012 we analyzed all consults received from SAHPS. The Service doesn't admit patients with acute medical pathology, poison or drug intoxication, withdrawal or injury by suicidal attempt. For confidentiality reasons we didn't take data from the psychiatric history and the exposure to neuroleptics or antidepressant drugs wasn't listed in nominal form. We took into account five characteristics: 1) Possibility to obtain a medical history based on the consultant´s opinion 2) Group's comorbidity according to Charlson's index (CI) 3) Drugs´ interactions and adverse effects 4) Consult´s reason 5) Complexity degree. We assigned low complexity (LC) to mild acute pathology, CI < 3 or analytic data without clinical implication. We considered high complexity (HC) with multimorbidity (CI > 3), need of admission at ICU or coexistence of comorbidity and electroconvulsive therapy (ECT). In all other conditions we assign medium complexity.

Results: We registered 62 consultations of SAHPS. There were 32 female and 30 male, with an average age of 48.3. Only ten patients were older than 70. Globally, the comorbidity rate was low, with an average group value of 0.85 at CI. In 31 patients there wasn't any medical history (50%). In another 18 (29%) the CI was 1. Seven patients raised an CI of 2 and the other six were affected by values of CI 3 or 4. The CI > 2 was more common in people older than 70 years (p: 0.0004). Common coexisting diseases were: arterial hypertension (13), active alcoholism (6), diabetes mellitus (4), dementia (3) and cardiovascular diseases (4). The internist considered to make a medical history to 74% of the patients, but only a third part of those older than 70 years (p: 0.0005). Common consultation reasons were alterations on analysis (15) and comorbidity control (14). Ten feverish patients showed cystitis, pneumonia and, in eight cases, banal pathology. Three patients showed drug induced secondary effects, although all the patients (60) were exposed to neuroleptics: two cases of edema related to olanzapine and only one case of Parkinsonism. None of the conditions were related with antidepressant drugs. Three patients had relevant interactions related respectively to rifampicin, clarithromycin and many drugs at a time in a case of prurigo. According definition, 47 patients showed LC cases and other 7 showed medium complexity. We estimated 7 patients with HC, which needed admission in ICU because of acute renal failure (2), large comorbidity (3) or ECT. In this group there weren't differences related to genre (p: 0.61), but it was more frequent in the oldest (p: 0.0009). Finally, we conducted intensive study in two patients suspecting undiagnosed medical pathology.

Discussion: Despite our predictions, there was a low global comorbidity index, reasonably higher in the oldest patients. We found a few drug induced side effects, perhaps due to effective intervention from the psychiatrist. Generally, we assist LC pathology, predominating known processes and anomalies in routine analysis. We frequently obtained a good medical history which as a consequence resulted in a non-complex differential diagnosis. Active alcoholism was rare, maybe biased by exceptions to admission. This group received drugs to avoid Wernicke's encephalopathy and alcohol withdrawal, cases we didn't observe. Two patients were admitted at ICU for severe dehydration and renal failure. We performed intensive study in two patients, because of a bad response to psychiatric therapy and unexplained deep vein thrombosis. Searching for medical pathology didn´t

make results.

Conclusions: We concluded that a good clinical history was obtained in a high proportion of patients in a group with low CI and LC. Searching for medical pathology didn't make results. Several effects of drugs were uncommon. In our opinion, our main intervention consisted in controling known medical pathology, making clear values to limit unnecessary studies, and pointing out the side effects and relevant interactions of medication.

V-59
MORTALITY OF CONSECUTIVE PATIENTS WITH DIABETIC KETOACIDOSIS IN THE EMERGENCY DEPARTMENT OF A TEACHING HOSPITAL

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Objectives: Background. Prevalence of diabetes mellitus (DM) would reach to 9% of population in developed countries in year 2030. Diabetic ketoacidosis (DKA) is an acute metabolic event that could be potentially life threading. Modern guidelines (American Diabetes Association - ADA) reports a mortality < 5%, but it is references to 70s-90s manuscripts of the last century. Although data are consistent with a decline in mortality due to DKA, nowadays, few are available related to this outcome. Objective: to define the mortality of DKA in a teaching hospital in modern era.

Material and method: We designed a retrospective reviewed of electronic clinical files of consecutives patients ≥ 18 years, who came to emergency department (ED) from Jan/2008 to Jun/2011. They must fulfil diagnostic criteria of DAK according to ADA. Hyperosmolar hyperglicemic state (HHS) was excluded. Severity of the episodes (mild, moderate, severe) was classified according to ADA criteria 2010.

Results: Finally, 136 of 152 patients were included in analysis, with median age 40.46 yrs (SD 18.77); female:male ratio 1.38. Mortality rate reached 1.49% (acute coronary syndrome (n = 1), bronchoaspirative pneumonia (n = 1).28-days readmission rate was 10.4% (without deaths). The median age of DM onset was 26.37 yrs. The total number of insulin units per day was 39.1 (UI of any kind). The episode of DKA supposed a diabetic debut in 16.2%. The 59.2% had known type 1 DM and 21.5% had type 2 DM. The median of the mean laboratories values were: pH 7.103, HCO3- 9.55, glucose 609.1, Na+ 131.61 (corrected, 141.78), plasma osmolality 291.54, K+ 4.72,GAP anion 24.96, ketonemia 5.17 and 93.3% had ketonuria > 80 mg/dl. The severities of DKA were mild in 11.8%, moderate in 32.4% and severe in 50% of cases; 6.9% had mixed features (hyperosmolar state, alcoholism). Alimentary or insulin dose transgression (28.3%) and infections (29.1%) were the leading causes of DKA. More than half of patients (52.2%) were admitted to intensive care (average 1.7 days), and 86% to endocrinology ward (average 9.82 days). The average of ED stay was 10.14 hours.

Discussion: We found that DKA's mortality of patients admitted to experience teaching center still remains below 5%, although most of them have severe episodes. The rate of 28-days readmission is low, not leading to new events (deaths). It was not possible to analyze factors related to mortality, because the low numbers of events. The two deaths happened in older patients, low consciousness (coma), hyperosmolar states and severe trigger (acute infarct –type 2 DM-, bronchopneumonia – diabetes onset). Better adherent to protocols and improving in outpatient management and educational programs could explain this low rate of mortality.

Conclusions: DKA has a low rate of mortality (1.49%) in teaching hospital. Older patients, who have acute and severe causes of DKA, seem to be a higher risk of death.

V-60
5-YEARS EXPERIENCE OF OUTCOME AND CLINICAL FEATURES OF CONSECUTIVE BODY PACKERS, BODY SUFFERS AND BODY PUSHERS (DRUG MULES) ADMITTED TO REFERENCE EMERGENCY DEPARTMENT

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Objectives: packers (drug mules) are persons who smuggled illegal drugs by hand-made of industrial capsules, which are introduced inside its bodies (mostly gastrointestinal). Our center is one of the references' hospital of Barajas Airport, where more than 32 million of international passenger transit in 2011. Mortality and complication of these patients is variable, and depends of different conditions (poisoning, severe cardiovascular events, acute abdomen). Objective: to describe clinical characteristic of large series of body-packers to date.

Material and method: We designed a retrospective clinical file review of consecutive patients (body packers) from Jul/2007 to Mar/2012, who were admitted to the special observational ward of the emergency department of the reference teaching University Hospital Ramón y Cajal. Absolute diet was indicated to all cases, till December 2011, when protocol was reviewed in order to select some cases that could tolerate liquids.

Results: We finally included in our analysis 863 patients, with a mean age of 32.61 years (SD 9.45) and male:female ratio of 5 to 1. Most of patients denied any previous illegal drug consumption (67.8%) and have not got any disease (78.9%). More than a quarter came from different countries of South America. At first attention, 0.8% has poisoning symptoms (cocaine or cannabis), and 10.4% told abdominal pain. The median transported bodies reached 60.97. The medians of capsules expulsed in and out hospital were 57.72 and 6.48, respectively. The median of days transporting drug before attention was 1.38. Almost 90% were body packers (oral ingestion), 2.9% were body pushers (rectal/vaginal). Cocaine was the most frequent illegal drug smuggled (83.2%), being in smooth capsules in 16.3% of cases. 2.1% (n = 18) had serious complications (obstruction and/or surgical procedure). 1.5% (n = 13) required any emergency surgery. We recorded none deaths in the whole series. Before discharge, it was recorded a median of clear deposition of 11.73. The average of days of hospital staying was 4.14 (SD 4.72). The most frequent complications during hospitalization were non-surgical abdominal pain (4.6%), infections (phlebitis, soft part, bacteraemia) 5.1%, and abstinence syndrome (1.6%).

Discussion: Most of body packers/stuffers (98.5%) could be successfully managed with conservative measures. These low rates of events made difficult to set a statistically relationship with any given variables. Our protocol is, in general, so restricted with oral tolerance. Thus, mostly all cases are on non-oral tolerance. Recently, we have reviewed our protocol, and in some cases, a liquid diet could be well tolerance, without any increasing in surgical complications.

Conclusions: Illegal drug transporting is increasing nowadays. Most of body packers/stuffers could be successfully managed with conservative measures (absolute or liquid diet).

V-61
SHORT STAY UNIT AT INTERNAL MEDICINE: AN ALTERNATIVE IN RESPIRATORY PATHOLOGY ATTENTION

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Objectives: This study aims at analyzing the attention given to patients with respiratory pathology in our Short Stay Unit at Internal Medicine.

Material and method: We carry out a descriptive and retrospective study on patients with respiratory pathology who were admitted in our Short-Stay Unit (SSU) at Internal Medicine at the San Cecilio University Hospital in Granada for a five-month period, from the 1st of July till the 30th of November, 2011. The SPSS v.15, with license from the University of Granada, was used for data analysis.

Results: 196 patients were treated. The average age was 66 years old, among which 56.3% were female patients and 43.7% males. The average stay duration in the hospital was 3.41 days, between 1 and 7 days. Among the 196 patients, 51 (32.27%) were treated for having respiratory pathology: 14 (27.45%) for COPD exacerbates, 16 (31.37%) for pneumonia, 12 (23.53%) non condensing respiratory tract infections, 5 (9.8%) for asthma exacerbates and 4 (7.84%) for other respiratory problems.

Discussion: Respiratory pathology is a reason for frequent admission in Internal Medicine which turns into a significant economic cost mainly owing to the duration of the stay in the hospital. Short-stay units emerge with the intention of making better the prevailing processes which specify hospitalization for attention, as is the case of the respiratory diseases. Also, they are considered a good support for the Medical Units of conventional hospitalization, offering patients, through their operating structure, less days of stay in the hospital.

Conclusions: SSU is a high-resolution and safe unit for the treatment of the most prevailing respiratory diseases allowing decreasing the average stay of our patients through their operating characteristics. It is true that our study offers the common limitations of a descriptive-retrospective analysis, with no control group, yet we consider it interesting as a starting point for future studies which assess the real impact of the SSU.

V-62
APELIN LEVELS IN PATIENTS WITH NEWLY DIAGNOSED HYPERTENSION AFTER TREATMENT OF VALSARTAN AND AMLODIPIN

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Objectives: Apelin is a new member of adipose tissue-derived peptides that is produced in various parts of the body, including the endothelial cells. Apelin regulate blood pressure. Low apelin have been reported in hypertension. We aimed to investigate the effects of valsartan as an angiotensin II receptor antagonist, and amlodipine as a calcium channel blocker on the apelin level in patients with essential hypertension.

Material and method: Patients with a newly diagnosed essential hypertension were admitted to our internal medicine outpatient clinic. Exclusion criteria were hypertension, atherosclerotic heart disease, diabetes, chronic kidney disease, thyroid dysfunction, chronic liver disease and other chronic diseases. Patients were randomized to one of the following intervention protocols: angiotensine II receptor blocker (valsartan, 80-320 mg/day) as a group A or calcium channel blocker (amlodipine, 5-10 mg/day) as a group B. Serum apelin levels of the patient groups were measured before treatment and on the 12nd week.

Results: Study group consisted of 50 patients with newly diagnosed essential hypertension (group A n = 28 and group B n = 22). No statistically significant differences were determined among the groups in terms of age, sex and body mass index (group A/B; mean age: 52.9/50.1, female: 22/13, male: 6/9, BMI: 30.3/30.4; $p > 0.05$). In the amlodipine group, there was a significant increase in level of apelin after treatment ($p < 0.05$) in comparison with valsartan.

Discussion: Apelin plays a major role in the regulation of endothelial proliferation and the arterial blood pressure regulation. The coexistence of hypertension and low apelin levels have an additive effect on the development of coronary artery disease and the associated mortality rate.

Conclusions: We found that amlodipine has increased the level of adiponectin more than valsartan. As a result, in the treatment of hypertension, prior knowledge of the level of plasma apelin could be important in antihypertensive drug choice.

V-63
UPPER EXTREMITY VENOUS THROMBOSIS: REPORT OF 15 CASES IN THE AREA OF LEON

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Objectives: To analyze the clinical characteristics and risk factors for venous thrombosis (DTV) episodes in the upper limbs in the area of León.

Material and method: We reviewed clinical reports of patients diagnosed with upper extremity venous thrombosis during the period of 2008-2011. Associated or not with central venous catheter, and excluding those associated with peripheral catheter. We analyzed epidemiological, clinical data, methods of diagnosis, risk factors and treatment.

Results: We found a total of 15 patients: 53% women and 47% men. Mean age 58.9 years (range 14-93). Four patients had central venous catheter at the site of the thrombosis. The location was distributed as follows: 2 axilosubclavia, 2 basilica, 1 axillary, 2 cafalicas, 2 jugular subclavia, 2 jugular axilosubclavia, 2 jugular, subclavian and 1 unspecified location. Located as follows: 7 lefthandthrombosis and 8 were on the right. The diagnosis was made in 86.6% of patients by Eco- Doppler. In two cases by Computed tomography angiography. Two of these patients had one kind of thrombophilia: a case of antiphospholipid syndrome and another case of V Leiden mutation. Four patients had had a previous episode of DVT. With respect to their association with tumors: 7 patients had association with malignancies, 1 lung cancer, 1 cervical neoplasm, 2 colon tumor, 1 meningioma and finally 1 patient with a hematologic neoplasm. Four of these patients had localized disease, and three advanced disease. For treatment, 60% received low molecular weight heparins, 13.3% of patients underwent fibrinolysis, 3 patients were treated with acenocoumarol and only one case was treated with aspirin. The duration of treatment was highly variable (one patient 6 months, and the other a shorter duration) and in six cases it was not specified in their medical history. Only one patient had previously received acenocumarol, four had received low molecular weight heparins. No patient had received contraception. Regarding risk factors: seven had a history of malignancy, one anatomical conflict, two thrombophilia, one was an athlete, three cases had

a history of resting or post-operatory treatment, and in the last one, the patient had an atrial fibrillation.

Discussion: Approximately 10% of all cases of venous thrombosis occur in the upper extremities, resulting in an annual incidence of 0.4-1 cases/100.000. It occurs most frequently in the subclavian and axillary veins, and secondary forms are more common than primary. The cases have become increasingly common due to increased use of central venous catheters. In addition to intravascular devices, risk factors such as vigorous exercise, cancer or thrombophilia have been described. Compared to patients with thrombosis in lower extremities, patients with thrombosis in upper extremities are usually younger and thinner, and more are diagnosed with cancer than thrombophilia. In different reviews (studies), the Doppler ultrasound demonstrated sensitivity in nearly 97% and specificity in 96%, the screening test was the most recommendable although in this review venography (phlebography) was considered to be the gold standard. Regarding treatment, it is preferable to use low molecular weight heparin, and fractional heparin in patients with renal insufficiency. Thrombolysis and intervention (balloon angioplasty, thrombectomy...) are reserved for severe cases and with low risk of bleeding.

Conclusions: 1. The location most frequently described in our case studies was the subclavian vein. 2. Half of the patients had active malignancy at the time of diagnosis.3. In 86% of cases, the diagnosis was made by Doppler-ultrasound and in 60% low molecular weight heparin was the treatment chosen.

V-65
HEMORRHAGE OF THE UPPER DIGESTIVE SYSTEM: STUDY OF TRANSFUSION NEEDS AND CORRELATION WITH THE BLOOD GROUP DURING THE LAST DECADE IN GENERAL HOSPITALS OF WEST MACEDONIA KASTORIAS AND FILIATES

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Objectives: Identify cases of hemorrhage of upper digestive tract, to study the administered blood units, and to consider possible positive correlation between blood type, bleeding from the upper digestive and the need for transfusion.

Material and method: A total of 167 cases where found and studied of patients who were hospitalized at the General Hospital of Kastoria during the past few years, with upper gastrointestinal bleeding.

Results: Of the total 167 patients, 115 are ultimately transfused, 68.9%. Of these, 25 (21.74% share) got only one unit of blood, 37 (rate 32.17%) two units, 21 (rate 18.26%) three units, while in 32 cases of patients (percentage 27.82%) required transfusion of more than 3 units of blood. With particular regard to blood group, data of patients who bled and transfused are shown in Table number A, as you can see below.

Discussion: It turns out therefore that: 1) Bleeding in the digestive system are common causes for blood transfusion, as in the case of our hospital in 69% of patients had blood transfusion, and even the 28% required a large amount of blood (more than 3 units of blood). 2) A greater proportion of patients with bleeding of upper digestive tract (40.11%) belongs to blood group A Rhesus (+), and 3) There is a positive correlation between blood group and the taking of blood in cases of upper gastrointestinal bleeding with a clear superiority of group AB Rhesus (+), (rate 80%).

Conclusions: Finally, It should be noted that the number of patients who ultimately received only one unit of blood (25, rate 21.74%) was quite large, which of course raises questions about the need for all these cases of transfusion.

V-66
INCIDENT REPORTING AT INTERNAL MEDICINE

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Objectives: This study aimed to examine the incident reported in a tertiary centre in a general internal medicine unit. Such information would help in redesigning systems and in planning and developing strategies with the goal of improving patient safety and quality care.

Material and method: In this descriptive study, we evaluated all incident reports submitted through the reporting system in the.

hospital for the 2007-2011. Gregorio Marañón University Hospital in April 2006 created the Functional Unit of Health Risk Management (UFGR). In that year it started an adverse event reporting system, with the following features: not punitive voluntary and confidential. The system was based on the training of the staff to develop the habit of notifying all incidents to be reported, with the aim of taking preventive measures in collaboration with the UFGR. The hospital intranet allows professionals the access to the electronic reporting system.

Results: A total of 167 incident reports were submitted from all hospital areas. 113 (68%) of incident reports were submitted from internal medicine. 23% are related to infrastructure, 18% with bad coordination between services and 17% with the clinical documentation. 42% occurs in the monitoring and care, 16% in medical treatment and 12% in admission. For causes, 22% are due to equipment and a 18% to the professionals. It resulted in minor incidents a 76% of the cases or death in 24%. Reports led to recommendations by the UFGDR. Proposed corrective and preventive measures in 83% of the cases were to improve communication between services and 19% by improving infrastructure and maintenance.

Discussion: Reducing mishaps from medical management is crucial to improve quality and lower costs in health care. Outcomes in complex work depend on the integration of individual, team, technical, and organisational factors. Incident reports were low compared with reported international rates. There are powerful disincentives to reporting. Management attitudes and institutional climate can greatly influence the success or failure of reporting efforts. The reporting system can complement other tools in promoting a clinical safety culture.

Conclusions: Most of the notifications were incidents. The reporting system can complement other tools in promoting a clinical safety culture.

Table (V-65)

Blood group	0 (+)	A (+)	B (+)	AB (+)	0 (-)	A (-)	B (-)	AB (-)	Total
Bled	67	51	17	10	8	9	5	0	167
Transfused	49	33	10	8	5	7	3	0	115

V-68
ADVERSE EVENTS IN AN INTERNAL MEDICINE UNIT: A PROSPECTIVE STUDY

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Objectives: Since most studies carried out so far on adverse events (AE) are retrospective and focus on describing these events, this study aims to assess the incidence of AEs in an Internal Medicine unit, describe the profile of patients with AEs and evaluate their consequences and preventability.

Material and method: We performed a single-cohort prospective observational study using a mixed source of data, a primary (prospective) source and a secondary source (clinical record).

Results: 667 patients were analysed with an average age of 69, generating 714 admissions. The unit of analysis was hospitalization. In total, the 714 admissions generated 140 AEs linked to healthcare. 104 admissions presented AEs, with an incidence of 14.6% (104/714); 95% confidence interval [CI]: 12.06%-17.37%. The most frequent AEs were the ones related to medication (38%), followed by nosocomial infection (21%) and those related to a procedure (21%). Independent factors for AE development were: age over 65 (relative risk [RR] = 1.91, 95%CI: 1.10-3.37), coronary heart disease (RR = 2.13, 95%CI: 1.25-3.65), urinary catheter (RR = 2.29, 95%CI: 1.40-3.76) and central venous catheter (RR = 4.58, 95%CI: 11.54-13.7). The preventability rate was 37.5%.

Discussion: The incidence of AEs detected in our Internal Medicine Unit is higher than that found in other studies, although within the established limits. There are few studies with similar characteristics (prospective studies with a daily observation of a cohort of patients). Comorbidity and the error in the use of clinical guidelines and are the most relevant causative/contributory factors.

V-69
RENAL DISEASE IN SYSTEMIC AMYLOIDOSIS

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Objectives: Renal disease due to amyloidosis is a rare problem with several possible causes. We evaluated the relative frequency of these causes in a group of patients studied at a Nephrology Service.

Material and method: From 1999 seventeen patients have been diagnosed of amyloidosis by renal biopsy. Mean age was 57.4 ± 14.7 years, 57% were males. All samples were studied by optical microscopy using Congo Red and Tioflavin T stains. Clinical and analytical manifestations have been retrospectively recorded.

Results: Eleven patients had secondary (AA type) amyloidosis, of them 54.5% were previously diagnosed of any rheumatoid disease (rheumatoid arthritis and ankylosing espondilitis were the most frequent, 66.6% of total), 9%% of a chronic infective one and 9% of inflammatory intestinal disease one. Six patients had primary (AL type) amyloidosis with monoclonal lambda chains by serum immunofixation electrophoresis (bone marrow was performed in four patients, three of them showed monoclonal lambda light chains expression). All patients showed macroalbuminuria (mean proteinuria 7.5 g/24h) and 13 subjects had complete nephrotic syndrome with hypercholesterolemia and hypoalbuminemia; 59% showed reduced glomerular filtration rate at beginning. Symptoms and signs were the most common were: arthralgias 47%; gastrointestinal disorders 17.6%; hypotension 17.6% and 12% wasting syndrome. Normocytic and normochromic anemia was also common (71%), 23.5% of our patients had left ventricular hypertrophy on echocardiography but hepato-esplenomegalia was absent. Nine patients (53%) goes to hemodialysis, one patient received a kidney transplant, who presented recurrence of amyloid disease and 17% was died. 50% of patients with AL were treated with bortezomib and corticossteroids and 32% with chlorambucil and corticosteroids.

Discussion: In our series the most frequent cause of AA were rheumatologic diseases and it was more common in females, according with others reported series. Secondary forms of amlyloidosis were more frequent than primary ones (65% AA vs 35% AL). The gradual aging of the population and the increasing incidence of rheumatologic diseases, mostly associated with female gender, might explain these data. Dough in the early reported series AA there was a ethiological predominance for chronic infectious disease, in the most recent ones this dominance is for rheumatologic diseases, especially rheumatoid arthritis (AR). This is likely due to the better treatment of infectious diseases and the increased life expectancy of chronic inflammatory disease patients. The average age was 57.4-14.7 years, which is higher than those reported in the literature. Analysis of the data, we conclude that renal involvement is characterized by nephrotic syndrome, proteinuria and renal failure which is consistent with the cumulate evidence. The kidney biopsy shows a high diagnostic performance, which is usually greater than 95% (100% in our analysis). The subcutaneous fat biopsy is also useful in the diagnosis of amyloidosis but in our study was performed only in one patient. The most of our patients had a poor outcome: more than half of patients needed renal replacement therapy, very similar to other published series.

Conclusions: Renal amyloidosis is an uncommon disease which should be suspected in all patients with heavy proteinuria and renal failure. Kidney biopsy is needed to know the specific kind of amyloidosis as well as the systemic origin of disease.

V-70
ACUTE INTERMITTENT PORPHYRIA: REPORT OF SIX CASES

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Objectives: Acute intermittent porphyria (AIP) is an autosomal dominant inborn error characterized by decreased activity of porphobilinogen deaminase (PBGD), leading to increased levels of haem precursors, namely amino levulinic acid (ALA) and porphobilinogen (PBG). It is the commonest and most severe form acute porphyria. Abdominal pain, neurological dysfunction and psychiatric disturbances form the classic triad of AIP. Here, we report 6 cases of AIP.

Material and method: This is a descriptive, observational, retrospective and transversal study in which 6 clinical histories with the AIP diagnosis from the Internal Medicine/Digestive Service from the Clinic Hospital from Zaragoza were analyzed. There were several tables for the collection of clinical, analytical, therapeutics data and the genetic study.

Results: The mean age was 36.8 years, 83.3% were aged between 30 and 40 years. 4 were women and 2 men. In 2 patients the family study of porphyria was completed, confirming the presence of 4 asymptomatic carriers. The precipitants factors were: alcohol intake (2 cases), respiratory infection (2 cases), fasting (1 case) and menstruation (1 case). The 100% of the patients presented as major symptom abdominal pain. It is worth noting the presence of

hyponatremia in most cases and the finding of syndrome of inappropriate antidiuretic diuretic hormone secretion (SIADH). All patients were treated with glucose, but only 2 needed hemine treatment. Genetic study was realized in 2 patients and the mutations found were: R26C at exon 3 y R225X at exon 12 of PBGD gene. It was recorded the emission of high coloured urine in 2 cases. Currently all patients are alive.

Discussion: These cases show similar characteristics to those described in the literature on the AIP. It's a genetic disease with a 10% penetrance and low prevalence. It results from a PBGD enzyme hipoactivity, causing an increase of the PBG and ALA, excreted by urine. There are more women and it generally appears after puberty. It can be asymptomatic or intermittent with attacks precipitated by: stress, infections, low calories diet, hormonal changes, drugs and medicines. It courses with abdominal pain (in our series 100%), neurologic manifestations (central nervous system, autonomic and peripheral) and/or psychiatrics. Some of the neurologic symptoms, the same as the dysautonomic, were found in the reported cases. The presence of hyponatremia is very common in the study, with the presence of SIADH, which is also described in AIP, but with less frequency. The demonstration of the excess of ALA and PBG in the urine is enough for the diagnosis and the treatment consists on general maintenance, carbohydrates and intravenous hemine in the severe cases.

Conclusions: AIP should be considered in patients with abdominal pain or neurological manifestations without known etiology. In spite of the characteristic reddish coloration urine, this is not always detected. -Perhaps the diagnosis delay doesn't allow early treatment with hemine in certain patients.

V-71
THE INTERNAL MEDICINE DEPARTMENT AS A HOSPITAL CONSULTANT

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Objectives: To describe the characteristics of interconsultations from medical and surgical services to Internal Medicine Department in Albacete's General Hospital during 2011.

Material and method: In this prospective study, individual data of all consecutive patients admitted to non-Internal Medicine departments in whom consultation was requested were registered from January to December 2011. Analyzed variables were: age, sex, reference department, consultation clinical problem, medical and admission diagnoses done during the admission, number of visits and reason for discharge.

Results: During the study period, a total 0f 507 consultations were included, the majority at the request of Surgical Departments (21% of General Surgery, 16.8% of Vascular Surgery, 14.2% Traumatology followed by 8% Urology). Patients mean age was 71.5 ± 15.60 years and male were 57.8%. The most common reasons for internal medicine consultation were: co-morbidity problems management (13.8), dyspnea (13%), fever (8.3%), poorly controlled arterial hypertension (6.7%) and laboratory abnormalities (6.5%). In 42% of all consultations a cardiac diagnosis was found, including arterial hypertension (12.6%), dysrhythmias (9.5%) and cardiac failure (9.7%). In 23.9% the diagnosis was an infectious disease and 20.7% was hematologic process. The mean patients follow up 13.98 ± 10.2 days. Hospital mortality was 5.1%. (26 p) and 247 patients (48.7%) were discharged from hospital. 32 patients (6.3%) were transferred to Internal Medicine hospitalization and 56 patients (11%) were followed as outpatients after discharge.

Discussion: The role of the Internal Medicine department as a hospital consultant are not well known. The fact that consultations are often performed in between the daily work schedules, the impact on the surgical and other medical patients as well as the daily workload can be underestimated. In this study, we examine the characteristics of that consultations, the patients clinical profile and their impact on the daily workload.

Conclusions: Patients who are admitted to a non-internal Medicine department and who need consultation are particularly elderly people with a high prevalence of co-morbidity diseases and high in-hospital mortality. For these reasons internal medicine consultation is an important part of the daily workload deserving a structured approach. In our hospital, from 2010 there is a team dedicated full time as consultants.

V-73
CARDIOVASCULAR ADVERSE EVENTS: 10 YEARS OF MONITORING IN A REGIONAL HOSPITAL

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Objectives: Pharmacovigilance (medical surveillance) is defined as a public health activity aimed at the identification, quantifying, evaluation and prevention of risks associated with using drugs once they are marketed. A serious adverse drug reaction (SADR): an adverse reaction that results in death, may endanger life, might require inpatient hospitalisation or prolongation of existing, might result in disability, significant or persistent incapacity, or is a congenital anomaly or defect of birth. ADRs represent 4.7% of hospital admissions and during hospitalisation 10.9% of patients experience some type of ADR. Our objective is to describe the cardiovascular adverse reactions detected by the pharmacovigilance program (medical surveillance program) at a local hospital over the past 10 years.

Material and method: A descriptive retrospective survey of all ADRs with cardiovascular events collected by the Surveillance program at our hospital over the past 10 years.

Results: During the period 2002-2011, 100 cardiovascular ADRs were reported. Of these, 92% were severe, an 8% were not. 88% required hospital admission; 4% extended hospitalisation; 8% exitus. Average age: 69.9 years old (3-91). Gender: 44.57% men, 55.42%women. Duration of adverse event: 3% not known. 97% is known: 5.46 days average (42.26% of them < 48 hours, 39.17% 2-7 days, > 7 days 18.55%). Clinical signs - drugs involved: 63% arrhythmia (93.65% bradycardia/AV block: 64.4% due to beta-blockers and/or calcium antagonists, 30.5% due to digoxin), 13% syncope (46.15% due to beta-blockers and/or calcium antagonists, 38.46% due to digoxin), 8% digitalis toxicity (all > 75 years), 6% hypotension, descompensated heart failure(DHF) 4%, 4% chest pain, palpitations 1%, 1% cardiac arrest. A 12.69% of arrhythmia required pacemaker. Outcome: 88% full recovery, 8% exitus, 2% recovery with a disability, 2% unknown. Major indications for drugs were hypertension, atrial fibrillation, heart failure, ischemic heart disease.

Discussion: In the period 2002-2011 there was an increase of cardiovascular ADR notified. These ADRs were more common in older patients where the duration and severity of adverse events are higher (polypharmacy/drug interactions). They represent a major cause of admission. Above 80% of patients' hospitalisations were shorter than 7 days, due to the reversibility of the adverse event and its severity what makes of them a priority for medical intervention.

Conclusions: The combined use of beta-blockers + calcium channel blockers (nifedipine) produce myocardial suppression increasing arrhythmogenic risk. Digoxinemia is needed periodically as digitalis toxicity is an important cause of admission which leads to extreme bradycardia. 8% of ADRs are related to the use of ophthalmic drops, so it will be necessary to be especially careful in their use in polimedicated patients to avoid drug interactions.

V-74
THE VERY ELDERLY MEDICAL PATIENT AND INTENSIVE CARE UNIT: WILL I SURVIVE?

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Objectives: To determine basal characteristics, prognostic factors and in-hospital mortality in very elderly medical patients (≥ 80 years old) admitted to an ICU.

Material and method: We studied patients admitted to the ICU of a tertiary University Hospital in Madrid (Spain). All medical patients ≥ 80 years old admitted to ICU between January 2003 and December 2011 were retrospectively evaluated. Data obtained from medical records included: age, sex, previous medical history, clinical and laboratory data, ICU complications, treatment and in-hospital mortality. Continuous variables are presented as mean and standard deviation (SD). Student t test was used for continuous variables. Chi square test was used to compare categorical variables. Univariate analysis was performed and significant variables ($p < 0.1$) were included in logistic regression to determine independent factors for in-hospital mortality.

Results: 214 patients ≥ 80 years old were studied. Basal characteristics were: age 83 (2.9 SD), 41.5% woman. 70.5% admitted from emergency department. Past history: 23% previous respiratory disease, 21.4% coronary heart disease and 17% heart failure. Functional status: 59% without mental incapacity (Hospital Cruz Roja scale), 49% without physical dependence (Hospital Cruz Roja scale). 52.2% had no comorbidities (Charlson index) At ICU admission, APACHE II mean score was 24.5 (8.5 SD) and SAPS score was 52.7 (18.5 SD). 62.9% received mechanical ventilation and 54% inotropes or vasopressors. In-hospital mortality rate was 46%. Logistic regression analysis showed that APACHE II scoring system (OR 0.85, CI 0.79-0.92, p = < 0.001), mechanical ventilation (OR 4.2, CI 1.4-12.4 p = 0.005) and length of stay at hospital (OR 1.12, CI 1.06-1.1, p < 0.001) were independently correlated with in-hospital mortality.

Discussion: Prognostic factors for very elderly medical patients admitted to ICU are not well defined in literature and proposed prognostic models are not validated. In our study, APACHE II score, mechanical ventilation and length of stay at hospital were independent predictors for in-hospital mortality. Combination score of these simple and clinically relevant variables could predict in-hospital mortality in very elderly medical patients admitted to ICU. In-hospital mortality rate in our study is higher than other studies, probably because we didn´t include elective surgical patients and because the majority of patients were admitted from emergency department.

Conclusions: In-hospital mortality in very elderly medical patients is high. APACHE II score, mechanical ventilation and length of stay at hospital are associated independently with in-hospital mortality in this group of patients.

V-75
LIVER BIOPSY AND TRANSIENT ELASTOGRAPHY TO ASSESS LIVER FIBROSIS

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Objectives: Liver disease is a leading cause of death in the HIV-infected population. Transient elastography (TE) is a useful method to assess liver fibrosis, but uncertainties still exist regarding the reliability of the technique. We compare the results of liver biopsy (LB) and TE in order to improve knowledge in this field.

Material and method: In the outpatients' clinic of the Infectious Disease Division of the Hospital General of Castellon, Spain, we compare the results of LB (METAVIR stages of fibrosis) and TE (Castera et al stages of fibrosis) of all patients that have both results available, with the tau of Kendall b correlation test. We carry out a logistic regression analysis to try to find factors associated with discrepancy in both results.

Results: We include 75 patients; 52 (69%) are male; mean of age is 45 ± 10 years; mean of body mass index (BMI) is 23 ± 3 kg/m^3; 32 (43%) are alcohol-abusers; 11 (15%) are hepatitis B virus infected; 61 (81%) are hepatitis C virus infected; and 4 (5%) have received treatment with interferon, with or without ribavirin, previously. The correlation between LB and TE results is poor: 0.294, although significant: p = 0.002. There is a discrepancy of at least one stage of fibrosis between LB and TE in 45 patients (60%), discrepancy of at least two stages in 19 patients (25%), and discrepancy in three stages in 9 patients (12%). We find no associations between discrepancy in LB and TE results and the following variables: age, gender, BMI, alcohol abuse, hepatitis B infection, hepatitis C infection, stage of fibrosis detected with LB, degree of inflammation-necrosis detected with LB, or time interval between LB and TE.

Conclusions: In a large percentage of patients there is a considerable discrepancy in the stage of liver fibrosis found with LB and TE.

V-76
TUMOR OF THE DIGESTIVE SYSTEM - THE PORTUGUESE REALITY

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Objectives: Tumors of the digestive system are highly prevalent in Portugal, and colorectal cancer (CRC)is the most frequent form. It represents the second leading cause of cancer and the leading cause of death from malignant disease in patients under 65 years. In this report we analyze the data from a retrospective review of tumors of the digestive system.

Material and method: We did a retrospective study over a period of 49 months, of 337 consecutive patients with cancer of the digestive tract, admitted at an Internal Medicine department. We analyzed demographic data, tumor location and their metastases, histological type, treatment and survival.

Results: We found that over the period studied, 337 hospitalized patients had cancer of the digestive tract (62% male and 38% female). Women had a mean age of 76 years (75% of women were over 71 years); men had a mean age 73 years (75% of men aged over 65 years). The diagnosis was established at the Department for 18% of the patients in the sample. About 50% of the patients were in stage IV of the TNM classification. The main organ of metastasis was the liver followed by lung. We show a statistically significant relationship between the existence of metastases and patient mortality ($p < 0.001$); 90% of cases were primarily tumors of the

digestive tract, representing 54% of CRC. In this group the location most frequently observed was the left colon and rectum, with adenocarcinoma accounting for the majority of cases.

Conclusions: Our analysis demonstrated the relevance of colorectal cancer in the nosological group, as well as a higher prevalence in the male gender. Most patients underwent palliative treatment partly due to the late diagnosis at an advanced stage of disease, but also explained by a population sample of elderly patients, with multiple co-morbidities and a greater likelihood of developing neoplastic disease.

V-77
CLINICAL FEATURES ASSOCIATED WITH HEPATIC STEATOSIS ON ABDOMINAL ULTRASOUND

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Objectives: The main causes of liver steatosis are alcoholic liver disease and nonalcoholic steatohepatitis. Although liver biopsy is the gold standard for diagnosis of non-alcoholic steatohepatitis, elevated levels of aminotransferases in abstinent individuals, without known liver disease, suggest the diagnosis in 80-90% of cases. Identification of clinical factors associated with ultrasound-diagnosed steatosis may facilitate the diagnosis in a noninvasive and cost-effective manner. The purpose of this study was to identify clinical variables associated with steatosis in individuals with high levels of aminotransferases.

Material and method: Prospective study on 61 patients admitted in Internal Medicine Clinic, with increased levels of aminotransferases and negative markers for viral hepatitis B and C, who underwent abdominal ultrasound.

Results: Of the 61 patients, 22 had hepatic steatosis on ultrasound (36.06%). Of the 22 patients, 17 were men and 5 women. Compared with patients without hepatic steatosis, those with fatty liver were older (mean age 57 years vs 51 years), had a higher body mass index (31.6 vs 28.4 Kg/m^2), a higher frequency of diabetes (19.7% vs 2.5%) and higher levels of basal glucose and tryglicerides. From patients with steatosis on ultrasound, 60% had dyslipidemia, 19.7% had diabetes, 18.4% reported alcohol abuse and 5.3% were exposed to parenteral risk. In comparison, from patients without steatosis on ultrasound, 49% had dyslipidemia, 3.6% diabetes, 32.1% reported alcohol abuse and 1.9% were exposed to parenteral risk. Total cholesterol was similar in the group with steatosis and the group without steatosis (242 vs 239 mg/dL).

Discussion: Hepatic steatosis is common in patients with elevated aminotransferases and negative viral markers. In the presence of hepatic steatosis, hyperechogenicity is observed on ultrasound examination, associated with changes of echo texture, vascular blurring and deep attenuation; this corresponds to steatotic infiltration greater than 30%.

Conclusions: History of diabetes, higher body mass index and hypertrygliceridemia can predict the presence of steatosis on ultrasound for individuals with elevated aminotransferases and negative viral markers. Although liver biopsy remains the gold standard, ultrasonography is the method of choice for initial evaluation of these patients because of low cost, safety, availability and acceptance by patients.

V-78
GASTROINTESTINAL DISEASES WITH SKIN MANIFESTATIONS - NOT AT ALL RANDOM ASSOCIATIONS

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Objectives: There are a variety of gastrointestinal diseases associated with dermatological diseases. The correct diagnosis of skin disease is very useful for internists and gastroenterologists in order to establish a complete and correct diagnosis. The study objectives were to establish the most common and important skin manifestations of gastrointestinal diseases, the evaluation of evolution and prognosis of both diseases.

Material and method: Prospective, clinical and paraclinical study of the cases with cutaneous manifestations occurring in the context of gastrointestinal diseases, admitted in the clinic for a period of 3 years. The study group consisted of 27 patients who had gastrointestinal diseases with cutaneous manifestations.

Results: We met the following combinations: 7 cases of inflammatory bowel disease (Crohn's disease and ulcerative colitis), of which 3 patients with pyoderma gangrenosum, Sweet syndrome 1 patient, 2 cases of erythema nodosum and 1 case of oral lichen planus; 3 patients with manifestations of dermatitis herpetiformis; 2 cases of Peutz-Jeghers syndrome; 8 patients with Kaposi sarcoma; 1 patient with Ehlers Danlos syndrome; 3 patients with pseudoxanthoma elasticum; 2 patients with hereditary hemorrhagic telangiectasia and 1 case with Henoch-Schonlein purpura. The distribution urban/rural of patients was 21 patients in urban and 6 in rural. The distribution by sex: 19 women and 8 men. Distribution by age groups revealed a maximum incidence of cutaneous manifestations of gastrointestinal diseases in patients aged 31-40 years (37.03%), followed by those between 41-50 years (22.22%) and patients between 21-30 years (18.51%).

Discussion: Prompt recognition of cutaneous diseases or manifestations associated with the gastrointestinal tract may alert the clinician to occult disease within the gastrointestinal tract and may lead to early therapeutic intervention, with better prognosis.

Conclusions: The most frequent association was seen between pyoderma gangrenosum and inflammatory bowel diseases, followed by erythema nodosum and equally by Sweet's syndrome and oral lichen planus. These data coincide with those of literature, with erythema nodosum and pyoderma on top of the cutaneous manifestations on inflammatory bowel diseases. We encountered 4 cases of oral Kaposi syndrome, asymptomatic. In other 4 cases were diagnosed by endoscopy specific pink lesions in the gastrointestinal tract. Only one patient presented at endoscopy nodular lesions with central ulceration. This patient developed abdominal pain and digestive bleeding. The patients with cutaneous Kaposi sarcoma and gastrointestinal symptoms should be rigorously evaluated, because most often the symptoms are attributed to other illnesses.

V-79
CLINICAL FEATURES AND RISK FACTORS IN PATIENTS WITH WERNICKE'S ENCEPHALOPATHY

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Objectives: The aim of our study is to describe the characteristics of patients with Wernicke's encephalopathy (WE) in our setting,

and to analyze the association between epidemiological, clinical and analytical variables with outcomes.

Material and method: Retrospective observational study in which patients were identified through International Classification of Diseases (ICD) codes registered by the Admission Department. Those patients with a discharge diagnosis of WE and hospitalized at the University Hospital of Salamanca between 01/01/2004 and 31/12/2010 were selected for inclusion. Diagnosis was confirmed after review of medical records and epidemiological, clinical, and therapeutic data of each patient during hospital stay were recorded and analyzed.

Results: During the study period, 26 patients with WE were included, 22 males and 4 females, with a mean age of 53.5 years (standard deviation: 10.64). Leading risk factor was alcoholism, which was present in 22 patients (84.6%). Besides, 7 patients (26.9%) had signs of malnutrition. Most frequent signs were gait disturbances (22 patients, 84.6%), and mental status changes (20 patients, 76.9%). Twenty-five patients (96.2%) had at least three of the symptoms described by Caine et al. However, only 8 patients (30.8%) had the classic triad (ocular abnormalities, mental status changes, incoordination of gait and trunk ataxia). Magnetic resonance imaging (MRI) was performed in 14 patients and imaging tests were not performed in 4 patients. The most frequent finding on neuroimaging was cortico-subcortical atrophy and typical MRI findings were only found in 4 patients. Twenty-five patients (96.15%) were treated with thiamine; 17 patients (65.4%) had partial clinical improvement at discharge and 5 patients (19.2%) were completely recovered. One patient died due to progression of underlying disease.

Discussion: WE is clearly related to alcoholism and malnutrition, as our results have corroborated. We have also shown that criteria described by Caine et al are more useful than the classic triad for clinical diagnosis, as previously suggested. Of note, although MRI is considered the most useful complementary test, only around 50% of the patients in our study underwent this test to confirm diagnosis. Patient outcomes are similar to those reported in other studies with residual deficits being common at discharge.

Conclusions: WE is a rare disease and alcoholism is the most common risk factor in our sample. Clinical criteria proposed by Caine et al are more prevalent than the classic triad. Almost all patients received thiamine and only 5 patients (19.2%) were completely recovered at discharge.

V-80
VITAMIN D DEFICIT IN ARAB WOMEN

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Objectives: Hypovitaminosis D and its consequences are a worldwide public health issue. The two main ways of vitamin D absorption are UV (sun) exposure and ingestion of nutrients rich in this vitamin. The goal of this study was to analize the levels of vitamin D in a sector of the population with some special features: Arab women.

Material and method: Retrospective review of vitamin D levels in Arab women admitted in the Short Stay Unit, Complejo Hospitalario de Toledo between February 1st, 2010 and March 30th, 2012. The items registered were: age, admitting diagnosis and vitamin D level. We defined insufficiency as levels under 20 ng/ml and deficit as levels under 10 ng/ml. After making a statistic analysis of the results we compared them with the existing literature in this subject.

Results: The final number of patients compiled was 16. All of them were Arab women with ages between 16 and 76 years old. Average 42.31 years. These are the data obtained: 18.75% had vitamin D insufficiency, 75% presented deficit and only one patient had Vitamin D levels in range of sufficiency. The admitting diagnosis was very varied. The two most common pathologies were pulmonary tuberculosis (18.75%) and bacterial respiratory infection (18.75%).

Discussion: The investigation of vitamin D has shown it´s important role not only in calcium and phosphorus metabolism but in many other fields such as the strengthening of the immune system or cancer prevention among others. Contrary to what it was believed before, nowadays it is proved that even in sunny areas deficit of vitamin D exists on those people who don't receive adequate amount of UV radiation which turns to be the majority of the population. Factors that interfere are: covered skin, sunscreen and high skin pigmentation. In addition to this, the input of precursors taken from the diet (mainly dairy products) has demonstrated to be insufficient too. Today there is consensus to recommend that Vitamin D supplementation should be provided, especially in some groups of population. In fact this is being done in the United States from several years.

Conclusions: Our study showed marked low levels of vitamin D in the cohort we studied. All of our subjects shared many characteristics. We highlight some of them: First and probably most important, their clothing is established according to the Hiyab, a dress code that requires to cover practically most part of the body wearing different garments. Another import fact is Moslem women usually are in charge of housework and children raising. These activities take most of their time and keep them home. In conclusion, most of the population living in Europe have shown to have Vitamin D deficit because of a poor IV (sun) exposure and insufficient intake of precursors in diet. In addition, there are particular groups with specific conditions that make them more given to have this deficit. Physicians should be aware of these factors in order to seek this fault.

Table 1 (V-80). Vitamin D levels

	Patients	Percentage
Deficit of vit D < 10 ng/ml	12	75%
Insufficiency of vit D 10-20 ng/ml	3	18.75%
Normal vit D > 20 ng/ml	1	6.25

V-81
EVALUATION OF HEALTH CARE PROVISION IN THE INTERNAL MEDICINE WARD

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Objectives: To analyze the relation between user satisfaction and attitudes towards hospitalization.

Material and method: The study was based on a sample survey, using a structured questionnaire developed for this purpose, with the Likert attitude scale. The study sample consists in all the patients discharged from an Internal Medicine ward between the 1st and 30th of September of 2011. The questionnaire consisted in different closed response items which had an evaluation between 1 and 5 (1 for very bad and 5 for very good). The items evaluated were the health professionals, image and facilities of the department, as well as food, transport and diagnostic exams. Additionally, in an open-ended question, was asked to the user about is experience with the services provided by the health care unit. The data were then analyzed in a quantitative perspective, using the SPSS tool (Statistical Package for the Social Sciences), version 19.

Results: During the period of time covered by the study, there were 284 episodes of discharge from our department; the answers rate was 78%, where the average age of the patients was of 63 years, being 51.3% male patients. The overall average of responses was 4.2, with different values for the health professionals (4.4), facilities (4.18), food (3.9), transports and diagnostic exams (3.8 each). Regarding the users experience, they liked most the health staff (41.12%) and least the facilities (21.43%) and the food (15.71%). The users suggested improvements in the facilities.

Discussion: The health care professionals were considered the key players in the whole process of hospitalization. To achieve continuous quality improvement in health care, there should be a greater commitment in particular on the areas of supply, diagnostic tests and transports.

Conclusions: The importance of the users opinion on the evaluation of health care provision can be used as an indicator for monitoring the quality of health services.

V-82
SERUM IL-17 IN CHRONIC HCV INFECTION AND ALCOHOLISM

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Objectives: Interleukin-17 (IL-17) is the main product of a subset of CD4+ T-lymphocytes, called Th-17 lymphocytes, a subtype of proinflammatory CD4+ lymphocytes, which differentiation is promoted by IL-6, TGF beta and IL-23, but suppressed by IL-4 and IFN-G.. IL-17 is involved in neutrophils recruitment. The aim of this study is to analyse the behaviour of IL-17 in patients affected by chronic liver disease.

Material and method: We included 21 patients affected by chronic hepatitis C (HCV), non drinkers; 6 HCV-infected drinkers; 13 non-HCV infected alcoholics and 7 controls, to which IL-17 was measured by chemiluminiscent assay (DPC, Los Angeles, CA, USA). Mean age was 49.9 ± 12 years (median =; interquartile range (IR) =). Diagnostic criteria for HCV infection were the following two: (1) presence of anti_HCV and/or HCV RNA by reverse transcriptase polymerase chain reaction (PCR), (2) Histology consistent with HCV. We also recorded total fat and lean mass, by whole body densitometry (HOLOGIC QDR-2000, Waltham, MA, USA), body mass index, subjective nutritional score.

Results: Highly significant differences were observed between patients and controls ($Z = 3.66$, $p < 0.0001$). When alcoholics, alcoholic HCV patients, non alcoholic HCV patients and controls were classified in 4 groups, differences were also highly significant differences, both ethanol ($F = 5.67$) and HCV infection ($F = 6.13$, $p < 0.025$ in both cases) playing independent roles on IL-17 (KW = 14.93; $p = 0.005$). However, we failed to find any relation with liver function and nutritional status. Among alcoholics, a significant relationship was observed between IL-17 and TNF-alpha (rho = 0.42; $p = 0.016$). Significant relationships were also observed between MDA levels and TNF-alpha, IL-8 and TGF-beta.

Conclusions: IL-17 is higher in patients than in controls, both ethanol and HCV infection play a role on this elevation, and is related to TNF alpha levels.

V-83
MORTALITY IN ALCOHOLICS

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Objectives: Alcoholism is associated to a high mortality rate. Causes of death of alcoholics may be linked to organic complications, ethanol-related immunodeficiency, continuous drinking or underlying conditions. The aim of the present study is to analyze the causes of death among a cohort of alcoholic patients, admitted to this hospital for organic complications in relation with alcohol abuse, prospectively followed up during a median of ten years.

Material and method: Mortality, causes of death, intensity of ethanol consumption, duration of consumption, concomitant use of tobacco, age, sex, and nutritional status (BMI, subjective nutritional score (SNS)), liver dysfunction (prothrombin activity, albumin, bilirubin, ascitis, encephalopathy) were assessed at admission. Patients were followed up as outpatients every six months.

Results: Ninety-two out of 226 patients died during the observation period, 77 out of 195 men and 9 out 20 woman ($\chi^2 = 0.23$). Causes of death were liver failure 40 cases, cancer 18 cases, cardiovascular disease 15 cases, respiratory disease 8 cases, pancreatitis 2 cases, upper gastrointestinal hemorrhage not related to liver cirrhosis 1 case, sepsis 10 cases (most complicating liver failure) and stroke 3 cases and 1 case, unknown cause. By Cox regression analysis, variables independently related to death were ascitis and encephalopathy, but if these two parameters were substituted by the variable "cirrhosis", age, sex and prothrombin activity were those with independent prognostic value. Patients who died by liver failure were younger (51.1 ± 9 years) than those died for other causes (59.2 ± 14, $t = 3.1$; $p = 0.003$). Those who died had been drinking for longer time than those who survived ($t = 2.28$; $p = 0.021$). There was a highly significant association between ongoing alcohol consumption and death (only 14 out of 91 remained abstinent after admission among those who died versus 58 out of 135, $\chi^2 = 18.96$ $p < 0.001$).

Conclusions: Mortality among alcoholics who experienced at least one hospital admission is very high, and death occurs at young age. About 45% died in relation with liver failure. Death is in relation with the duration of ethanol consumption and strongly influenced by ongoing drinking.

V-84
CANCER AND ALCOHOLISM

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Objectives: Alcoholism may be viewed as a risk factor for cancer development. The aim of the present study is to analyze which variables are associated to cancer development among a cohort of alcoholic patients, admitted to this hospital for organic complications in relation with alcohol abuse, prospectively followed up during a median of ten years.

Material and method: Incidence of cancer, mortality, intensity of ethanol consumption (g/day), duration of consumption, concomitant use of tobacco, age, sex, and nutritional status (BMI, subjective nutritional score (SNS)), liver dysfunction (prothrombin activity, albumin, bilirubin, ascitis, encephalopathy) were assessed at admission. Patients were followed up as outpatients every six months for a median of ten years.

Results: Cancer was observed in 36 out of 227 patients (15.86%). The most frequent tumors were: cavum and larynx, 13 cases; liver, 5 cases; colon, 5 cases, pancreas, 4 cases; other locations, 9 cases. Eighteen patients with cancer died during the observation period compared with 75 out of 191 without cancer ($\chi^2 = 1.44$, $p > 0.1$): No associations were observed between cancer and sex ($\chi^2 = 2.05$), liver cirrhosis ($\chi^2 = 0.56$), tobacco consumption ($\chi^2 = 2.30$) virus C infection ($\chi^2 = 1.31$) or virus B infection ($\chi^2 = 0.44$). Age of those with cancer was higher (57 ± 12 years) than that of those without cancer (51 ± 11 years, $t = 2.7$; $p < 0.01$). There was a nearly significant trend to higher daily consumption of ethanol among those with cancer (232 ± 86 g) than among those without cancer (196 ± 77 g, $p = 0.07$)). There were also no differences in nutritional status at admission, but those who developed cancer showed a grater loss of lean mass at a second evaluation 6 months later ($\chi^2 = 4.26$; $p = 0.039$).

Conclusions: Cancer among alcoholics who experienced at least one hospital admission is high, leading to a mortality rate of 50% at relatively young age (57 years). A loss of lean mass is associated with cancer, although no significant differences were observed in nutritional status at baseline between those who developed cancer and those who did not.

V-85
WHAT DOES A HOSPITALIST HAVE TO OFFER TO A SURGICAL DEPARTMENT?

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Objectives: Patients admitted to hospitals are increasingly older and sicker with many comorbidities. In Canada, US and UK there are hospitalists who manage medical conditions for hospitalized surgical patients. The benefits of hospitalist model include lower cost and reduced length of stay, lower mortality and readmission rates. In Spain a few internists are shyly integrating into surgical departments in order to improve preoperative and postoperative care. In July 2010, the Hospital Medicine Unit was created at Hospital Clínico San Carlos. Its aim is to improve care delivery, inpatient management and to guarantee continuity of care through early discharge and home hospital (HH) programs.

Material and method: Patients admitted to the Department of Surgery from July 2010 to June 2011 were included. Age, diagnosis, hospitalist (internist) follow-up days, length of stay and discharge were assessed. The most frequent surgical diagnostic related groups (DRG) were compared with a control group of patients not evaluated by a hospitalist. Patient satisfaction was studied by a normalized test given by the Hospital Quality Unit.

Results: A total of 201 patients were evaluated, mean age 67.9 ± 16.6 years, 46.8% males, 53.2% females. The most frequent diagnostic groups were non-malignant biliary disease, colorectal cancer, abdominal wall hernias and other gastrointestinal cancers. In 78% of patients, postoperative complications developed: cardiovascular, infectious, kidney and pulmonary diseases. The average length of hospitalist follow-up was 4 days (RIC = 2-11). 52.2% of patients were discharged home, 34.3% transferred to HH, 6% transferred to other facility, 4.5% deaths occurred and the remaining 3% were transferred to the ICU. The cost in euros of the hospital stay of the most frequent DRGs was compared to the control group. A total of 186 patients were analyzed, mean aged 66 ± 16 years, 44.6% males, 55.6% females. These DRGs evaluated by the hospitalist represented 40% of the overall stays and 23.7% of all patients of the Department. DRG 585 included 22 patients, mean age 74.7 ± 13.8 years. DRG 148 comprised 15 patients, mean age 71.9 ± 14.2 years. DRG 556 included 10 patients, mean age 70.7 ± 18.6 years. For these DRG 760.732€ were saved thanks to reducing length of stays (777 days). Satisfaction test began in October 2011: 100% of them were satisfied or very satisfied, 78% being very satisfied with care provided by hospitalist. All patients knew they were being treated by a hospitalist together with a surgeon. Mean age 70.6 ± 9 years. Study has not finished.

Discussion: Some patients undergoing surgery pose a challenge because of their comorbidities, their age or postoperative complications, requiring assessment by an internist. Furthermore, patients transferred to HH may see a reduction in adverse effects. An internist working in the Department of Surgery full-time and the development of "hospitalist programs" represent a new organization model beneficial to the patient. In our case, the program reduced the length of stay and the costs, and increased patient satisfaction.

Conclusions: 1. Medical comanagement of surgical patients by hospitalists and surgeons shows a shorter hospital stay, earlier discharge, lower costs and increased perceived quality by patients. 2. Shorter length of stay improves perceived quality of life because of the reduction in adverse effects. 3. Early discharge shortens length of stay so the cost of a given DRG is reduced, with high perceived quality. 4. This organization model seems to be more efficient and provides increased perceived quality to patients, so it could be extended to the rest of the Spanish health care system.

V-87
DIFFERENCES BETWEEN NON-FAMILIAL AND FAMILIAL PAPILLARY THYROID CARCINOMA: CLINICAL SERIES AND REVIEW OF THE LITERATURE

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Objectives: The aim of this study was to analyze the characteristics of the familial papillary thyroid carcinoma (PTC) cases diagnosed in our institution and its differences with the sporadic PTC.

Material and method: 3 families diagnosed with familial PTC were reviewed. Clinical presentation, extension, evolution after the treatment and follow-up of the healthy members in the last 6 years were studied. A literature review was performed.

Results: "A" Family: A 55 year-old male was referred for thyroid nodule study. His mother and brother were diagnosed with PTC. The fine-needle aspiration biopsy (FNAB) was positive for papillary carcinoma and the thyroid was surgically excised. Lymph-node metastases were found in surgery and ablation with 131I was made in addition to levothyroxine (T4) replacement (suppressive doses). Serum thyroglobulin (Tg) concentrations after treatment were undetectable and Tg antibodies (Ab) were negative. 4 years after surgery increased levels of Tg were detected (2.82ng/ml) with negative Tg Ab. The echography (US) showed a hypoechoic nodule (size 12 × 7 mm); body CT scan and FNAB studies were compatible with a relapse. The patient was reoperated and new 131I dose was given in the following 2 months. No distant metastases were observed in CT scan afterwards but persistently high serum Tg levels (13 ng/ml) were caused by a tumor recurrence in the surgical wound. New surgery is pending. "B" and "C" Families have similar characteristics: 2 young men (25 and 34 years old) were admitted for thyroid

nodule study (diameter 15 and 18 mm respectively). Familial clinical history included grandmother PTC. FNABs cytological evaluations were benign but the presence of microcalcifications in US study and familial clinical history motivated surgical treatment. The histological thyroid evaluation confirmed PTC with lymph-node metastases. The treatment was the same as the "A" Family. A lymph-node recurrence 3 years later was detected in the B family case and a second surgery procedure was performed in addition to new 131I dose. Both patients have undetectable Tg levels with negative Tg Ab. Physical exam and US studies were performed in the family members of A, B and C families. No new cases were identified.

Discussion: Although most PTCs are sporadic, familial PTC can be identified in a low percentage of cases. According to the literature, patients with familial PTC are younger with multifocal and more aggressive tumors compared to the sporadic type. However our study shows cases with focal thyroid lesions. There are no typical manifestations. Genetic risk factors in this variety or carcinoma are not well described. Correct clinical and complementary exams with a high clinical suspicion are essential.

Conclusions: Aggressive behavior of familial papillary thyroid microcarcinoma is confirmed in our study. Familial papillary thyroid carcinoma is probably a polygenic illness. FNAB studies have false negatives and there is no available genetic test. Hence, clinical suspicion in patients with thyroid nodule and PTC in family members is essential.

V-88
UNINTENDED MEDICATION DISCREPANCIES AT THE TIME OF HOSPITAL ADMISSION

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Objectives: Adverse drug events represents an emerging pathology with an important impact in terms of hospital stay, social factors and financial costs.Unintended medication discrepancies that represent errors are common at the time of hospital admission. These errors are particularly worthy of attention because they are not likely to be detected by computerized physician order entry systems.

Material and method: We prospectively studied patients reporting the use of at least 3 regular prescription medications who were admitted to general hospital. The primary outcome was unintended discrepancies (UD) between the physicians' admission medication orders and a medication history obtained through interview. We also evaluated the probability that a medication discrepancy might have caused clinical deterioration (errors). All discrepancies were reviewed with the medical team to determine if they were intentional or unintentional. All unintended discrepancies were rated for their potential to cause patient harm.

Results: Eighty patients were enrolled. The mean age of the patient was 75, and 55% were men, 55% had hypertension, 43.8% had diabetes. Seventy percent were taking ten or more drugs. Nineteen patients (23.8%) had at least one UD. Drug omission was the most frequent discrepancy, detected in 50% of cases, followed by incorrect or omitted dose (21.8%). Only 3% of errors were harmful to patients. Medications without discrepancies per patient were 3.4.

Discussion: Results supports an improvement tendency due to the introduction of a tool which improves pharmacopeia settlement by decreasing the non-justified discrepancies frequency. Increasing the sample set size would be recommended, therefore, justifying using tools which decrease the mistake rate and in consequence, the morbimortality under consensus among all involved personal in the sanitary assistance. In our study personal of the selected units greatly welcomed.

Conclusions: Medication discrepancies at the time of hospital admission are common, and some have the potential to cause harm. To improve patient safety better methods of ensuring an accurate medication history at the time of hospital admission are needed.

V-89
HELLP SYNDROME AS A WORK OF INTERNIST

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Objectives: HELLP syndrome is characterized by the appearance of hemolysis, elevated liver enzymes and thrombocytopenia in the third trimester of pregnancy (between weeks 28 and 36 in particular), and that is a major cause of morbidity and mortality for pregnant women and fetus. Can lead to serious complications such as DIC, abruptio placentae, pulmonary edema, stroke, heart attack, liver hemorrhage, retinal detachment... For some authors, is considered a severe form of preeclampsia. Its incidence is 1 per 1,000 pregnancies. We work in a private hospital opened in August 2010. It has 100 hospital beds, of which 50% of income corresponds with the Department of Obstetrics and Gynecology. It created the position of Intern assigned to this specialty, to anticipate problems that may arise to, as well as its treatment and outcome derived from their income. We have detected and treated specific pathology of pregnancy, uncommon in the general population, such as HELLP syndrome. Objectives: description of the clinical features of patients affected with HELLP, a rare condition, but appears more important due to population changes and habits of life we are living, such as pregnancy in women increasingly aphthous, the use of in vitro fertilization (IVF) and increase in cardiovascular risk factors.

Material and method: We have compiled all cases diagnosed and treated in our center since its opening, representing 21 months of follow-up, to describe their clinical characteristics and evolution.

Results: We collected a total of four patients affected with this picture of a 3,204 total deliveries from August 2010 to April 2012, representing an incidence of 1.2 cases per 1,000 pregnancies. The average age of affected patients was 34 years, mean BMI of 31.54. The mean gestational age at which symptoms began was at 34.5 weeks gestation. 2 of the 4 pregnancies were achieved by IVF. All cases had to be finalized as emergency cesarean section and clinical and laboratory signs normalized within two days following the birth on average. The average stay of 7.5 days was required, with an

Table 1 (V-89). Clinical features

	Age	Gestational age	BMI	Days in hospital/ICU	Twins	IVF
Case 1	35	33	28.51	10/1	No	Yes
Case 2	34	34	28.30	8/3	Yes	Yes
Case 3	36	36	40.65	5/2	No	No
Case 4	31	35	28.71	7/0	No	No

average stay in ICU of 1.5 days. Our patients required a mean of 3.25 different antihypertensive drugs to control. None of our patients suffered serious complications. After follow-up visits of patients, symptoms were fully normalized and treatment in about two weeks.

Discussion: Early diagnosis and early treatment of our patients by the internist in charge of it, perhaps it is responsible for no serious complication and favorable resolution of the cases presented. The incidence in our series is similar to that described in the literature. With population changes we are experiencing, such as maternal age increasingly advanced, obesity and the increase in the IVF and cardiovascular risk factors, we must be prepared to diagnose and treat episodes as HELLP syndrome, which may see increased frequency.

Conclusions: The early diagnosis and management of HELLP syndrome is a problem for professionals in obstetrics, mainly due to the lack of signs and symptoms, which delays the proper management of this disease. The early and continuous evaluation of our patients by the internist helps prevent serious complications and the favorable resolution of the cases presented.

V-90
EPIDEMIOLOGY OF ISRAELI TRAVELERS WITH PRE-EXISTING MEDICAL CONDITIONS TRAVELING TO TROPICAL COUNTRIES

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Objectives: Data regarding travelers with pre-existing medical conditions (TPMC) to tropical countries are limited. We sought to describe the epidemiology of those travelers vs healthy travelers to the same countries. In addition, the rates of pre-existing medical conditions among travelers to the tropics were compared to the rate in the general Israeli population.

Material and method: A retrospective cohort study of travelers attending the Sheba Medical Center Travel Clinic, a large travel clinic in Israel, was conducted, looking at data from January 2005 to December 2007. We analyzed demographics, travel destinations, travel dates and duration, as well as the medical history (pre-existing illness, chronic medications, and allergies) of the travelers. Epidemiology of chronic illnesses in Israel was extracted from the National Health Survey 2003-2004 of the Israel Center for Disease Control, Ministry of Health.

Results: A total of 20,274 travelers attended the pre-travel clinic during this 3- year period. Complete data were available for 18,666 travelers, from whom 3,407 travelers (18.3%) reported pre-existing medical conditions. The mean age (± SD) of TPMC and healthy travelers was 41.7 ± 17.9 and 29.4 ± 12.3 years, respectively, ($p < 0.001$, Student's t-test). Among TPMC, 53% were males compared with 51% of healthy travelers ($p < 0.04$, chi-square test). The average planned duration of travel for TPMC and healthy travelers was 100 ± 165 and 74 ± 130.8 days, respectively, ($p < 0.001$, multivariate linear regression adjusted for age, gender, date of departure, destination continent and purpose of journey). Common destination continents were South East Asia (61% of healthy travelers, 59% of TPMC), Latin America (30% of healthy travelers, 34% of TPMC) and Africa (13% of healthy travelers vs 10% of TPMC),($p < .0001$, chi-square test). The major groups of pre-existing medical conditions were endocrine/metabolic (42%), cardiovascular (29%) and pulmonary illnesses (17%). Less common conditions were immune deficiency (3%), neurologic (4%) and psychiatric (5%) conditions. The rates (%) of the following diagnoses among the general Israeli population and the Israeli travelers to the tropics were, respectively, hypertension 20/3.9, allergic diseases 10/0.4, heart diseases 8.7/1.2, anxiety/affective disorders 8.2/0.9, diabetes 8.1/1.3, thyroid disorders 7.3/1.8, asthma 7.2/3.0, renal disorders 6.3/0.14, chronic lung diseases 5.9/0.02, and malignancies 3.4/0.6. The difference between each pair of rates was statistically significant ($p < 0.001$, chi-square test).

Conclusions: TPMC accounted for a significant number of Israeli travelers to the tropics who presented to our clinic, approaching one fifth of our patients. TPMC were significantly older and planned to travel for shorter periods of time than healthy travelers. The rates of pre-existing medical conditions seem to be significantly lower among travelers compared to the general population. Further studies are needed to substantiate these data and examine outcomes of TPMC.

V-91
BEDSIDE ECHOGRAPHY BY HOSPITALISTS VS STANDARD ECHOGRAPHY: REMOVING ULTRASOUND WAITING LISTS

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Material and method: Medical staff participated in a simple 2 months echography training program. 65 patients scheduled for standard echocardiography and 23 for standard abdominal echography as part of clinical care underwent bedside echography (BE) within 24 hours as support for the physical examination and to assess clinically important common diagnoses. Equipment used by the internist was portable devices. Both the cardiologist and the radiologist used no portable devices. Exclusion criteria were a delay of 24 hours between the scanning by the internist and the scan performed by the radiologist or cardiologist. Agreement was calculated between bedside echography and standard echography by using standard echography as the gold standard. All corresponding measurements between the portable device and the traditional machine were assessed by linear regression analysis for kappa correlation coefficient.

Results: The agreement kappa coefficient was 0.84 (95%CI 0.69-0.99) for left atrial enlargement, 0.58 (95%CI 0.24-0.91) for left ventricle enlargement, 0.62 (95%CI 0.41- 0.83) for left ventricular global function, and 0.49 (95%CI 0.23-0.75) for pericardial effusion. For the detection of hepatomegaly the kappa coefficient was 0.43 (95%CI 0.01-0.84), for detecting of liver echogenicity the kappa was 0.79 (95%CI 0.51-1.00), for the splenomegaly 1.00 (95%CI: 1.00-1.00), for gallstones also 1.00 (95%CI: 1.00-1.00), and for ascites 0.62 (95%CI 0.13-1.00).

Discussion: Small, portable, ultrasound machines have the potential to revolutionize patient care by making ultrasound available to all clinicians. Application of this new technology, however, requires skills on the part of human users. We found that with as little as two months of training, internists could use portable devices to answer simple but common and important clinical questions. To understand whether and how portable echography can be used in clinical care, however, it is critical to understand whether it can be performed by those with less experience than currently required for standard echography. A number of prior studies have investigated portable echography by physicians without formal echography training using either a 2-month training program. DeCara et al developed a significantly more intensive portable echocardiographic training program for medical residents and then compared them with experienced echocardiographers using portable echocardiography. They found that compared with experienced echocardiographers, medical residents using portable echocardiography had a slightly lower sensitivity (88% vs 80%) and specificity (98% vs 97%) for clinically

important findings and similar sensitivity (65% vs 63%) and specificity (95% vs 92%) for all findings. Our data support the idea that physicians with limited training can use a focused portable echography examination to assess important clinical items. The portable ultrasound should not be considered a replacement for standard echocardiography. In practice, patients with other suspected abnormalities, poor sound transmission, or indeterminate or abnormal findings on portable echography should be referred for standard echography or other appropriate diagnostic testing.

Conclusions: Medical house staff with limited training in echography can use bedside echography to assess clinically important common diagnoses with moderate accuracy. Integration of a portable ultrasound device with the physical examination improves the yield of information. In this study we compare also the degree of agreement on other parameters such as valvular dysfunctions, also with good results.

V-92
IMPAIRED LIVER FUNCTION TESTS IN INTERNAL MEDICINE INTENSIVE CARE UNIT: A RETROSPECTIVE ANALYSIS

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Objectives: Impaired liver function tests are often encountered in intensive care unit patients due to various reasons. Besides alanine aminotransferase (ALT) and aspartate aminotransferase (AST); alkaline phosphatase (ALP), gamma-glutamyl transpeptidase (GGT), albumin, prothrombin time and bilirubin give information about the inflammation, damage or function of liver cells or a biliary tract obstruction. We aimed to retrospectively analyse epidemiological, clinical, and laboratory data of patients admitted for various reasons at the internal medicine intensive care unit and detected to have elevated liver enzyme(s) during the admission or hospital stay.

Material and method: 138 patients having at least one elevated liver enzyme (ALT, AST, ALP, GGT) admitted at our internal medicine intensive care unit for various reasons between 01 October 2011 and 01 May 2012 were recruited in the study. Liver enzymes (ALT, AST, ALP, GGT), prothrombin time, bilirubin, lactate dehydrogenase (LDH) and albumin measurements were recorded. SPSS 15.0 was used for statistical analysis.

Results: Of the 138 cases, 70 (%50.7) were male and 68 (49.3%) were female. Mean age of the male and female patients were 60.94 ± 21.7 and 70.7 ± 16.4. Mean values of ALT, AST, ALP, GGT, total bilirubin, LDH, albumin and prothrombin time were 203 IU/ml, 362 IU/ml, 207 IU/ml, 151 IU/ml, 2.04 mg/dl, 962 IU/ml, 2.7 g/dl and 22.5 sec, respectively. As expected due to use of many pharmacological interventions, especially antibiotics, the mostly encountered cause of impaired liver function tests were hepatotoxic agents (n = 105; 76.1%). Ischemic causes due to hypotension or cardiac failure were the second most common aetiology (n = 19; 13.8%). Other rarer causes were biliary tract obstruction (n = 7; 5.1%), viral hepatitis (n = 6; 4.3%; hepatitis C in 4 and hepatitis B in 2 patients) and Wilson's disease (n = 1; 0.7%). When toxic causes were more common in males (57/105; 54%), ischemic and cholestatic causes were more common in females (11/19; 58% - 5/7; 71%, respectively). 72 cases (52.2%) died during the hospital stay. Ischemic causes were associated with significantly higher mortality rates (14 of 19 cases; 73%, $p < 0.05$). In the subgroup analysis, ischemic causes were associated with death in females more than males (10 of 11 females; 90.1%, $p < 0.01$).

Conclusions: In internal medicine intensive care departments, liver function abnormalities are common and if there is no history or clinical finding of hypotension, cardiac failure, viral hepatitis or biliary tract obstruction, the situation is generally due to toxic causes. Possible hepatotoxic agents should be firstly reviewed when hepatic function impairment occurs in an intensive care patient. Ischemic causes generally have a poor prognosis.

V-98
RETROSPECTIVE ASSESSMENT OF METASTATIC SPINAL CORD COMPRESSION (MESCC) IN PATIENTS WITH CANCER

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Objectives: To asses MESCC frequency and epidemiology characteristics in patients with cancer admitted to our service.

Material and method: Descriptive, retrospective study conducted at the Paliative Care Unit of the Internal Medicine department of the Hospital Severo Ochoa (Madrid, Spain) from 2002 to 2011. Among a total of 1.736 patients in palliative care, 29 patients with a diagnosis of MESCC were identified. Sex, age, tumor type and stage, signs and symptoms, median time from symptoms onset to diagnosis, treatment regime, treatment response and mortality were collected.

Results: From a total of 1.736 patients in palliative care during the study period, 29 (1.7%) cases of MESCC were identified. Mean age was 65.6 years (SD 12.2). Lung cancer was the primary tumour in 13 cases (44.8%) followed by prostate (13.8%), breast (10.3%) and, colorectal cancer (10.3%). These four types comprised 79.31% of our series (n = 23). At presentation of MESCC, 58.6% of our patients had stage IV neoplasic disease being the dorsal (41.4%, n = 12) and lumbar (20.7%, n = 6) regions of the vertebral column the most frequently affected regions. Multiple site disease was present in 55.2% (n = 16) of cases. Pain was the predominant symptom (41.4%; n = 12) followed by motor dysfunction (37.9%; n = 11) and 27.6% (n = 8) showed some type of autonomic dysfunction. Autonomic symptoms were presents in 50% of patients with median survival time of less than one month. MESCC was the presenting symptom in 20.7% of our series. Mean time from beginning of symptoms to MESCC diagnosis was 34.5 days while motor function prior to diagnosis was preserved only in 10.3% (n = 3) of patients. Steroid treatment was used in 96.5% (n = 28) of patients and radiotherapy in 96.4%. Median survival after MESCC diagnosis was 82 days. 79.3% (n = 23) of patients died in less than 4 months after diagnosis of MESCC, mostly from lung cancer as a primary tumor (52.2%). For survivals longer than 4 months, the most frequent primary tumour was prostate adenocarcinoma (50%).

Discussion: Metastatic epidural spinal cord compression (MESCC) is a complication of patients with cancer. The incidence in patients with cancer is around 2-5% which is in accordance with the results of our series (1.7%). Tumour types that cause more frequently MESCC are prostate, breast and lung cancer. In our analysis we have observed similar frequency rates between breast and colorectal cancer. In accordance to the literature thoracic spine is the most frequent location and comes after lumbosacral spine. In this study only 10.3% of patients had pre-treatment preserved basal function and more than 50% had pre-treatment basal motor dysfunction a proportion which perhaps could explain why only 6.9% benefited of steroid or radiotherapy treatments. Median survival time for patients with MESCC is 3-6 months (82 days in our series). Autonomic dysfunction could be a predictor of mortality as they were present in 50% of patients with a median survival time of less than one month.

Conclusions: MESCC is an indicator of poor prognosis in patients with cancer. The most common neoplasia behind it is lung cancer and thoracic spine is the most frequently location affected. The first line of treatment for most patient are either corticosteroids or

radiotherapy for patients who have radiosensitive tumours or are ambulatory when they begin treatment. Well established prognosis items are pre-treatment basal motor function, speed of symptom onset, functional outcome after therapy and according to our results, the presence of autonomic symptoms.

V-99
NEUROLOGIC MANIFESTATIONS OF HEART DISEASES IN YOUNG ADULTS THREE CASE REPORTS AND LITERATURE REVIEW

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Objectives: We report three cases of acute stroke in young adults as the first clinical manifestation of heart disease. The purpose of this presentation is to review the possible causes of cardioembolic stroke as well as other ischemic stroke causes in young patients.

Material and method: We present the three case reports of young adults between the ages of 21 and 25 with no other conventional vascular risk factors (hypertension, diabetes, dyslipidemia) or drug abuse. Echocardiography, computer tomography scanning and magnetic resonance imaging were performed, which allowed a definite diagnosis.

Results: The first patient had a history of Ostium primum atrial septal defect and a mitral mechanical heart valve, and an intracardiac thrombus was found as the source of embolism. In the second patient, an intracardiac mass was found in the apex of the left ventricle, while in the third patient an acute bacterial endocarditis with septic embolization was diagnosed.

Discussion: Etiology of cerebrovascular events in the young must be thoroughly investigated so as to guide prevention and treatment, as the differential diagnosis for possible etiologies is broader than that for older patients. Evaluating the source of cardiac embolism is one of the most frequent reasons for cardiac consultation.

Conclusions: Stroke in young adults is more common than expected and cardioembolism is a major cause. We present the diagnostic approach to young patients (up to 45 years of age) with stroke as it differs from the standard approach for older adults.

V-100
CORRELATION BETWEEN EPISTAXIS SEVERITY SCORE WITH COMPUTED TOMOGRAPHY FINDINGS AND OTHER CLINICAL MANIFESTATIONS IN HEREDITARY HEMORRHAGIC TELANGIECTASIA

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Objectives: To identify the correlation between epistaxis severity score (ESS) and findings in thoracoabdominal computed tomography (CT) or with clinical severity in hereditary hemorrhagic telangiectasia (HHT).

Material and method: Descriptive study of a prospective series of patients with HHT attended at a Functional Unit of HHT in a tertiary university hospital. We included patients with thoracoabdominal CT and determination of ESS. The study period was 3 years (2009-2011). The data analysis was performed using SPSS 15.0.

Results: The study included 27 patients. The average age was 51.2 (24-79; SD 16) years and 18 (66.7%) patients were male. All patients had definitive HHT (Curaçao criteria 3 or more), except one patient who had a probable HHT. Also, all patients had a family history and presented epistaxis as first clinical manifestation, with a daily or weekly frequency in 70.4% of the cases. Mean hemoglobin, leukocytes and platelets levels were 123 (75-167; SD 23.4) g/L, 5692.59 (3,000-14,300; SD 2,509.81)/mm^3 and 246,407.41 (135,000-340,000; SD 60,499.4)/mm^3, respectively. 44'4% of the patients had anemia, being with ferrotherapy 66.7%, requiring a blood transfusion 37% and needing invasive therapeutic measures (embolization, surgery or electrocution) 29.6% of them. 40.7% of patients required emergency attention. 74.1% had visceral involvement in CT angiography: liver in 12 (44.4%) patients, lung in 5 (18.5%), liver and lung in 2 (7.4%), and pancreas in one (3.7%) patient. The average ESS was 4.34 (0.51 to 10, SD 2.29), classified as moderate-severe (4 or more points) in 40.7% of patients. Correlation between visceral involvement and patients with moderate-severe ESS (4 or more points) or mild ESS (less than 4 points) (75% vs 72.7%) has not been detected. Patients with ESS moderate- severe (4 or more points) had statistically significant, more frequently heart disease (45% vs 6.2%) anemia (72.7% vs 25%), ferrotherapy (90.9% vs 50%) blood transfusion (63.63% vs 18.75%), invasive therapeutic measures (78.9% vs 12.5%), emergency room visits (81.8% vs 12.5%), older age of onset (22.9 vs 13.2), lower hemoglobin levels (108.64 vs 133.31) and leukocytes (4081.82 vs 6800).

Discussion: ESS correlates not only with severity of epistaxis but also with consequences, but its correlation with visceral involvement in CT has not been detected. This data assesses the heterogeneous vascular involvement in patients with HHT and supports the need for thoracoabdominal CT as a screening in these patients independently of his ESS.

Conclusions: Vascular pathological findings in systematic thoracoabdominal CT are frequent in HHT. Patients with ESS moderate to severe (4 or more points) had more frequently heart disease, anemia, ferrotherapy, blood transfusions, invasive therapeutic techniques, emergency room attention, older age of onset, lower hemoglobin and leukocytes levels. We have not found significant correlation between ESS and CT pathological vascular findings.

V-102
DOES THE INTEGRATION OF THE ACUTE AND COMMUNITY TRUSTS INCREASE THE EFFECTIVENESS OF EARLY SUPPORTED DISCHARGE OF STROKE PATIENTS?

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Objectives: Studies have shown significant benefits of early supported discharge (ESD) of stroke patients from hospital. Nationally many hospital and community trusts have integrated to facilitate the smooth transfer of patients to their home. The aim of the study was to show whether there has been a reduction in length of stay of ESD stroke patients after integration of the hospital and community trusts in Croydon.

Material and method: After integration of the hospital and community trusts, the community stroke teams were co-located with the Croydon stroke unit (SU) (July 2011). Patient data were retrospectively reviewed for all patients admitted to the stroke unit six months before and after the reorganisation of the stroke pathway.

Results: From January to July 2011, 157 patients were discharged from the SU. The average age was 74 years for patients from Croydon (48.55% female). The median length of stay was 14.5 days for Croydon. Of the 143 patients that were discharged after integration of the stroke pathway the average age was 74.5 years (58.74% female). The median length of stay was 12 days.

V-103
GENERAL CHARACTERISTICS OF A INTERNAL MEDICINE SHORT STAY UNIT IN A THIRD LEVEL HOSPITAL

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Objectives: To analyze the demographic characteristics, personal medical history, comorbidity, diagnosis, average stay and diagnosis complexity in a short stay unit depending on Internal Medicine in a third level hospital.

Material and method: Descriptive study of the patients in our Internal Medicine Short Stay Unit (UCEMI), from the 1st July to the 30th November 2011. At the Unit we have 8 beds, 2 consultants and 1 resident. The data were extracted from the UCEMI database, and analyzed with the statistical program SPSS V19.0.

Results: We analyzed 196 patients, which represent the 23% of all the patients staying at the Internal Medicine Unit. The average age was 65.97 years old, 56% of which were men and 44% women. 180 patients (93%) were admitted from the emergency unit, 4 from clinic, and 8 from the surgery waiting list. The average stay was 3.41 days, and when the patients were discharged, most of them (83%) went home, other were transferred to a different unit, and there was only one exitus occurred. The main diagnosis for the patients who went home after being discharged were respiratory pathology (32%), cardiovascular pathology (24%), nephro-urological pathology (21%) and digestive pathology (11.39%). The most frequent personal medical history were arterial hypertension (55%), structural heart disease (41.8%), diabetes mellitus (38%), COPD (27.2%), chronic kidney disease (25.3%) and atrial fibrillation (19.6%). 21.5% of the patients showed advanced cognitive deterioration, and 54.5% showed 3 or more secondary diagnosis.

Discussion: UCEMIs are an alternative to normal hospitalization, and they are effective improving the clinical practice and management parameters, without damaging the quality of the practice. Their objective is to support the normal hospitalization, so there should be a joint collaboration in making protocols of action, admission criteria and/or patients flow. In our study, many patients showed very complex chronic diseases or comorbidity, having success in many of the cases, without damaging either the average stay or the quality of the practice. This study shows the typical limitations of a descriptive and retrospective analysis. Even so, the average stay, comorbidities and the characteristics of the patients are very similar to those published in other studies.

V-104
NUTRITIONAL PARAMETERS ASSESSMENT IN A POPULATION WITH CHRONIC LIVER DISEASE

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Objectives: The aim of this study was to assess nutritional profile disorders in a group of patients with chronic liver disease (CLD), and its relationship with the coexistence of liver cirrhosis (LC) and hepatitis C virus (HCV) infection.

Material and method: A total of 108 patients, 61 (56.5%) males with a mean age of 56.2 + 13.2 years, were enrolled. 26 (24.1%) patients had liver cirrhosis and 27 (25%) had chronic HCV infection. The following data were collected: time from diagnosis of CLD, anthropometric data (body mass index, BMI) and analytical profile including haemoglobin, haematocrit, calcium, phosphor, prothrombin index, albumin, prealbumin and lymphocytes count (absolute level and perceptual value). Statistical analysis was performed with PASW 18 (SPSS Inc).

Results: The prevalence of nutritional profile disorders was higher among cirrhotic patients. Significant lower mean levels of hemoglobin in respect to non-cirrhotic group were detected (13.3 g/dL vs 14.6 g/dL, p 0.001), as well as for hematocrit (38.5% vs 42.5%, $p < 0.001$), prothrombin index (71.0% vs 104.2%, $p < 0.001$), seric albumin (3.7 g/dL vs 4.5 g/dL, $p < 0.001$), seric prealbumin (13.5 mg/dL vs 24.1 mg/dL, $p < 0.001$), absolute lymphocytes level ($1.720 \times 10^3/\mu L$ vs $2.361 \times 10^3/\mu L$, $p = 0.001$) and calcemia (9.0 mg/dL vs 9.3 mg/dL, $p = 0.001$). Patients with HCV infection had a longer time of disease from diagnosis and significant lower levels of seric albumin, prealbumin, total cholesterol, absolute level of lymphocytes and calcemia. The differences noted were sustained when patients with LC were stratified according to the coexistence of HCV infection.

Discussion: Our study shows a characteristic nutritional profile in individuals with LC, with lower levels of hemoglobin, hematocrit, albumin, prealbumin, lymphoytes count and prothrombin index. Such alterations were not conditionated by HCV infection in this population and may reflect an impaired liver function as well as an inadequate energy and nutritional intake. Their presence should alert internists about malnutrition as a complication in the clinical course of CLD.

Conclusions: Low nutritional parameters are present in patients with LC. The effectiveness of nutritional counselling and nutritional intervention in this group should be further evaluated.

V-105
THE EVALUATION OF INDICES RESULTING FROM HOSPITALIZATION IN A DEPARTMENT OF INTERNAL MEDICINE

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Objectives: The Charlson comorbidity index age adjusted (CCIaa) is frequently used like a measure of patient comorbidity. We describe in our study a validation of relationship between different comorbidites showed by patients admitted in an internal medicine department, using ICCaj scale, and mortality, duration of hospitalization and hospital re-admission rates.

Material and method: Observational, retrospective cross-cut analytical study, including all patients admitted in the Internal Medicine Department during five years (since 1/7/2005 to 30/6/2010). We calculated the CCIaa for each patient and the indices that showed the result of the admission (duration of hospitalization, hospital mortality, re-admission after 7 days and mortality index 30 days after discharge from hospital).

Results: We included 11211 patients, with median CCIaa 4.3 (± 2.5). The CCIaa was higher in patients who died during hospitalization (5.9 vs 4.0;$p < 0.001$), in readmitted patients after seven days (5.0 vs 4.0; $p < 0.001$), and in patients who died after 30 days after discharge (5.8 vs 4.0;$p < 0.001$). Time of hospitalization was proportional to CCIaa index (9.1 ± 11.5 days in patients with CCIaa < 2 vs 13.7 ± 13.5 days in patients with CCIaa > 7; $p < 0.001$). The different indices analyzed were directly proportional to stratified CCIaa index. In V stratified group the mortality index was 24.8%, the readmission rates was 9.0% and the mortality after 30 days of discharge was 7.4%.

Conclusions: The CCIaa index reflects the co-morbidity of our patients showing that it´s an important predictive index of duration and mortality during hospitalization, readmission rates after 7 days and mortality after 30 days after discharge. Patient´s

classification in an Internal Medicine Department with CCIaa index is an important predictor of result of hospitalized patients, that's why the authors suggest his utilization to show the admission complexity.

V-106
HOW TO REDUCE READMISSION IN COPD? GROUP FOLLOW UP VS CONTROL – 2011

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Objectives: To compare Readmission rates of discharged COPD patients (Group Follow up) from the Hospital, followed monthly telephonically by Hospitalists for 6 months and another Group of patients (Group Control) not being followed by hospitalists. We expect to reduce readmissions due to better pharmacological compliance and non-pharmacological measures and higher quality of care provided after better co-management monthly.

Material and method: In 2011, we asked our Medical Record Department to provide us all the 227 COPD patients discharged from July until December 2010. Randomly, 117 of them were followed telephonically monthly during 6 months (Group Follow up), the other 110 patients were Group Control. Each patient was followed by the same Internist. In the Group Follow up, 27 were excluded (9 died prior to inclusion, 9 were not available in the provided phone, 4 refused, 3 were non COPD, 2 repeated); thus, we surveyed 90 patients. In the Group Control, 10 were excluded for similar reasons. 100 were followed at the end of the 6 month period; they were not followed monthly.

Results: The patients characteristics are shown in another Poster and were similar in both Groups. Below we express the admissions the 6 months before the study and the following 6 months either with Follow up telephonically or not.

Discussion: After Hospital discharge of COPD patients, the transitional care and continuity of care recommends periodic follow up either by primary physicians or/and co-managed by Hospitalist. The better quality provided and patient well being should follow less readmissions for COPD reagudizations.

Conclusions: The monthly telephonic follow up after COPD discharge did not reduce readmissions (p = 0.8) the following 6 months compared with the ones not being followed. There is always a reduction after discharge comparing with the 6 months before de study.

V-107
ANALYSIS OF A SEQUENCE OF CASES OF ACE INHIBITORS-ASSOCIATED ANGIOEDEMA

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Objectives: To analyze the characteristics of patients diagnosed with ACE inhibitors-associated angioedema.

Material and method: Descriptive retrospective study. Patients diagnosed in 2010 with ACE inhibitors-associated angioedema in our hospital. Inclusion criteria: ACE inhibitor take previous to the episode, absence of family history of angioedema, concordant complement levels.

Results: Described in table 1.

Discussion: ACE inhibitors-associated angioedema has an incidence of 0.1-1%. It is due to a decrease in bradykinin metabolism by ACE. It is more frequent with the first doses. As in our case sequence, it shows orofacial location and episodes are rarely severe. It is more common in African Americans, over the age of 65 years, surgery, or trauma prior to head or neck, kidney disease and allergy.

Conclusions: 1 Angioedema is a rare adverse effect of ACE inhibitors. 2. Attacks usually show facial location. 3. Airway

Table (V-106)

	Admission previous 6 months	Readmission next 6 months
Group Follow up 90 patients	131 admissions	58 admissions – 11 deaths (55% reduction)*
Group Control 100 patients	121 admissions	52 admissions – 8 deaths (57% reduction)*

*p = 0.8

Table 1 (V-107)

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Sex. Age. Type ACE inhibitors Duration	Women, 47 Enalapril 4 years	Varon, 69 Enalapril	Women, 84 Enalapril 7 days	Women, 80 Captopril 5 hours	Women, 61 Enalapril 3 years	Varon, 61 Enalapril	Women, 73 Ramipril 7 days
Complement	C3, C4, C1, C1inh: normal Low Act.C1inh	C3, C4, C1q, C1inh: normal Low Act.C1inh	C3, C4, C1q, C1 inh and act.C1inh normal	C3, C4, C1q normal. Augmented C1 inh and act.C1	C3, C4, C1q and y C1 inh normal. Augmented Act.C1inh	C3, C4, C1q, C1 inh and act.C1inh normal	C3, C4, C1q, C1 inh and act.C1inh normal
Episodes Location	4 Face	1 Tongue, soft palate	2 Lip	1 Lip, tongue	1 Lip, soft, palate	1 Lip, tongue	1 Tongue
Complicated Treatment	No No	No Corticoide, antihistaminic, adrenaline	No No	No Corticoide	No Corticoide, antihistaminic	No Corticoide, antihistaminic	No Corticoide, antihistaminic

compromise is infrequent; null in our sequence of cases. 4. Suspension of treatment is curative.

V-108
EFFECTS OF SELENIUM SUPPLEMENTATION ON ETHANOL-INDUCED LIVER CHANGES IN A MURINE MODEL

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Objectives: Some observations suggest that oxidative damage play a major role in alcohol-mediated liver alterations. Selenium, a potent antioxidant, is decreased in alcoholics The aim of this work is to analyse if the supplementation with selenium may alter liver changes observed in a murine model fed ethanol and/or a 2% protein-containing diet, following the Lieber-DeCarli design.

Material and method: Adult male Sprague–Dawley rats were divided into 8 groups, which received the Lieber-DeCarli isocaloric diets: a control diet; a 36% ethanol-containing diet, a 2% protein-containing diet; and a 2% protein and 36% ethanol-containing diet; other similar four groups to which selenomethionine (1 mg/kg body weight) was added. After sacrifice (5 weeks later), the following histological parameters (proportion of liver fat, fibrosis, nuclear area and hepatocyte area of at least 20 pericentral and 20 periportal cells) were histomorphometrically assessed; liver and serum selenium were determined by atomic absorption spectrophotometry. Serum albumin, ASAT, ALAT, and liver glutathione peroxidase (GSH) activity and malondialdehyde (MDA) content were also deter-mined.

Results: Liver fat accumulation was significantly reduced in the selenium-treated animals ($p = 0.012$), which also showed significantly increased GSH activity ($p < 0.001$), and a nearly significant trend to decreased MDA levels ($p = 0.056$). Hepatocyte ballooning was also reduced in the selenium-treated animals ($p = 0.006$). Significant relationships were observed between liver selenium levels and GSH activity (Rho = 0.33; $p = 0.01$), and negative ones with hepatocyte ballooning (Rho = -0.27), liver MDA (Rho = -0.29 and weight loss during the experiment (Rho = -0.38, $p < 0.05$ in all cases). No effect was observed on liver fibrosis.

Discussion: Some observations suggest that oxidative damage play a major role in alcohol-mediated liver alterations. Selenium, a potent antioxidant, is decreased in alcoholics. GSH activity is strongly dependent on Se. In our study, GSH activity showed a positive relationship with liver selenium levels, leading to decreased peroxidation and hepatocyte damage, but had no effect on liver fibrosis.

Conclusions: Our results support the existence of a beneficial effect of selenium supplementation on ethanol and/or protein-deficiency induced liver steatosis, lipid peroxidation and antioxidant status, but not on liver fibrosis.

V-109
HEREDITARY HEMOCHROMATOSIS: A SERIES OF 59 CASES

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Objectives: Analyze clinical features and iron metabolism and overload in a sample of patients diagnosed of hereditary hemocromatosis (HH) in our hospital between January 2001 and December 2010.

Material and method: We conducted a descriptive a retrospective study of a simple of patients diagnosed of hereditary hemocromatosis (HH) in our hospital Hospital de Cabueñes (with a population of 300,000 inhabitants). When a mutation of the gen HFE was positive, the patient showed iron overload with high levels of ferritin or high transferrin saturation index and/or liver biopsy with typical changes the diagnosis of HH was done. We studied demographics, clinical, biochemical data and clinical course. Statistical Package for the Social Sciences (SPSS) was used for the analysis. Differences were significant when p value was < 0.05.

Results: Fifty nine were diagnosed with these criteria. Forty five were males (76.3%) and 14 m (23.7%) females. The mean age was 54 ± 16 years without significant differences. Homozygous C282Y mutation was the most frequent -49 (83.1%), followed by homozygous H63D in 2 (3.4%) and heterozygous C282Y-H63D in 8 (13.6%) patients. Concerning clinical data is remarkable that 16 patients (27%) complained arthralgias, 10 (17%) cardiomyopathies, 9 (15.5%) fatigue, 9 (15.5%) diabetes, 7 (11.9%) liver disease, and 4 (6.8%) hyperpigmentation. Twenty eight were asymptomatic. Ferritine levels were increased in 45 patients (76%), mean value 1207 ± 1,296 ng/ml. El transferrin saturation index was increased in 96.6% (57) patients, mean value 99 ± 34%. A story of alcohol abuse was collected only in 28 (47.5%) patients. Ethanol consumption was mild en 8 (28.6%), moderate in 16 (57.1%), and 4 (14.3%) patients referred high alcohol intake. Hepatitis virus serology was done in 42 (71%) patients. In 35 (83%) was negative and the others showed HCV chronic infection 2 (4.8%), HBV chronic infection 1 (2.4%) and 4 (9.5%) had HBV immunity. We investigated the relation among demographics, genotype, alcohol consumption, HCV & HBV infection and the level of iron overload, by using ferritine levels (high or normal) and transferrin saturation index (high or normal), and its values. It is remarkable the association between high ferritine levels (> 350 ng/mL) and male gender. Transferrin saturation index wasn´t significantly associated. Concerning ferritine levels we found a significant association with age -older than 45 years ($p = 0.027$), with genotype homozygous C282Y mutation ($p = 0.036$) and males ($p = 0.036$). When analyzing transferrin saturation index levels, we found a significant association with genotype homozygous C282Y mutation ($p < 0.001$) and alcohol consumption ($p = 0.029$).

Discussion: Clinical features, demographics and genotypes are similar to those previously published. We observed more asymptomatic patients due to the inclusion, in this study, of patients recruited through familiar screening of index cases diagnosed of hemocromatosis. Hereditary hemocromatosis is linked with high levels of genetic transmission, but associated with low levels of fenotipic expression. For an accurate and early diagnosis high level of suspicion is needed. Poblational screening is not recommended. Alteration of iron metabolism indexes (ferritin and transferrin saturation index) in males older than 45 years, associated with alcohol consumption are good markers of disease, and can help in the diagnosis of this entity.

Conclusions: 1. Our data is similar to previous published investigations.2. Accurate and quick diagnosis of this entity requires high level of suspicion, and males older than 45 years and with alcohol consumption should be immediately tested for iron overload.

V-110
MICRO ARN POLYMORPHISMS AND ALCOHOLISM

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Objectives: The aim of our study was to evaluate the prevalence of two micro-RNA polymorphisms (hsa-mir-196a2 and hsa-mir-146a) in a cohort of alcoholic patients to analyze their association with alcohol dependence and alcoholic liver disease.

Material and method: We conducted a case-control study including 308 alcoholic patients and 157 abstinent controls. Alcohol dependence DSM-IV criteria were applied to classify alcoholic patients as dependent or abusers. Diagnosis of alcoholic cirrhosis was made by hepatic biopsy or clinical criteria. DNA extraction was performed from a peripheral blood sample, by obtaining mononuclear cells and subsequent DNA purification and quantification. Allelic discrimination was performed by real-time PCR using TaqMan® SNP genotyping assays. Analyzed polymorphisms were: hsa-mir-146a C > G rs2910164 polymorphism and hsa-mir-196a2 C > T rs11614913 polymorphism. The relationship between each polymorphism and the presence of alcohol dependence or alcoholic cirrhosis was analyzed by the chi-square test, using Fisher's exact test when expected frequency was less than 5. SPSS statistical program version 18 was used. This work was supported by Grants GRS531/A/10 from Castilla-León Regional Government and PI10/01692 from Spanish Ministry of Science and Innovation and European Regional Development Fund "Una manera de hacer Europa".

Results: All alcoholic and non-alcoholic patients were male and mean age was 44.81 (SD = 11.54) years. Among alcoholics, 60% met alcohol dependence criteria and 33% of them had alcoholic liver cirrhosis. Genotype frequencies of mir-196a2 polymorphism were as follows: CC: 39.3%, CT: 49.6%, TT: 16.0% for alcoholics and: CC: 36.2%, CT: 52.6%, TT: 11.2% for controls (p = 0.190). No statistically significant differences were found when comparing cirrhotic patients (CC: 43.0%, CT + TT: 57.0%) with non-cirrhotic patients (CC: 37.0%, CT + TT: 63.0%) (p = 0.319) or when comparing alcohol dependent patients (CC: 50.0%, CT+TT: 50.0%) with alcohol abusers (CC: 34.0%, CT+TT: 66.0%) (p = 0.108). Genotype frequencies of mir-146a polymorphism were: GG: 51.5%, CG: 40.7%, CC: 7.8% for alcoholics and GG: 64.0%, CG: 29.0%, CC: 7.9% for controls (p = 0.024), and an association between the presence of allele C and alcoholism was found in our study (alcoholics: 48.5%, controls: 36%, p = 0.023). We did not found any statistically significant difference when comparing cirrhotic (GG: 55%, CG + CC: 45%) and non-cirrhotic patients (GG: 48.5%, CG + CC: 51.5%) (p = 0.511) or when comparing alcohol dependent patients (GG: 54.5%, CG + CC: 45.5%) with alcohol abusers (GG: 48.5%, CG+CC: 51.5%) (p = 0.460).

Discussion: hs-mir-146a and hs-mir-196a2 polymorphism have been associated with different diseases, such as gastrointestinal cancer. The expression of these micro-RNAs regulates NFKB-mediated inflammatory response pathways activation and its association with liver fibrosis among alcoholic patients has been previously suggested. Mir-146a expression is also associated with inflammatory response in glial brain cells of alcoholic patients.

Conclusions: Our study demonstrates for the first time an association between mir-146a rs2910164 polymorphism and alcoholism. Further studies are necessary to apply these findings in the early diagnosis and individualized treatment of these patients.

V-113
OXYGEN THERAPY: AN UNDERVALUED PRESCRIPTION

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Objectives: Oxygen (O_2) is essential for the treatment of hypoxemic respiratory failure and is often used in medical wards. However, several studies have shown that the procedure is not always followed correctly and thoroughly, and the potential risks are underestimated. The main objective of this prospective study was to evaluate oxygen therapy procedures in an Internal Medicine Service, to identify the main errors and to plan strategies to solve them.

Material and method: The audit was carried out between February 21 and June 6, 2012, with checks performed on one randomly chosen day each week. All patients admitted to the Internal Medicine Ward 1 with oxygen therapy prescription or under administration of oxygen were included and data collected regarding the initial assessment, prescription, monitoring and administration of oxygen. The procedures were compared to criteria established by the British Thoracic Society in "BTS guideline for emergency oxygen use in adult patients".

Results: 257 episodes of oxygen therapy were audited. It was medically prescribed in 95% of cases, but only 68% were initially assessed for their oxygen saturation (FiO_2) by pulse oximetry or blood gases sample. The most common type of prescription was by fixed dose (53%), but none defined all the required parameters. The most frequently missing information was that relating to the duration of therapy (97%) and the delivery system (59%). All patients were monitored and in 60% of the cases this corresponded to what had been prescribed. Only 60% of patients were administered oxygen with a fixed-dose prescription; the flow rates and delivery systems were different from those that had been prescribed in 51% and 34% of cases, respectively. Of the 114 patients with prescriptions by oxygen target saturation, 89% presented values in the defined range. In the 14 patients without a medical prescription for oxygen therapy, the main reasons to explain this was that it was been given according to verbal instructions by the doctor (36%) and on the initiative of the nursing staff due to low SPO_2 (36%). In 28% of cases there was no reason given.

Discussion: The results show that the procedures for oxygen therapy continue to present serious omissions. The main problems were incomplete fixed dose prescriptions and the administration of flow rates which were different from those prescribed. Prescriptions for oxygen target saturation, defined by BTS as the most appropriate, remain below 50%, although the results presented here are better than those of recently published studies.

Conclusions: The need to evaluate and improve the quality of oxygen therapy is emphasized.

V-115
SPLENECTOMY IN UNCOMMON MEDICAL DISORDERS

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Objectives: Non-traumatic, non-hematologic disorders are infrequent indications for splenectomy that are usually grouped in a long list of very rare medical conditions. The purpose of this study was to analyze these uncommon non-surgical disorders in which a splenectomy was indicated.

Material and method: A series of 152 non-traumatic splenectomies performed between 1996 and 2010 in a tertiary care center was retrospectively studied. Hematologic diseases, benign and malign neoplasms, and portal hypertension disorders, were excluded. The remaining 12 patients were analyzed. Clinical data, indication for splenectomy, histological findings, morbidity and mortality from this sample were recorded.

Results: Out of the 12 patients, 9 were male and 3 were female, with mean age of 44.3 years (SD ± 20.3). The indications for surgery were fever of unknown origen and/or splenomegaly and/or hypersplenism (9 cases), spontaneous splenic rupture (2 cases), and peritonitis (1 case). The spleen was enlarged in 6 patients (50%) and 9 patients (75%) were diagnosed of hyperesplenism. A infectious disease was diagnosed in 6 patients: splenic abscess due to Salmonella (1 case), unspecific splenic abscess (1 case), Leishmaniasis (1 case), Chronic granulomatous disease (1 case), Mycotic splenic artery aneurysm (1 case), and splenic atypical mycobacterial disease (1 case). Another 6 patients were included in a miscelaneous group: amyloidosis (1 case), non-specific lymphoid hyperplasia (3 cases), disseminated lupus erythematosus (1 case), and Wegener's granulomatosis (1 case). The mean size of the removed specimen was 16.2 cm (SD ± 5.7), and the mean weight 573.8 g (SD ± 573.9). The overall postoperative complications rate was 50% (6 patients). One patient required an invasive procedure, and 2 patients required reoperation. The operative mortality was 8% (1 patient diagnosed of amyloidosis). All the remaining patients were discharged from hospital in good conditions.

Discussion: Only a few studies have evaluated the findings after a splenectomy by medical conditions excluding hematologic disorders. In fact, splenectomy may be indicated in a wide range of infrequent medical disorders, that should be taken into account and it may be the only method to achieve a diagnosis in a patient with fever of unknown origin. In some occasions spontaneous splenic rupture may be the first manifestation of the subjacent disease.

Conclusions: A wide range of diagnosis can be performed by splenectomy. In spite of a relatively high morbidity of the procedure in this subgroup of patients, the results in the survivors are excellent.

V-116
MINORITARY DISEASE UNIT IN THE SETTING OF PRIVATE HOSPITAL: FIRST YEARS OF EXPERIENCE

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Objectives: Report the experience of a minoritary disease unit in the setting of a private hospital.

Material and method: Review of clinical records of patients where minoritary disease unit has intervened in any aspect.

Results: Since specific unit for management of minoritary diseases has been created: 1. Ehrlich reactive and Hoch test have been established for acute porphiric crisis screening. 2. Urine porphirine determination has been standardized. 3. Plasma amonium levels has been introduced and standarized in emergency laboratory determinations. 4. Plasma amonium measurement has been introduced in the methabolic coma of uncertain origin protocol in ICU. 5. A screening protocol for lysosomal disease in newborns has been started in cooperation with pediatry department. 6. In patients affected of hypertrophic myocardiopathy of unknown origin, early stroke o haemathologic alteracions, has been standarizaed screening for Fabry disease. 7. These changes in protocols and working strategies have lead to diagnosis of an ornitine-transcarbamilase defficiency, 2 cases of acute porphyria. 8. Five cases of mastocytosis had been molecular diagnosis. 9. Two families with Birt-Hogg-Dubbe syndrome have been identified.

Discussion: There have been twelve sessions with other clinical services by increasing awareness of rare diseases. We have worked on networking with other centers for metabolic and genetic. We created node knowledge of rare diseases in an environment that previously did not exist.

Conclusions: The knowledge of rare diseases early diagnosis increases. The existence of reference units in rare diseases is also needed in private centers.

V-117
SCREENING OF CELIAC DISEASE IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To assess the main consultation reasons before starting a Celiac Disease(CD)screening in Internal Medicine (IM). To analyze the CD diagnosis process carried out in Internal Medicine.

Material and method: We performed a retrospective study of patients who have been determined HLA and/or Antitransglutaminase IgA, Antireticulin Ig A, Antigliadin IgA and IgG, Antiendomysium IgA, for CD screening in IM Department of "Lozano Blesa" HCU (Zaragoza), during 2011.We looked trough laboratory and clinical data of these patients. We excluded patients who had been previously diagnosed with CD.

Results: The total patients were 160. 97 were women (60.62%) and 63 men (39.37%). The oldest was 91 and the youngest 16, and a mean age of 55,122 patients (76.25%) were older than 40. Serology was requested to 145 patients (90.62%); 47 of them lacked the IgA antitransglutaminase determination. HLA was studied in 74 patients (46.25%) and was the only study in 15 patients (9.37%). 52 patients (32.5%) underwent gastroscopy and duodenal biopsy.26 patients met CD diagnosis criteria by Marsh classification. Only two, were serologically positive.

Discussion: Diagnosis of CD are increasing in adulthood. Our study is consistent with this hypothesis, as the suspicion of CD diagnosis in our department is high in adults older than 50 years. In this group, atypical forms are common, as it was in these 26 patients, with compatible biopsy to CD according to Marsh classification. Screening CD, includes an initial serologic testing, followed by duodenal biopsy confirmation. In our patients, serology testing was carried out in 90.62%, and biopsy confirmation in 32.5%. HLA determination is useful in patients with negative serology and high clinical suspicion, due to its high negative predictive value for diagnosing CD. In our study we determined HLA to 74 patients (46.25%), and this data was probably somewhat elevated.

Conclusions: 1. Consultation reasons which developed starting CD screening in our IM department are varied, being iron-deficiency anemia the predominant, and later, other atypical manifestations as vitamin B12 deficiency and hypertransaminasemia. 2. The mean age of patients studied and diagnosed is 55 years, most of them as paucisymptomatic or latent CD, which is a late diagnosis of this disease.

V-119
EARLY DETECTION PROGRAM OF PATIENTS WITH HIGH-RISK IN CONVENTIONAL HOSPITALIZATION AREA WITH THE AID OF A COMPUTER SYSTEM

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Objectives: To describe a program of early detection and intervention of patients at high risk with the help of a owner computer application, in cooperation with the intensive care department within the project "ICU without walls".

Material and method: We design a descriptive study between July 2011 to April 2012. On business days, daily computer generated reports were produced of certain analytical data from the laboratory studies which have been altered according to predefined values. This data was requested by the hospital from the previous 24 hours. These analytical parameters are those considered "relevant" for the early detection of diseases in which intervention time is critical, such as sepsis, acute coronary syndrome and respiratory distress (Troponin I > 0.3 µg/L, pH < 7.30, pCO_2 > 60 mmHg, platelet count < 100,000/µL, lactate > 3 mmol/l). Subsequently, the partners of internal medicine and intensive care review the medical records of patients detected by the software who selected those considered at probable high risk on clinical records. However, it should be in accordance with the physician in charge of the patient who decides which one of these "interventions" is appropriate: confirmation of clinical stability, close monitoring in the next hours, therapy adjustment, diagnostic approach, early admission to ICU, or limitation the life-sustaining treatment (LLST).

Results: During the study period, the software detected 1081 analytical alterations, corresponding to 872 patients. After reviewing the medical records, 210 cases were selected and were joined by 33 patients detected by clinical data. 113 (46.5%) were females with a mean age of 66.4 years (range 15 to 92) with an average SOFA 3.3. The majority of the patients were in the emergency room (61.3%) followed by conventional hospitalization in 89 patients (36.6%). The analytical data altered was: pCO_2 in 60 cases, with a mean value 69.3 (range 60 to 105), pH in 38 cases, with mean value 7.25 (range 7.08 to 7.29), platelets in 49 cases with mean value 62,000 (3,000-99,000); troponin I in 39 cases, with mean value 1.8 (range 0.34 to 12.2), and lactate in 57 cases with mean value 4.8 (range 1.4 to 12) The most frequent pathology found was: respiratory failure in 79 patients (32.5%), followed by sepsis in 68 patients (28%), cardiological in 25 patients (10.3%), abdominal in 25 patients (10.3%), neurological in 21 patients (8.7%), hematological in 12 patients (4.9%), renal in 11 patients (4.5%), metabolic in 1 patient (0.4%) and shock in 1 patient (0.4%). The "intervention" was: to confirm clinical stability in 152 cases, medical follow-up during an on call doctor in 42 cases, modification of treatment in 28 cases, diagnostic approach in 54 cases, early admission to the ICU in 12 cases, and LLST decision in 60 patients. 19 patients died (7.8%) but more than half (12 to 63.1%) had previously agreed LLST.

Discussion: Early identification and treatment of patients at high risk is of great importance in diseases such as sepsis, coronary disease or respiratory failure. This task is not always easy and it is important to use all resources available to us. There are advantages associated with electronic medical records and the development of specific software to detect high risk markers, in conjunction with the close collaboration between services. In our case it would be desirable to have sufficient infrastructure to extend the work described to all days of week.

Conclusions: Close collaboration between intensive care and internal medicine in a program as described can contribute to improving healthcare quality during hospitalization. This reduces morbidity and mortality, through better management of healthcare resources.

V-120
DOES THE EDUCATIONAL LEVEL INFLUENCE THE PATIENTS SATISFACTION?

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Objectives: To determine if the educational level is most likely to influence satisfaction with care in Internal Medicine hospitalizations.

Material and method: The study was based on a sample survey, using a structured questionnaire developed for this purpose, with the Likert attitude scale. The study sample consists of all the patients discharged from an Internal Medicine ward between 1st and 30th September 2011. The different closed response items had a evaluation between 1 and 5 (1 for very bad and 5 for very good). The educational level was stratified based in schooling: basic (until 9th grade), secondary (until 12nd grade) and higher (university degree). The items evaluated were the health professionals, the image and facilities of the department, as well as food, transports and diagnostic exams. The data were analyzed in a quantitative perspective, using the SPSS (Statistical Package for the Social Sciences), version 19.

Results: During the period of time covered by the study, there were 284 episodes of discharge from our department; the answer rate was 78% and the average age was 63 years, with 51.3% of male patients. The users with the basic educational level answered in average above 4 for all the items giving higher scores to the majority of items, comparing with the other groups. There were statistical differences regarding the evaluation of transports ($p = 0.045$), food ($p = 0.001$) and security staff ($p = 0.003$), being the lower scores given by the users with higher schooling.

Discussion: Several aspects are described as being most likely to influence satisfaction with health care provision, and the educational level seems to be one of them. The evidence suggests that users with lower educational levels presents more satisfaction with health care.

Conclusions: The educational level may influence the users satisfaction regarding health care provision and their opinion can be used as an indicator for monitoring the quality of health services.

V-121
CHARACTERISTICS OF CELIAC DISEASE IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To evaluate the clinical, immunological and histologic diagnosis process of Celiac Disease (CD) in an Internal Medicine (IM) department.

Material and method: We performed a descriptive study based on patients who met histologic diagnostic criteria of CD in the duodenal biopsy according to Marsh classification. The data were obtained through the review of serologic tests (antigliadin,

antiendomysium, antireticulin and antitransglutaminase) and/or genetic study (HLA) forCD screening, requested from the IM Department of "Lozano Blesa" Hospital (Zaragoza) during 2011.We obtained 160 patients considered suspected cases. We excluded patients who had been diagnosed as CD, previously to this period. Duodenal biopsy results, were classified according to Marsh classification, choosing the higher degree.

Results: The total patients diagnosed with CD was 26. 15 were women (57.69%) and 9 men (34.61%). The youngest was 18 and the oldest 83, with a mean age of 50.5 years. Half of patients (13) were under 50. The main consulting reason was extraintestinal (anemia) and the second one was intestinal (diarrhea). Serologic testing was requested in all patients; 2 of them (7.69%) had autoantibodies high titers. HLA was determined in 23 patients (88.46%):18 were HLA DQ2 and/or DQ 8. These 26 patients had histologic criteria of CD according to Marsh classification. 24 patients (92.30%) fulfilled criteria of pauci-symptomatic or silent forms. Gluten-free diet (GFD) was prescribed to 21 patients and after 6 months follow-up, 17 showed clinical improvement and 15 analytical improvement.

Discussion: CD is in frequently diagnosed in adulthood in these days, as in our study, in which 26 adult patients (50% older than 50) present diagnostic criteria for CD according to the latest protocols. The proven histological intestinal lesion remains the gold standard for diagnosing CD, although classically Marsh grade I was considered a latent form and not associated with symptoms or complications. However, recent evidences show that this form can present them with the same frequency as the atrophy villous forms. Pauci-symptomatic and Latent CD forms are defined as seronegative forms with atypical symptoms with villous atrophy or mild enteropathy respectively. In our study, 92.30% of the patients fulfilled criteria of pauci-symptomatic CD, who probably would not have been diagnosed decades ago. Currently diagnosis of these CD forms have risen. That is consistent with data obtained in our study. According to literature DQ2/DQ8 HLA is associated with CD in 95% of cases and it is possible to discard it, if we have another HLA, because of its high negative predictive value. 6 of 26 patients (23.07%) presented different HLA DQ 2 nor DQ8, which supports the hypothesis that some of these patients labeled as CD, are not a really gluten-sensitive enteropathy, but other enteropathy, or maybe we are in the way of accurate knowledge of the pathophysiology of this entity.

Conclusions: 1. Half of patients, with histologic criteria of CD in duodenal biopsy, are over 50 years 2. 92.30% are pauci-symptomatic or latent CD forms 3. An important percentage of patients in our study have HLA unrelated to CD.

V-122
PATIENT COMPARATIVE STUDY ADMITTED ON CRITICAL CARE UNIT (CCU) REFERRED FROM MEDICAL AREA (MA) RELATED TO PATIENTS REFERRED FROM SURGERY AREA (SA) ON AS SPECIALIZED HOSPITAL FROM SAS

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Objectives: Identify patients clinical profile referred from MA admitted on CCU difference with SA referred patients during 9 months between 2011-2012.

Material and method: We included patients admitted on CCU during that period and referred from MA/QA. Variables studied: age, sex, reason for admission, hospital stay time, cardiovascular risk factors (CVRF), associated pathology, deaths as well as diagnosis discharge and destiny service. We used χ^2 test by SPSS statistical program to analyze results, and design a descriptive chart study.

Results: 105 patients (330 admitted on ICU). The 74.3% referred from MA, average age of 62, men 75.6%. Average hospitalization time was 3.9 days proceeding from Cardiology (C) and Internal Medicine (IM)16.7%, transfer from another CCU 19.2%, Interhospital transfer 10.3%, Neumology (NM) and Digestive (D) 9%, Nephrology (NF) 7.7%. Admission Diagnosis was Acute Coronary Syndrome (ACS) 32.1%; Respiratory failure (RF) 9% followed by PTCA, stroke, surgery complication, severe acute pancreatitis all 5.1% and 3.1% serious NAC among other. CCU average time stay 6.7 days, 32.1% died. 21.8% were smokers, 6.4% out-smokers. Drinkers 21.8% and out drinkers 3.8%. Suffered DM 38.5%, HBP28.2% and DLPM 24.4%. 47.4% were sufferingfrom Myocardial Ischemia (MI), chronic obstructive pulmonary disease (COPD) 44.9%, Heart Failure 23.1%, CRI 12.8%. Obesity 11.5%. Most prevalent Discharge diagnosis was MI 32%, Stroke 9%; PTCA complicated 7.7%, Respiratory Failure 7.7%, severe pneumonia 5.1%, Anoxic encephalopathy, severe acute pancreatitis, and Urinary sepsis and Hypovolemic shock by HDB 3.8%. Target services were C 29.1%, IM 16.4%, transfer to other ICU 23.7%, transfer Hospital and NM 5.5%, D, Neurology and Hematology 3.6%.22.9% (24) were from QA, with an average age of 63 men 74.1%. Time hospitalization average on floor of 7.81 days, being original service Surgery (S) 63% followed by Urology (UR) on 14.8%, Gynecology (GI) 11.1%, otorhinolaryngology (ORL) 7.4% and Traumatology (TR) 3.7%. The reason for admission on CCU was on 48.1% a complicated surgery, sepsis 18.5%, RI 14.8%, MI7.4%. Average time spent on ICU 5.89 days with 14.8% mortality. 25.9% of sample smoke or did smoke before. Drinkers 14.8% and out-drinkers 7.4%. DM 33.3%, 14% DLPM and HBP 22.2%. Obesity 11.1%, COPD 37%, MI 33.3%, 25.9% suffered from oncologic pathology and heart failure 22.2%. Diagnosis discharge was surgery complication on 37% followed by abdominal sepsis, resulting 14.8% and 7.4% severe pneumonia, among others. Most prevalent service discharge was S 60.9%, IM 13% GI 8.7% followed by C, ORL, TR, and UR in a 4.3%.

Discussion: Patients from MA have a longer stay on CCU, higher probability of death (χ^2). Usually men, 62 years old, most from S, C, and IM, due secundary surgical complications, MI and severe respiratory failure. Return to MA although they come from QA 13% based on need for holistic care of these patients.

Conclusions: It is increasing the necessity to perform a comprehensive patient assessment on base to complications and pluripathology appearance. This comorbidity is disbalanced which, at time, makes necessary a treatment on ICU. Internal medicine professional based on his global view is able to deal clinical management and prevention of complications appeared on these patients.

V-123
ACUTE POISONING BY PARAQUAT. A 30-YEAR MULTICENTER STUDY

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Objectives: To describe our series of patients poisoned by paraquat that have been treated at the hospitals of the province of Almería in the last 30 years.

Material and method: A retrospective study developed between 1982 and 2011 in the three public hospitals of the province of Almeria: Torrecárdenas (Almería), Poniente (El Ejido) and La Inmaculada (Huércal-Overa). We included all patients treated at

the 3 hospitals for acute poisoning by paraquat. The diagnosis was made by the contact proved with the toxic and the presence of symptoms and signs attributable to it.

Results: During the 30-year study, 47 patients were admitted to our hospitals for acute poisoning by paraquat. 68% of those poisoned was males. The middle ages were 37.2 years. The route of entry of the toxin was digestive in all the cases. The poisoning was voluntary in 42 patients (89%); of these patients, 62% had a psychiatric history. The most frequent symptoms were: abdominal pain (95%), vomiting (94%), sore throat (78%) and dyspnea (63%). The most frequent complications were: respiratory failure (96%), renal failure (70%) and liver failure (57%). 42 patients died (89%). The most common cause of the death was the multiorganic failure (73%). The average time being the ingestion of toxic and the death was 42 hours. 5 survivors patients developed pulmonary fibrosis.

Discussion: Paraquat is an herbicide that has been used often in agricultural areas, particularly in the cultures under plastic of Almeria (Spain). Due to its high toxicity to humans, the commercialization of paraquat was prohibited inside the area of the European Union in July, 2007. The route of entry of paraquat in humans is the digestive tract, and symptoms of poisoning are located preferably in this area. The intoxication with high doses of toxic causes death within hours. Poisoning with less toxic lead the patient to respiratory failure and multiple organ dysfunction and subsequently death. The mortality of paraqat poisoning over 90% in all series.

Conclusions: 1) We present the largest case series of acute poisoning by paraquat in Europe. 2) The poisoning was digestive in all cases, and with suicide attempt in 89%. 3) The mortality of the series was 89%, being the most frequent common cause of death the multiorganic failure. 4) The 5 surviving patients developed pulmonary fibrosis.

V-124
A COMPARISON OF MISCONDUCT POLICIES AT TOP-RANKED PEER-REVIEWED BIOMEDICAL JOURNALS

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Objectives: We determined the research misconduct (MSC) policies among top-ranked biomedical journals from different disciplines.

Material and method: We selected 399 peer-reviewed journals of biomedicine and life science specialties from 27 categories and included the 15 top-rated journals of each category rated by the 2010 Impact Factor (IF) published by the Institute for Scientific Information Journal Citation Reports. No title overlapped between categories. We only included original research-publishing journals. Two different authors independently reviewed each journal website to find out any relevant information to MSC including definitions, procedures for responding (PR) to MSC allegations and the use of antiplagiarism software (APS). We also analyzed whether journals belonged to any Editorial Association (EA) with MSC guidelines (e.g., COPE), professional associations and publishers. Data were analyzed using the SAS 9.1 statistical system.

Results: 69.9% of journals mentioned the term 'misconduct' in their website and 35.1% provided a definition of MSC. Specific definitions of MSC types included falsification (F) (28.3%), fabrication (FB) (26.1%), plagiarism (P) (56.1%), duplication (D) (60.7%), and image manipulation (IM) (38.6%). 44.9% journals had PR and 28.1% claimed to use APS. 59.9% of all journals belonged to any EA, with 68.9% of European journals belonging to any EA vs 53.2% of US journals ($p = 0.004$). Considering the EA separately, these differences were only significant for COPE ($p < 0.001$). When comparing journals belonging or not to some EA, we found significant differences with regard to mention and definition of MSC, F, FB, P, D as well as PR, IM and APS ($p < 0.05$ in all). When considering the EA separately, the differences were significant for ICMJE, COPE and ORI, except for APS, where differences were significant for COPE only ($p = 0.007$). When comparing US vs European journals, there were no significant differences regarding any of the variables analyzed except for APS, which was more commonly used by European journals ($p = 0.014$). For IM, 38.6% of journals considered it as MSC. 71.4% of journals with an IM policy vs 52.9% without it belonged to some EA ($p < 0.001$), with significant differences for ICMJE, COPE and ORI. The most represented publisher among the journals analyzed was Elsevier (22.6% of all journals). 67.5% clinical vs 45.7% basic journals belonged to some EA ($p < 0.001$), with significant differences for ICMJE ($p < 0.001$). 51.6% basic vs 37.4% clinical journals had PR ($p = 0.018$), with significant differences for retraction ($p = 0.008$) but not for expression of concern ($p = 0.816$). Also, 41.9% basic vs 30.9% clinical journals included IM as a MSC policy but differences were not significant ($p = 0.058$).

Discussion: A high proportion of the analyzed journals included some reference to MSC but only 35.1% of journals provided a detailed definition, with 28.3% and 26.1% including F and FB definitions in their websites, respectively. This finding contrasts with the relatively high proportion of journals having PR (almost a half of them). Although we found differences in the way journals adhere to the EA recommendations depending on the category, region, publisher, contents (basic vs clinical) or belonging or not to an EA, we did not find differences regarding the IF. Moreover, complying with single EA principles does not ensure that all recommendations to avoid MSC are accomplished.

Conclusions: MSC policies among peer-reviewed journals vary widely. The fact of belonging or not to an EA is the most relevant factor accounting for the existence of MSC policies. The finding that only about 35% journals define MSC and 45% have PR means that a big effort remains to be done to ameliorate MSC policies and their application by most biomedical journals.

V-125
PREVALENCE OF ATRIAL FIBRILLATION IN GENERAL POPULATION AND AMONGST 2011 HOSPITAL ADMISSIONS IN THE AREA OF MARINA ALTA

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Objectives: Description of the prevalence of atrial fibrillation (AF) in the community of our Health Area of 170,000 inhabitants. Analysis of the prevalence of AF as Principal or secondary diagnosis in all 2011 medical admissions and comparative analysis of age, comorbidities, mortality and lenght of stay.

Material and method: Data for diagnosis of AF in the community was extracted from the Primary Care Electronic Medical Record (EMR) in our area. For admissions the data base was the Minimum Basic Data Set (MBDS) using ICD-9-CM code for atrial fibrillation to identify it as principal or secondary diagnosis both in absolute figures and percentages. They were compared for sex, age, morbidity, mortality and length-of-stay.

Results: Our Health Area attends 171,348 citizens. The diagnosis of AF is registered in the EMR in 2,173 (1.27%). In 2011 there were 4,033 medical admissions in our Hospital. 15.8% (639) of patients admitted had AF, 103 (2.6%) as principal diagnosis and 536 (13.3%) as a comorbidity Median age for all admissions was 71 (IQR 59-80). Patients with AF were older than those without it (78, IQR 72-83) (Mann-Whitney, $p < 0.001$). 41.84% were women. There was no significant difference in proportions of AF for gender (chi square,

p = 0.196). Death occurred in 7.47% of the analyzed admissions. FA as a comorbidity was more frequent in admissions resulting in death than in the rest (18.3% vs 12.9%) (chi square, p = 0.008). The median length-of-stay for those without AF as a comorbidity was 5 days (IQR 3-8) while in those with AF it was longer, 6 days (IQR 3-9.5) (Mann-Whitney, p < 0.001). The main principal diagnoses associated to AF as a comorbidity were: heart failure (15.5%), occlusion of cerebral arteries (10.1%) and ischemic cardiopathy (9.0%; for acute myocardial infarction: 3.7%). The relative risk for admission in the population with AF was 11.9 (95%CI: 10.9-13.1) when compared to the population without AF comorbidity.

Conclusions: 1. AF prevalence in our Area is slightly superior to that estimated in the Spanish general population (0.4-1%), perhaps due to our greater population over 65 years of age. 2. We can identify its association with aging and the great number of admissions in which AF is present either as the principal cause or as a comorbidity and how AF accompanies a longer length-of-stay and a higher mortality. 3. We can consider AF as a high risk marker for hospital admission and therefore insist in the assessment of its correct management and consider its inclusion as a criterion in our program for chronic patient management.

V-126
USE OF A MARKER OF LIPID PEROXIDATION IN BONE-MUSCULAR DISEASE

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Objectives: The aim of the study was determining the lipidic peroxidation in patients diagnosed bone-muscular pathology.

Material and method: A total of 77 subjects were recruited for the study. A group (n = 55) consisted of outpatients with bone-muscular pathology diagnosed by functional and clinical variables in a Rehabilitation Clinic. This was compared with a control group (n = 22) consisted of healthy subjects. Blood was drawn to obtain plasma and its lipid peroxide content was determined as thiobarbituric acid-reactive substances (TBARS) (Orrenius et al, 1977). Plasma protein content was measured according to Lowry (1951) using bovine serum albumin as standard. Student's t test for independent samples was used to determine significant differences between groups, using the SPSS software version 19.0.

Results: There was a significantly greater lipid peroxidation (p = 0.000) in the subjects with bone-muscular pathology regarding with healthy subjects.

Discussion: Results suggest that the free radical process of lipid peroxidation could be involved in the pathogenesis of bone-muscular disease. In fact this pathology is commonly associated with inflammation, a process which rise free radicals levels promoting lipid peroxidation (Rosanna and Salvatore, 2012) Moreover oxidized lipids induce cytokines expression (Berliner et al., 1995; Van Lenten et al., 2001) which, together other factors, might inhibit osteoblastic differentiation and increase osteoclastic activity. At this way it produces bone loss which usually worse with the disease (Frye et al, 1992; Parhami et al, 1997; Manolagas et al, 2000).

Conclusions: Our results indicate a possible greater oxidative stress associated with the bone-muscular disease which could indicate acute inflammatory activity.

V-127
AUTHORSHIP CRITERIA, CONFLICTS OF INTEREST DISCLOSURES AND GHOSTWRITING IN PEER-REVIEWED BIOMEDICAL JOURNALS: CURRENT SITUATION

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Objectives: We investigated how top-ranked peer-reviewed biomedical journals handle authorship criteria (ASC), conflicts of interest disclosures (CoI-DS) of authors and editors and ghostwriting (GW).

Material and method: We performed a detailed study of websites of the 15 top-ranked journals according to the 2010 Impact Factor (IF) published by the Institute for Scientific Information Journal Citation Reports of 27 different categories in biomedicine and life sciences. No title overlapped between categories. Journals publishing reviews only were excluded. 399 journals were chosen to evaluate their fulfillment of the requirements established by ICMJE for ASC, COPE for CoI-DS (financial, non-financial and editors' disclosures) and ORI for GW. Other data such as publisher, type of contents (clinical vs basic), belonging to an Editorial Association (EA) (ICMJE, COPE, ORI, CSE, WAME and others) and editorial office region were also collected. Since Elsevier was the most represented publisher among the journals reviewed (22.6%), we compared Elsevier journals with the rest of publishers. Each journal was independently reviewed by two authors using a standardized data-collection form. Data was statistically analyzed with SAS 9.1 statistical system.

Results: 78.9% journals mentioned ASC in their website, with significant differences regarding the IF (6.857 for those mentioning ASC vs 5.219 for those not mentioning ASC; p = 0.015). However, only 51.9% journals required the three established ICMJE ASC. 239 (59.9%) journals belonged to any EA; among them, 64% included the three ICMJE ASC, while only 33.5% of those not belonging to an EA did so (p < 0.001). The same was true when considering separately the EA for ICMJE (p < 0.001), COPE (p < 0.001), ORI (p = 0.018) and WAME (p < 0.001), but not for CSE and other associations. When comparing US-published journals vs those published in Europe, no differences were found (p = 1.01). ASC were more frequently mentioned in Elsevier journals than in the rest of publishers (90.0% vs 75.7%; p < 0.03), but no differences were found when considering the three ICMJE ASC (p = 0.375). 67.5% of clinical vs 40.6% of basic journals belonging to any EA required the three ICMJE ASC (p < 0.001). 91.2% journals mentioned CoI-DS, but only 38.8% included editors' disclosures. Differences were found between journals belonging and not belonging to an EA for financial, non-financial and editors' CoI-DS (p < 0.001 in the three cases) and significant differences remained when considering EA separately for ICMJE, COPE and ORI (p < 0.001 in all). No differences were found between journals published in Europe and US. Elsevier journals included more commonly financial (p = 0.038), non-financial (p = 0.040) and editors CoI-DS (p = 0.001) than the rest. Likewise, clinical journals included more commonly financial (p = 0.010), non-financial (p < 0.001) and editors CoI- DS than basic ones (p = 0.036).

Discussion: Only 16.8% and 9.5% journals mentioned and defined GW, respectively. Just 4% of journals had methods to detect it, and 5.8% had specific procedures to deal with it. Eight (29.63%) categories of the 27 did not even have a single journal defining GW. Journals with procedures for responding to GW more commonly belonged to ICMJE (p < 0.001), COPE (< 0.001), and CSE (p = 0.003). Likewise, journals whose ethical guidelines were provided by the publisher had more commonly procedures for responding than those whose publisher did not have guidelines (p = 0.001).

Conclusions: Top-ranked biomedical journals fail to achieve the desirable degree of recommendations provided by main EA with regard to ASC, CoI-DS and GW.

V-128
ASSOCIATION OF ATRIAL FIBRILLATION WITH ADMISSIONS DUE TO ISCHAEMIC CEREBROVASCULAR DISEASE AND HEART FAILURE IN 2011 IN THE AREA OF MARINA ALTA

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Objectives: Description of admissions due to ischaemic stroke or Heart failure associated to atrial fibrillation (AF) in our health area in 2011.

Material and method: For admissions the data base source was the Minimum Basic Data Set (MBDS). We used a predefined set of codes (ICD-9-CM) to identify both admissions for ischaemic stroke (433-434-435) and heart failure (428) and then we identified the presence of AF as a comorbidity expressing its frequency both in absolute figures and percentages.

Results: From all medical admissions in study the absolute counts (percentage) proportions were as follows: Cerebral arteries occlusion (434): 206 (5.15%). Precerebral arteries occlusion or stenosis (433): 55 (1.37%). Transient ischaemic attack (435): 48 (1.20%). Heart failure (428): 215 (5.37%). AF as a comorbidity was much more common in patients with ischaemic stroke codified as cerebral arteries occlusion (26.21%) than in the rest of admissions for other causes (12.62%): OR 2.46 (95%CI 1.78-3.40). This strong association was not seen for transient ischaemic attack (OR 1.11; 95%CI 0.50-2.49) or precerebral arteries occlusion or stenosis (OR 0.79; 95%CI 0.34-1.86). AF was also much more common in patients with heart failure (38.60%) than in the admissions due to other causes (11.88%): OR 4.66 (3.48-6.24). Once we adjusted the associations by age, gender and Charlson comorbidity index, we confirmed an independent relation between admissions due to cerebral arteries occlusion and AF as comorbidity (OR 2.42; 95%CI 1.72-3.40) as well as for admissions due to heart failure and AF (OR 4.07; 95%CI 3.00-5.52).

Conclusions: 1. There is a strong association between cerebral arteries occlusion as cause of admission and AF comorbidity. We failed to find such an association for transient ischaemic attack or precerebral occlusion. We consider necessary to audit the medical records for a deeper study of this strokes and review the adequacy of the anticoagulant therapy 2. There was also a strong association between heart failure admission and AF. 3. Both associations were quite similar after adjustment by age, gender and comorbidity score.

V-129
RISK OF MALNUTRITION RELATED TO OTHER COMORBIDITIES IN PATIENTS WITH HIP FRACTURE

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Objectives: Hip fracture is a prevalent cause of hospitalization on elderly patients that usually is associated to other comorbidities. Malnutrition in older adults with hip fracture is associated with increased complications, mortality, disability and dependence on others. The aim of the current study was to examine the relationship between the risk of malnutrition in our population of elderly patients with hip fracture and age, cognitive and functional status, comorbidity and long term mortality.

Material and method: 225 patients with hip fracture that were admitted in Traumatology Department from de 1st of March 2010 to the 28th February 2011 were studied retrospectively. They were evaluated daily by Internal Medicine Department. The mean stay was 13.11 days (± 3.8 SD), mean age was 83.4 years (± 9.3 SD), Charlson score was 2.02 (± 1.6 SD) and the mean of medicaments patients took was 4.20 ± 1.467 SD. We calculated the risk of malnutrition using the parameters of the CONUT® program (albumine, lymphocytes and cholesterol), classifying them in no risk (0-1 points), low (2-4), moderate (5-8) and high risk (9-12).

Results: 169 patients (75.11%) were at risk of malnutrition. Those patients were older, had higher Charlson and ASA score and lower Barthel score. They had more decompensations of their chronic diseases, more transfusions, confusional states and the mean of exitus within 12 months was higher. Demographic, clinical, functional and outcomes of different groups are detailed in Table 1.

Discussion: Aging is associated with physical, mental, social and environmental changes which may contribute to the risk of malnutrition. The worldwide increase in hip fractures among the elderly poses a major challenge to the health care system and society. The importance of early detection of the risk of malnutrition and aggressive intervention are very important, because treatment of malnutrition has been shown to improve hospitalization outcomes surgical elderly patients, with decreased mortality, morbidity and length of hospital stay.

Conclusions: In our sample the prevalence of patients at risk of malnutrition is higher. Elderly patients admitted with hip fracture and high or moderate risk of malnutrition had more nosocomial

Table 1 (V-128)

Description	Code	Total Cases	Cases with AF comorbidity (%)	OR
Cerebral arteries occlusion	434	206 (5.15)	54 (26.21)	2.46; 95%CI 1.78-3.40
Precerebral arterial occlusion or stenosis	433	55 (1.37)	6 (10.91)	0.79; 95%CI 0.34-1.86
Transient Ischaemic attack	435	48 (1.20)	7 (14.58)	1.11; 95%CI 0.50-2.49
Heart failure	428	215 (5.37)	83 (38.60)	4.66; 95%CI 3.48-6.24

Table 1 (V-129) Malnutrition and other risk factors

	No risk (n: 56)	Low risk (n: 108)	Moderate and high risk (n: 61)
Age	80.7 (± 11.2)	83.9 (± 8.74)	85.9 (± 7.72)
Charlson	1.78 (± 2.08)	1.93 (± 1.03)	2.34 (± 1.41)
Barthel	81.96 (± 21.37)	67.57 (± 29.30)	62.94 (± 24.40)
ASA	2.83 (± 0.62)	3.17 (± 0.57)	3.30 (± 0.53)
Exitus in 12 months	8 (14.28%)	25 (23.14%)	19 (31.14%)
Decompensation of associated comorbidities	23 (41.07%)	60 (55.5%)	35 (57.37%)

infection, confusional states, transfusions, decompensation of its associated comorbidities and deceased after twelve months. Patients with low cognitive and functional status assessed by Charlson, Barthel and ASA indices are in worse nutritional conditions.

V-130
AGING POPULATION AND DEMAND FOR HOSPITAL ADMISSIONS ACCORDING TO AGE IN A DEPARTMENT OF INTERNAL MEDICINE, GENERAL HOSPITAL

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Objectives: To assess the demand for hospital admission and therefore part of health care consumption in the population over age.

Material and method: We divided the total number of patients analyzed (hospital admissions during the years 2009, 2010 and 2011) in two groups: older and younger than 65 years, analyzing numbers, percentage, average age, average stay and GRD weight. Want to know if the age of 65 years is still valid to study the medical use in the elderly. Thus the results have been compared with those obtained studying the sick in 3 groups: under 65 years, patients aged 65-79 and finally those aged > 80 years.

Results: Of all hospital admissions analyzed (n = 9241) in 2009-2011 at the Department of Internal Medicine HURH, 1650 (18.03%) had < 65 years and their mean age was 52.75 ± 16.32. The % of patients over 65 years was 82.15 (n = 7591) with a mean age of 80.25 ± 10.35. The ratio > 65/< 65 years was 4.60. When analyzing the data that measure the health consumer, such as average stay and GRD weight after hospital discharge, it is found that both the average stay and the average weight of the DRGs are higher with significant differences in patients older ($p < 0.001$). By grouping patients according to age in three strata, we found that patients between 65 and 79 years represented 39.6% of revenue over 65 years (n = 2,930) with a mean age of 72.55 ± 7.82). Patients aged over 80 years represent 61.4% of patients over 65 years (n = 4,661) with a mean age of 85.39 ± 5.31. The average stay of two groups of patients aged more high (between 65-79 years vs > 80) was similar in both age groups (10.15 days and 10.45 days), being the average weight of the DRGs of patients older than 80 years slightly higher in the older group (1.82 vs 1.78).

Conclusions: In relation to hospital admissions, the population over age 65 consume more health resources than the population under 65 years. From the data obtained from the population over 65 years, no difference between the two groups of older populations, presented consumption rates in health related hospital admissions in relation to average stay and DRG weight therefore appears in the group of studied patients age 65 years continues to be valid to study the impact of aging on health care consumption.

V-131
EPIDEMIOLOGICAL CHANGES OF COPD PATIENTS ADMITTED TO A TERTIARY HOSPITAL OVER LAST TEN YEARS

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Objectives: To study the characteristics in COPD patients admitted to Internal Medicine and to compare epidemiologic and clinic changes between two samples separated each other with a gap of ten years.

Material and method: We performed a retrospective descriptive study with COPD patients admitted to an Internal Medicine department in a tertiary care hospital from 1st January to 31st December of years 2000 and 2010. We used two randomized samples with one hundred patients each. We included COPD patients 18 years old or more admitted for acute exacerbation. In this study we evaluated the epidemiologic characteristic of the patients, for which we made a protocol. We used SPSS program to data analysis.

Results: The mean age was 78.49 years old in sample of year 2000 and 79.79 in 2010 (p 0.23). Regarding gender distribution, the percentage of men was 77% in 2000 and 73% in 2010 (p 0.29). The income had an average stay of 10.98 in 2000 and 13.48 in 2010 (p 0.12). The average of previous income in the last year, was 1.12 and 0.98 respectively, of which, 9% and 11% was ICU admissions. In both years approximately 30% have two or more exacerbations. The 96% of patients had comorbidities in 2000 compared with 99% in 2010, which have following distribution respectively: hypertension 50%-61% (p 0.056), diabetes mellitus 23%–43% (p 0.01), dyslipidemia 15%-22% (p 0.16), renal dysfunction 36%-29%, acute myocardial infarction 17%-41% (p 0.3), atrial fibrillation 37%-35%, heart failure 38-23%, Cor pulmonale 20%-25%, depression 7%-9%, obesity 4%-25% (p 0.02), malnutrition 29%-23% (p 0.05), cerebrovascular disease 17%-24% (p 0.7), cognitive impairment 14%-10%, peripheral vascular disease 14%-23% (p 0.17), osteoporosis 4%-13% (p 0.02), hepatopathy 7%-4%, gastro esophageal reflux 9%-13% and peptic ulcer 22%-15%. In 2000, 25% of patients were smokers and 39% was former smokers. In 2010, 19% was smokers and 34% was ex-smokers. The phenotypes were 30% of exacerbators in 2000 compared with 26% in 2010 (p 0.4). The emphysematous phenotype had a frequency of 2% in 2000 and 14% in 2010 (p 0.009). The overlap phenotype was 3% in 2000 and 7% in 2010 (p 0.41).

Discussion: It´s important to remember that this is a retrospective study and some data have been lost, which can influence in the results. The mean age was slightly higher in 2010 as expected by population aging. The frequency of women is higher in 2010; it is probably due to the increase of the smoking women. Among the comorbidities, in both years we observed high prevalence of vascular disease, it is related with the disease itself and cigarettes consumed, which could be a confusion factor. It's important remarking the high percentage of diabetic and obese people in 2010 with statistically significant difference, and that could be secondary to changing lifestyle. In 2010, there were less number of patients with malnutrition, although emphysematous phenotype is increased. Also is remarkable high prevalence of osteoporosis probably because in last years, it became more important, and now it is more studied. In this study the phenotypes were suggested with clinical and radiologic data, because in 2000 the phenotypes were not protocoled. However we observed that the most patients were exacerbator.

Conclusions: Epidemiological data of COPD have been changing over the years. It may be due to lifestyles changes. This change can lead a different therapeutic attitude, which should include the treatment of the comorbidities. We considered that patients with COPD require a multidisciplinary approach, attending to the comorbidities and side effects of treatment.

V-132
PROFITABILITY OF CAPSULE ENDOSCOPY IN THE ETIOLOGICAL DIAGNOSIS OF IRON DEFICIENCY ANEMIA IN THE CAPSULE ENDOSCOPY UNIT OF UNIVERSITY HOSPITAL COMPLEX OF BADAJOZ IN A PERIOD OF TWO YEARS

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Objectives: Retrospective study of the levels of hemoglobin and the findings of capsule endoscopy in patients with iron deficiency anemia resistant to oral iron therapy in the last 2 years (March 2010-February 2012) in the Capsule Endoscopy Unit of University Hospital Complex of Badajoz.

Material and method: The Capsule Endoscopy Unit services the whole province of Badajoz. We reviewed the clinical records of all the patients who underwent a capsule endoscopy, and we selected those that included a complete exploration (clear view of the intestine, with a view of the cecum), iron deficiency anemia with Hb levels < 12 mg/dl, ruled-out celiac disease and complete colonoscopy and gastroscopy without lesions that show potential risk of bleeding. The patients were grouped into "mild anemia", when Hb > 10 or "severe anemia" when Hb ≥ 10. Also, the findings of the capsule endoscopy were classified as "no findings", "lesions with low risk of bleeding", "lesions with medium risk of bleeding", "lesions with high risk of bleeding", "lesion with signs of bleeding" and "other lesions". Cases of angiectasis were included in the previous groups according to their number, size and aspect. The statistics were made with SPSS.18 for the analysis, Student's t-test for independent variables and chi-squared test for dependent variables.

Results: Out of the 124 cases analyzed, 71 met the requirements and were selected. In this group, 57.7% were men with an average age of 67.92 years and 42.3 were women with an average age of 62.43 years (total average: 65.6 years). 43.7% of the patients presented "severe anemia", and no significant differences were found regarding sex (p = 0.91). 27.1% were receiving non-steroidal anti-inflammatory drugs (NSAIDs) and 22.9% used anticoagulants. We found 21.1% of normal capsule endoscopies (93.3% in mild anemia), 15.5% of the patients showed lesions with low risk of bleeding (81% in mild anemia), 14.1% showed lesions with medium risk of bleeding (70% in mild anemia), 9.9% showed lesions with high risk of bleeding (100% in severe anemia), 25.4% showed lesions with signs of bleeding (77.8% in severe anemia) and 14.1% showed other non-bleeding lesions as the only finding (100% in mild anemia). Significant differences were found regarding the distribution of the severity of anemia in the different groups (p < 0.001). NSAIDs and anticoagulant use showed no significant differences. The most common lesion with risk of bleeding in the 4 groups was angiectasis, in 91.5% of the cases, and the rest were ulcerated lesions (5.6%) and erosions (2.8%). Statistically significant differences between sexes were only found in the group of lesions with high risk of bleeding.

Discussion: According to our results, it seems reasonable to assume that the capsule endoscopy is more profitable in patients with low Hb levels, both in the diagnosis and in the planning of possible therapies, such as enteroscopy or thalidomide (which is a promising and less invasive alternative, especially in pluripathological patients). The long-term clinical impact of lesions with low-medium risk of bleeding still needs to be analyzed, as well as the possibility that other chronic pathologies may contribute to maintain or aggravate the anemia.

Conclusions: Patients who underwent a capsule endoscopy in our center usually present lesions with risk of bleeding, and a significant percentage shows lesions with signs of bleeding without influence of NSAIDs or anticoagulants. Most of the lesions with high risk of bleeding and signs of bleeding are found in patients with the lowest levels of Hb, while capsule endoscopies without findings are those of patients whose Hb levels are close to normal.

V-133
ADULT HOSPITAL ADMISSION IN SPAIN: A COMPARATIVE ANALYSIS OF IMMIGRANT AND SPANISH CITIZENS

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Objectives: The number of immigrants in Spain in the last decade has increased dramatically. At this point there are few studies that have evaluated the impact of this migratory phenomenon on the hospitalization. The purpose of this study was to investigate differences in hospitalization between immigrants and the resident population during the year 2011 in of a public hospital in the city of Alicante (Spain).

Material and method: Cross-sectional study of 27,956 hospitalization episodes by patients > 14 years attending during the year 2011 in a public teaching hospital. Hospital admissions of immigrants were compared to those of Spanish-born population. The study was based on the hospital discharge data collected by the Hospital General Universitario de Alicante Information System.

Results: From 27,957 hospitalization episodes, the country of born was available in 27,737 visits. From 27,737 episodes, 3.027 (19.9%) were immigrant. The main country was Morocco (17.7%) follow by Colombia (8.4%) and Ecuador (8.3%) and United Kingdom (7.7%). The median of age was less in immigrant (42 [RIC: 32-60]) than autochthonous (62 [42-75] (p < 0.001). The overall percentage of hospitalization in the group aged over 65 years was 19.9% in immigrant and 45.0% in autochthonous (p < 0.001). The sex female was higher in immigrant (60.8%) than autochthonous (51%) (p < 0.001). The admission in obstetric service, gynecology service and neurosurgery service was more common in immigrant (24.6%, 3.8% and 3.1%) than autochthonous (10.6%; 2.4% and 2.4%) (p < 0.01). However, the admission in unit of short stay, pneumology, cardiology, and traumatology was less common in immigrant (4.5%, 3.9%, 3.6%, and 3.3%) than in Spanish-born population (6.6%, 6.0%, 5.7% and 4.1%) (p < 0.01). Hospitalization discharges for some specific main group of diagnosis: "pregnancy, childbirth and puerperium", "female genitourinary system", and "blood and blood-forming organs" were higher for immigrants than for residents (24.7% vs 10.6%; 3.5 vs 2.2% and 2.9% vs 1.8%; p < 0.01). And hospitalization discharge for "circulatory system", "respiratory system" and "musculoskeletal system" and connective tissue" as main group of diagnosis were less for immigrant than for autochthonous (10.6% vs 16.7%, 6.8% vs 10.8, 6.7% vs 8.4%; p < 0.01). The mortality of admission rate was less in immigrant (1.9%) than Spaniards (3.9%) (p < 0.001). The median days of admission were less in immigrant (2.24 [RIC: 1.5-4.5]) than autochthonous (3.0 [RIC:1.5-6.0]).

Discussion: Deliveries and gynecological problems for females were identified as critical areas for migrants' health, in which public health interventions may be promoted.

Conclusions: As the presence of foreigners becomes an established phenomenon, it is important to evaluate their epidemiological profile for hospitalization, develop instruments to monitor and fulfill their specific health needs and plan health services for a multi-ethnic population.

V-134
ELEVATION OF CARBOHYDRATE ANTIGEN 15.3 (CA 15.3) IN PATIENTS WITH VITAMIN B12 DEFICIENCY

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Objectives: To describe the epidemiological characteristics of patients with vitamin B12 deficiency and elevated plasma tumor marker CA 15.3.

Material and method: We reviewed the medical records of patients who presented in their blood tests elevated levels of CA 15.3 and deficiency of vitamin B12 in 2011 in Internal Medicine, Hospital General Universitario de Ciudad Real. We collected the following variables: sex, age, diagnosis, hemoglobin (Hb), mean corpuscular volume (MCV), lactate dehydrogenase (LDH) levels of B12 and CA 15.3 plasma, if gastroscopy and mammography had been performed, and the treatment received. All analytical values were determined before and after treatment.

Results: 6 patients, who were included in the checked blood tests, had a high value of CA 15.3 and a decrease of vitamin B12. The age range was between 47 and 81. Of these patients, 5 were women. Three were diagnosed with pernicious anemia, and 3 with megaloblastic anemia. At diagnosis the analytical values collected were, vitamin B12 (68-135 pg/ml), Hb (7.5 to 12.4 g/dl), MCV (93.5 to 146 fl), LDH (256-4,822 U/ml). The tumor marker CA 15.3 was between 54.1 and 161 U/ml (reference values in our laboratory < 32 U/ml). Two female patients underwent mammography during the study of anemia, the results were negative for malignancy. All patients were treated with vitamin B12, 5 of them intramuscularly and 1 oral. After treatment the levels of B12 and tumor marker were normalized.

Discussion: The CA 15.3 is a glycoprotein commonly used in the diagnosis and monitoring of breast cancer. It can also be found elevated in other tumors (ovarian, lung, pancreas and liver) and non-oncological diseases such as chronic liver disease, sarcoidosis, tuberculosis, lupus erythematosus or thyroid dysfunction. After reviewing the available literature on the subject, we found very few studies on the association between the elevation of CA 15.3 and B12 deficiency. This tumor marker recognizes epitopes of MUC1 glicoprotein. This glycoprotein is not only expressed in tumor cells but also in hematopoietic cells. Some authors suggest that the elevation of the marker in patients with B12 deficiency may be associated with apoptosis of erythroblasts due to ineffective erythropoiesis in these patients. Our results are similar to those referenced in other studies. The patients had no underlying tumor pathology, and after correction of B12 levels tumor marker values were normalized.

Conclusions: The increase of CA 15.3 can be seen in patients with B12 deficiency. This is not related to the presence of underlying malignancy. Altered laboratory values are normalized after correcting the vitamin deficiency.

V-135
STUDY OF CLINICAL ASPECTS AND CRITERIONS OF AN AGGRESSIVE BEHAVIOUR IN GASTROINTESTINAL STROMAL TUMOURS IN OUR AREA

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Objectives: To analyse the appearance of this kind of tumours, the factors related to their aggressive behaviour and the role that the complementary tests play in its diagnosis. Gastrointestinal stromal tumours (GISTs) are the most common mesenchymal neoplasms of the gastrointestinal tract although they constitute only 0.1-3% of gastrointestinal tumours. The interest in these tumours has been increased recently due to its malignancy and different risk and prognosis factors.

Material and method: A retrospective observational study. The pathology reports of GIST within the last five years in the hospitals Juan Ramón Jiménez and Infanta Elena were reviewed. Clinical aspects, endoscopies, histology and immunohistochemical expression were reviewed.-Statistical study through the program SPSS 20.0 for Windows.

Results: A total of 28 GIST were reviewed. Two of them were excluded because the medical histories of the patients were not completed. Therefore 26 records were reviewed (11 females, 15 males; average age 60.8 years). The most common site of location was the stomach (50%; 13 patients) The most common symptom was high digestive bleeding (50%; 13/26). The bleeding was located in the stomach in 80% of patients in this group. The complementary test which helped the most for the diagnosis was the CT scan which was used in 18 patients with an objective result. The second method with the highest effectiveness in diagnosis was the endoscopy of the GI tract which helped to diagnose 92% of patients (12/13). In all the cases it showed a high submucosal lesion with a smooth surface, which sometimes showed ulcers and erosions. We report here 1/12 cases of GISTs that was diagnosed by endoscopic biopsy (8.33%). In the rest of the study surgery was necessary to get a definitive histologic diagnosis. 87% of tumours express CD 117, 76.8% CD 34 and only a 29% express S100. Regarding the aggressive behaviour in the neoplasm, it showed a higher risk when they were located out of the stomach with a OR 3.5; 95%CI (1.085-11.29) without any differences between genre or age groups younger or older than 65 years.

Conclusions: The GISTs occurred in patients with a median age of 60 years without genre discrimination. High digestive bleeding is the most common symptom. The most common site of location is the stomach, in which there is a less aggressive behaviour. The endoscopy is a valid tool in its study mainly in those cases which have high bleeding. Nevertheless the endoscopic biopsy does not get material enough for its definitive diagnosis. We have not found any differences related to its aggressive behaviour with regards to gender or age.

V-137
IN-HOSPITAL MORTALITY IN AN INTERNAL MEDICINE DEPARTMENT OF A TERTIARY UNIVERSITY HOSPITAL

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Objectives: Previous studies have mentioned the importance of mortality as an indicator of clinical activity. The aim of this study was to analyse in-hospital mortality and associated clinical and epidemiological factors of the patients admitted to the Internal Medicine (IM) department during a one year period, in a tertiary Universitary Hospital.

Material and method: We carried out a retrospective analysis of the admissions registered in IM in our hospital during 2011 using the minimum basic set of data (in Spanish: "Conjunto Mínimo Básico de Datos": CMBD) database. We collected information about clinical characteristics of the patients, diagnostic information and global mortality and compared these results, establishing two different

Table 1 (V-137). Demographic characteristics of patients admitted in Internal Medicine

	Total	Death	Alive	Statistical significance
Sex% male	52.9	54.6	52.7	0.227
Average age (years)	74.7	81.6	73.9	< 0.001
Emergency admitted (%)	95.8	98	95.5	0.003
Number of diagnosis	9.3	9.6	9.3	0.01
Average weight of DRG	2.1	3	2.1	< 0.001
Average stay (days)	13.4	13.01	13.4	< 0.001

groups depending on whether death occurred during the hospital stay or not. We compared age, sex, Charlson index, condition prior admission (emergency department, scheduled admission, etc), number of diagnosis, and Diagnosis Related Group (DRG). We used the SPSS tool for the analysis of the results (chi squared and t-Student for independent samples test). We assumed statistical significance for $p < 0.05$.

Results: There were 5,559 patients admitted to the IM department of the Hospital 12 Octubre in Madrid in the year 2011, of which 47.05% were women, with mean age of 74.7 years old (SD 14.6). The mean weight of DRG was 2.1 (SD 2.5), and the mean stay 13.3 days (SD 11). The average number of final diagnosis in the discharge reports were 9.3. 95.8% of patients were admitted through the emergency department (ED). The overall mortality of the sample was 9.2% (509 patients). Within the group of deceased, 45.4% were women and the mean age was 81.6 years old. There was an average of 13 days stay with a mean weight of DRG of 3. 98% of the patients were admitted through the ED and the average number of final diagnosis in the discharge reports was 9.6. Comparing the characteristics of the two subgroups of patients (deceased and alive) mortality was significantly associated with the type of admission (through the ER or scheduled), mean age, mean stay and mean weigh of DRG (table 1). Among the 509 deceased, 21.6% were ≥ 90 years old. This age group showed association with a greater mortality ($p < 0.0001$). The most prevalent DRGs were: "Simple pneumonia and other respiratory disorders" 726 patients (13.1%), "Heart failure (HF) and arrhythmia" 461 patients (8.6%), and "HF and shock", 365 patients (6.5%). The DRGs that show higher mortality were "HF and arrhythmia" (11.3%), "stroke" (14.8%), "other CNS disorders" (34%), "septicemia" (33.7%), and "hepatobiliary and pancreatic disorders" (17.2%).

Conclusions: Patients admitted to the Internal Medicine department have a high overall mortality. This could probably be explained by the patients' characteristics: elderly patients, with multiple comorbidities and who are frequently admitted through the emergency department in a worse clinical situation than other admission regimes.

V-138
CLINICAL CHARACTERISTICS OF A FAMILY AFFECTED VON HIPPEL-LINDAU IN SEGOVIA

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Objectives: Von Hippel-Lindau's disease (VHLD) is an infrequent and genetic pathology, so it is habitual to find the cases grouped in families. The inheritance is autosomal dominant and is characterized for abnormal angiogenesis and later, the appearance of diverse tumors affecting diverse organs, already be benign or malignant, in early ages. Our aim is to study the affected persons of EVHL in the province of Segovia.

Material and method: There were checked the clinical histories of the patients diagnosed of EVHL and confirmed by genetic study, finally 2 cases being included.

Results: We found only one family affected of VHLD in the province of Segovia, with two sympathetic brothers. Inside the family an uncle (renal and retinal disease), three cousins (cerebellum, retinal and spine disease) and a sister (optical nerve affection) suffer the disease. Our patients were diagnosed from his infancy and being demonstrated in the genetic study a great delection of the gene VHL. The 28-year-old brothers have retinal angiomas in the right eye, which has been treated with laser and supports normal visual. The small one of the brothers, 24-year-old of age, presents also retinal angiomas, that produces amaurosis of the right eye. But in addition he has a pancreatic cyst of stable size in 1.2 cm. And hemangioblastomas of small size (5 mm) in fundamental cone and spinal marrow to level of C5. In the last clinical control it is observed a mass in the left testicle of 1 cm of size, not painful and mobile, hanging of completing study to reject epididymis cistoadenoma.

Discussion: VHLD is a infrequent pathology that is related to the mutation in the suppressing VHL oncogene, located in the short arm of the chromosome 3 (3p25-26). This mutation is present in one of every 36000 births and is inherited from form autosomal dominant by complete penetration but variable expressiveness. The initial manifestations of the disease can be given to any age, but it is more frequent that it happens concerning 26 years. The clinical manifestations come determined by the appearance of diverse tumors, both benign and malignant, there are described hemangioblastomas in nervous central system, retinian angiomas, carcinomas of renal cells, hemangiomas and adenomas of kidney, multicentral cysts of clear cells, feocromocitomas, adenomas and tumors neuroendocrinos of the pancreas and papillary cistoadenomas of the epididymis and broad ligament. The affectation more frequent is the renal one, specially the carcinoma of clear cells in up to 75% of the cases, and in 10% they are present at the diagnosis. For this motive and for the possibility of developing new tumors, there is obligatory the periodic vigilance of these patients of for life. For the diagnosis the genetic study is necessary, and it has to be suspected in those patients that presents various typical tumors or a tumor and the familiar precedent. In our concrete case, the patients with VHLD are young patients and retinal angiomas, coming even to the total blindness. None of them suffers renal affectation, and his principal reason of alarm is the appearance of affectation of nervous central system. None of two patients has just now active treatment and periodic controls are kept.

Conclusions: It is necessary to suspect this pathology when there are VHLD's familiar precedents or there takes place clinical typical affectation. The survival and the quality of life of the patients with VHLD has improved in the last years and owes to the precocious diagnosis of small and asymptomatic tumors, as well as the specify and aggressive treatment of other complications like renal insufficiency.

V-139
PULMONARY DISEASES: EXPERIENCE OF AN INTERNAL MEDICINE DEPARTMENT OF A PRIMARY NON UNIVERSITY HOSPITAL

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Objectives: Pulmonary diseases are responsible for a significant percentage of admissions and deaths in an internal medicine department particularly in those hospitals who lack a pneumology department. The objective of this work was to characterize the patients with pulmonary diseases admitted in the nurseries of an internal medicine department during the year 2011.

Material and method: Observational retrospective study of patients admitted to a internal medicine nursery and having pulmonary diseases as first diagnosis. The items evaluated were age, gender, nº of days of hospital stay, the prevalence of various nosological entities, namely the airways diseases, pneumonias, other infectious diseases, lung cancer, pleural and interstitial diseases and pulmonary thromboembolism among others, and the outcome.

Results: During the study period there were 1,510 admissions, including 187 reinternments and corresponding to 1,349 patients. The lung pathology was responsible for 32.6% of admissions compared with 12.8% of cardiology, 12.9% nephrology, 11.4% of gastroenterological and neurological 14.3%. With regard to patients with lung pathology a total of 431 patients with pulmonary diseases as first diagnosis were admitted. There were 61 reinternments, thus totalising 492 admissions. The mean age was 76 years, the male gender accounting for 59.35%. The average nº of hospital stay was 11.04 days which was identical when compared to the total number of stay of patients in the department and a mortality of 15.77% which was slightly higher when compared to the average of the department (11.93%). The community acquired pneumonias topped the list with 61.8% of admissions and mortality of 19.4%, followed by airways diseases with 26.2% and a mortality of 2.3%. The lung cancer with 1.8% of admission rate had a 22.2% of mortality.

Discussion: Internal medicine is, in its composition, a subset of other specialties; however the prevalence of admission is not homogeneous. In this study, and in various others papers published, it is quite clear that the respiratory diseases are more prevalent when compared to other organs or systems pathologies. This evidence has to be taken to consideration in the structural organization of the departments as well as in the training programmes of residents of internal medicine.

Conclusions: In 2011 about a third of patients admitted in this internal medicine nursery had a pulmonary disease as its first diagnosis and a mortality rate superior to the average of the department. The community acquired pneumonia had a higher rate of admissions with roughly 20% of deaths. Although the percentage of airways diseases was quite high the mortality was low. The opposite was verified regarding the lung cancer with a low rate of admissions but a high mortality. These numbers are highly suggestive of importance of pulmonary pathology in internal medicine departments in hospital who lack a pulmonology department and should be considered in the residency training programs.

V-140
CLINICAL PRESENTATION AND RISK FACTORS OF HEPATOCELLULAR CARCINOMA IN SAUDI ARABIA; SINGLE CENTER EXPERIENCE

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Objectives: To identify pattern of presentation of hepatocellular carcinoma at King Abdullaziz Medical City in Riyadh (KAMC-Riyadh). To identify the most frequent underlying liver disease among these cases. To determine the demographic and clinical presentation differences of hepatocellular carcinoma. To estimate the prevalence of viral and non viral cause of liver disease among hepatocellular carcinoma cases.

Material and method: Study Area/Setting: This study conducted in King abdullaziz Medical city (KAMC-Riyadh) data collected from charts of hepatocellular carcinoma cases diagnosed between January 2009 and September 2011). Inclusion criteria: 1. All adult patients above 18 years including male and females diagnosed to have hepatocellular carcinoma based on the Saudi gastroenterology association guidelines. 2. Diagnostic criteria of HCC according to Saudi gastroenterology association guidelines as following (one criteria enough to diagnose HCC): Pathological diagnosis of HCC, or Cirrhotic liver, with lesion larger than 1 cm in diameter and one imaging modality (dynamic CT-scan or MR) confirms early arterial enhancement and venous washout of the lesion.

Results: Total of 226 charts were included. The median age at detection of HCC was 65.5 years, with male predominant (71%). Viral hepatitis was most common cause of underlying chronic liver disease particularly hepatitis C virus (HCV) infection (48.7%) and hepatitis B virus (HBV) infection (25.2%). Forty-eight percent of hepatocellular carcinoma were asymptomatic. Both abdominal pain and abdominal distension were present in 52%, 27% of the patients respectively. At the time of diagnosis, 37.1% had three lesions or more (multi-nodular tumours). Most of our patients presented with CHILD score of A (63.3% of case). Relation between symptoms at time of presentation and liver enzymes abnormalities, tumor size, vascular invasion and portal vein thrombosis was statistically significant (p value < .05).

Discussion: Viral hepatitis is the most common underlying etiology around one-third of cases present with advance disease symptomatic cases usually tend to have advanced disease. Diagnosis is usually made during routine screening.

Conclusions: We need to intense HCC screening in chronic liver disease to discover the disease in early stage and also increase awareness between physician and patient about HCC.

V-141
PROJECT TUTOR'S COMPETENCE MAP

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Objectives: The resident's tutor has a key role in the organization and working of MIR program, although he does not receive vocational guidance and teacher training. To define the skills profile of the resident's tutor is important to developing the attributes (knowledge, skills and attitudes) that allow them to improve performance of the role as tutor. Objective: To improve and promote the teaching-learning process of residents, we are focusing on competencies and developing the profile of the "ideal tutor".

Material and method: The project develops skills of the tutors in 4 phases: 1. An anonymous survey was sent to senior residents (20

residents) gathering information about the tutor. The questionnaire contains 15 questions relating to the tutor in 4 blocks of content: teaching attitudes, professional attitudes, tutor's attitude toward resident. 2. All the tutors of the center identify the core competencies of the tutor by open discussion in a meeting. 3. The list of tutor's competencies and definition is developed through teamwork formed by 6 tutors over 10 meetings. Each of the competencies is defined and graduate with levels of increasing competence. 4. The list of skills is validated by all tutor. 5. Competence profile of resident tutor: A questionnaire was sent to all tutors to graduate (1-4) the level of each of the competencies in the effective tutor.

Results: The competency profile is organized into three dimensions: professional and global dimension, the individual dimension and the relational or social dimension. It was graduated minimum, adequate, prominent and outstanding. To dominate a certain level means dominating the previous levels. After the surveys of residents, the meeting of the tutors and work in the group of tutors, 10 core competencies for tutors were selected and identified: A. Professional skills: A.1. Focus on quality, A.2. Professional ethics, A.3. Teaching ability and motivation, A4. Planning and organization, A.5. Goal-oriented. B. Personal skills: B.1. Emotional management, B.2. Initiative, B.3 Flexibility and management of change. C. Skills relational C.1. Internal Communication,C2. Development of teamwork. After the surveys the map of competencies of efficient tutors was: Professional ethics (4), Teaching ability and motivation (4), Encouraging Teamwork (4), Internal communication (3), Adaptation Flexibility (3), Achievement orientation (3), Planning and organization (3), Initiative (3), Quality orientation (3).

Discussion: The profile of tutor competence constitutes a decalogue of competence that are identified by easily observable and measurable behaviors. The most important skills that define an effective tutor is professional ethics, teaching ability and motivation, emotional management and promotion of team work. Less important are internal communication, flexibility, goal-orientation, planning, initiative and quality orientation. This will determine the best tutor practices for resident's training and serve as targets for tutors.

Table 1 (V-141)

Competence	Mean	SD	Final level
Professional ethics	3.75	0.55	4
Teaching ability and motivation	3.70	0.47	4
Emotional management	3.50	0.51	4
Encouraging teamwork	3.50	0.61	4
Internal communication	3.45	0.6	3
Adaptation flexibility	3.30	0.57	3

V-142
LACTIC ACIDOSIS SECONDARY TO TREATMENT WITH BIGUANIDES: SITUATION IN THE HEALTH AREA OF ZAMORA

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Objectives: Biguanides are drugs used for the treatment of diabetes mellitus. In Spain metformin is the only biguanide marketed. Lactic acidosis is the principal adverse effect that can occur generally develop in association to an overdose or the presence of certain concurrent factors: kidney failure, heart failure, liver failure, tisular hypoxia, sepsis or infectious process, alcoholism, concurrent making drugs, iodinated contrast using. We won't to know the cases of lactic acidosis secondary to treatment with metformin in our Complex Care.

Material and method: Retrospective, observational study of patients admitted in CAZA (Complejo Asistencial of Zamora) with the diagnosis of lactic acidosis secondary to treatment with metformin during the last six years. We reviewed the medical records and analyzed the following: age, sex, previous pathologies, previous treatment, days of admission, medical service of admission, gasometric data, final diagnosis and treatment to discharge.

Results: We found a total of nine cases, 4 men and 5 women, with a range of age from 45 to 86 years and average of 71 years. They were admitted Internal Medicine (4 patients), Nephrology (3 cases), Endocrinology (2 cases). Two cases of admitted in Nephrology were evaluated for Endocrinology too. The length of the stay was from 3 to 39 days with a mean length of stay of 14 days. Twenty two percent of patients had cardiovascular risk factor, 22% had previous cardiac pathology, 33% had both of them, 11% had other factors and 11% had only antecedent of treatment with metformin. Fifty five percent of cases had only treatment with metformin; 45% have metformin and other oral antidiabetic. The cause of admission was in 4 cases kidney failure, in 3 cases infectious process, 1 case with heart failure and a patient with inadequate dose of metformin. Two cases had the antecedent of iodinated contrast using. The average gasometric data was: pH 7.17, pCO_2 39, HCO_3^- 17 and lactic acid 9.83. Metformin was suspended in all the cases. In 4 patients was changed for other oral antidiabetic. In 4 patients insulin was the final treatment. A case didn't require hypoglycaemic treatment.

Discussion: The lactic acidosis was the principal adverse effect of treatment with metformin. In our revision the incidence is low. The main admission service was Internal Medicine with a mean length of stay of 14 days. In only one case they were not others concurrent factors. The principal cause of admission was renal failure followed by infectious processes. In tow cases there was the antecedent of iodinated contrast using. The blood gases were variables. Metformin was suspended in all the cases, with different treatments at discharge.

Conclusions: 1. The incidence of lactic acidosis in our revision was low. 2. Internal medicine admitted the greater number of cases.3. Renal failure was the principal concurrent factor. 4. The iodinated contrast use was an important concurrent factor. 5. The metformin was suspended in all the cases.

V-143
DECISION TO RESUSCITATE: WHAT IF THE HEALTHCARE WORKER WAS THE PATIENT?

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Objectives: The decision to start cardiopulmonary resuscitation (CPR) maneuvers raises quite often difficult ethical questions to healthcare workers. What are the key points that change the decision whether to star or not CPR? This study is aimed at knowing what the Portuguese healthcare workers (doctors and nurses) would like to be done if they were the ones suffering cardiopulmonary arrest, in different clinical scenarios. It is also intended to evaluate if there would be differences between doctors and nurses in these decisions.

Material and method: A questionnaire directed at Portuguese doctors and nurses (available in Portuguese at: https://docs.google.com/spreadsheet/viewform?pli = 1&formkey =

dHRmc0tSNFJjbmt4amY4NkRlaDFkM0E6MAγid = 0) was created, including scenarios of cardiopulmonary arrest in patients with different clinical conditions (elderly patients, cancer, comma, dementia). It was made available at several online forums of doctors and nurses and its divulgation was asked. The participation was voluntary and anonymous. Results were gathered automatically at a web based spreadsheet and later analysed with SPSS version 19.0.

Results: A total of 477 healthcare workers answered (322 doctors and 155 nurses), with an average age of 30.8 years old. Translation of the questions made and answers whether to start or not CPR in different clinical scenarios (dementia, cancer, coma, elderly age with good and bad physical condition) are displayed questions 1 to 6. Questions 8 and 9 show the reflection previously made and personal preferences in a scenario were the professional becomes unable to decide.

Discussion: In several questions the answers seem to be quite consensual as far as starting CPR or not is concerned (even between doctors and nurses). The vast majority (but surprisingly not all) would like a resuscitation attempt to be made if the arrest happened with the present health condition. Clinical condition seems to be more important than age when deciding to resuscitate. In the scenarios with the same age (90 years), the answers change drastically from yes to no when the health status is changed from good to bad. Some heterogeneity exists among decisions in other conditions, especially in cancer, where doctors are much more prone to want manoeuvres to be started. Nurses are more likely to have participated in CPR manoeuvres and more likely to have previously thought on these questions.

Conclusions: Although preferences are quite homogeneous in some scenarios, some would choose differently, even when facing irreversible conditions. What to do when personal preferences and medical logic collide? Ethics in end of life situations and critically ill patients is a very difficult issue and is far from consensual. Therefore, knowing what population and professionals think and would prefer to be done to them as patients is crucial to improve our (hard) clinical decisions.

V-144
PULMONARY FUNCTION IS IMPROVED SIGNIFICANTLY 5 YEARS AFTER BARIATRIC SURGERY

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Objectives: Obesity is associated with reduced pulmonary function. Bariatric surgery provides sustained weight loss and may improve pulmonary function. The aim of this study was to evaluate pulmonary function before and 5 years after surgery for morbid obesity.

Material and method: Bariatric surgery has been performed at Oslo University Hospital Aker since 2004. Patient data included anthropometric and spirometric data at baseline and at 5 years follow-up. Only one physician performed the 5 year follow-up consultations. Continuous data are reported as mean ± standard deviation (SD). Informed and written patient consent for use of data were retrieved. In total, 113 patients with BMI 47 ± 6 kg/m^2 and age 40 ± 9 years at time of surgery were included. 80 (71%) were women. 101 (89%) had gastric bypass, 10 (9%) duodenal switch and 2 sleeve gastrectomy. Spirometric data included forced expiratory volume in one second (FEV1), forced vital capacity (FVC), FEV1/FVC ratio and peak expiratory flow (PEF). Information of asthma and obstructive sleep apnea (OSA) were reviewed at baseline and at follow-up.

Results: Weight declined from 140 ± 25 kg at baseline to 100 ± 24 kg after 5 years ($p < 0.001$) and BMI from 47 ± 6 kg/m^2 to 34 ± 6 kg/m^2 ($p < 0.001$). FEV1 increased from 3.10 ± 0.93 liter (L) to 3.25 ± 0.76 L ($p < 0.001$) and FVC from 3.91 ± 0.90 L to 4.16 ± 0.94 L ($p < 0.001$). FEV1/FVC ratio was reduced and PEF was increased, the latter changes were small but statistically significant. Improvements in FEV1 and FVC correlated significantly with weight loss. At baseline, asthma was reported in 27 and OSA in 25 patients. After 5 years this was reduced to 14 and 5, respectively.

Discussion: Weight loss in this study compares to results of other long term studies after bariatric surgery. The improvements in pulmonary function correspond to the findings in short term studies. Also in this long term study, the improvements in FEV1 and FVC were substantial. The main improvements seem to be a relief in pulmonary restriction.

Conclusions: Bariatric surgery provides considerable weight loss and improvements in pulmonary function, and also in asthma and OSA 5 years after surgery.

V-145
HYPERCALCEMIA: THE REALITY OF AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Hypercalcemia is a relatively common clinical problem with a wide range of possible etiologies. However, hyperparathyroidism and malignancies account for greater than 90% of all cases. The degree of hypercalcemia and hypercalcemic symptoms can be useful in diagnosis. Patients with hypercalcemia of malignancy usually have higher calcium concentrations and are more symptomatic than individuals with primary hyperparathyroidism. Briefly, treatment should be started with hydration in all cases, and calcitonin and bisphosphonates are usually necessary in severe cases. Loop diuretics may be necessary in patients with renal or cardiac failure and glucocorticoids are effective in hypercalcemia due to chronic granulomatous diseases or lymphoma. The purpose of this study is to review the characteristics and management of patients hospitalized in an Internal Medicine Department with a diagnosis of hypercalcemia.

Material and method: A descriptive and retrospective study performed in an Internal Medicine Department. All patients admitted between January 2004 and March 2012 with primary or secondary diagnosis of hypercalcemia were included. Patients whose clinical process was unavailable were excluded.

Results: This study identified 29 patients with primary and secondary diagnosis of hypercalcemia; 4 were excluded. Of the 25 patients included 68% were females and the average age was 71 years. Hypercalcemia was the cause of admission in one third of the cases and they were hospitalized on average for 14.5 days. The serum calcium levels at the time of diagnosis ranged between 9.8 and 16.5 g/dl. The causes of hypercalcemia were solid tumors (7 cases), hematological malignancies (10 cases), primary hyperparathyroidism (5 cases), sarcoidosis (1 case) and two cases of unknown etiology. There was a higher prevalence of malignancy in severe hypercalcemia. Impaired renal function occurred in 44% of patients but no relation was found with the degree of hypercalcemia. Fluid therapy was a frequent treatment applied (72%).

Bisphosphonates (pamidronate or zoledronic acid) were used in only 24% of cases and calcitonin in only one patient. Most patients were normocalcemic at discharge.

Discussion: Primary hyperparathyroidism and malignancies were the most common causes of hypercalcemia, with a higher prevalence of malignancies in severe hypercalcemia, which is consistent with bibliography. In this study, no association was found between the degree of hypercalcemia and acute kidney injury, perhaps a consequence of the small study sample. Hydration is essential in the treatment of hypercalcemia and was performed in most cases. Pamidronate and zoledronic acid were the bisphosphonates used and are the most suitable according to literature. However, the administration of calcitonin and bisphosphonates in these patients was expected to be higher.

Conclusions: Primary hyperparathyroidism and malignancies were the most common causes of hypercalcemia in our study, as expected. As regards treatment, fluid therapy was frequently applied, but only a small proportion of patients received calcitonin and bisphosphonates.

V-146
THE EFFECT OF HOT OR COLD APPLICATION IN THE PATIENTS WITH KNEE OSTEOARTHRITIS

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Objectives: This study was carried on the patients with knee osteoarthritis with the aim of evaluating the effect of hot and cold applications.

Material and method: The study, carried out experimentally, was realized on the patients with knee osteoarthritis who come to Physical Treatment and Rehabilitation Out-patient Clinic of Ordu State Hospital between the dates of February-October 2011. 25 of 79 patients participating in the study were divided into hot group, and 29 of the patients for cold group, and 25 of the patients were divided into control group randomly. Hot application was applied to the hot group for 15 minutes per day and for the five days throughout a month, and cold application was applied to the cold group for 15 minutes per day and for the five day throughout a month, and any application wasn't applied to the control group. In the collection of the study data, questionnaire form, WOMAC Osteoarthritis Index, VAS pain scale and medicine assessment form were used. In the assessment of the data, Chi-square, One-way Anova and Duncan tests were used. The research was funded Ataturk University (BAP -2011/63).

Results: It was found out that there was no significant distinction between pre-test pain, stiffness and physical functional score of averages of the patients in the group of hot, cold and control ($p > 0.05$). But there was a significant distinction between post-test pain, stiffness and physical function score averages of the patients in the group of hot, cold and control group ($p < 0.05$). It was detected that this distinction between post-test pain, stiffness and physical function score averages resulted from hot-control group and cold-control group, but there was no significant distinction between hot and cold groups ($p > 0.05$, Duncan), throughout a month application process. It was also defected that there was no significant distinction between the use of medicine averages of hot, cold and control groups ($p > 0.05$).

Conclusions: In the conclusion of this study, it was found out that in the patients with knee osteoarthritis, the application of hot and cold provided significant recoveries in pain, stiffness and physical functions.

V-147
ACUTE HYPERGLICEMIA AND SEPSIS IN AN INTERMEDIATE CARE UNIT

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Objectives: Clinical and demographic description of inpatients of an Intermediate Care Unit (UCINT) who had sepsis criteria, as well as prevalence study of acute hyperglycemia (AH) in this group of patients.

Material and method: Retrospective and observational study based on UCINT´s data base (453 patients), from 2008 to 2011. Selection of patients with sepsis criteria (n = 151). Comparison of demographic characteristics, severity scores, clinical presentation, morbidity and mortality during internment in the group of patient who presented AH at admission (n = 31) and the control group (normal glycemia) (n = 120).

Results: Demographic characteristics were similar in both groups. The main infection focuses were respiratory and urologic. Amongst the 31 patients with AH (20.5%), the average glycaemia values were 358 mg/dL (minimum 201 mg/dL; maximum 752 mg/dL). In this group, 17 (54.8%) were diabetics, against 29 (34.1%) diabetics in the control group. The group with AH presented more co-morbility at admission, with an average Charlson Comorbility Score of 6.04 vs 4.40, and a higher average of Simplified Acute Physiology score, 31.0 vs 28.4. The AH group presented lower average internment days (8 days vs 10 days) but higher mortality rates (9.8% vs no deaths in the control group).

Discussion: Acute hyperglycemia occurs frequently in critical patients. Its physiopathology is complex and some authors have described an association with an increase in morbidity and mortality amongst seriously ill patients. In this study we found more co-morbidities and a higher severity scores at admission in the group of patients with AH, as well as a higher mortality rate.

Conclusions: Though we have found a statistical trend in our results, we consider that being a small dimensioned sample and a retrospective study, more studies are needed to clarify this trend.

V-148
MAGNETIC RESONANCE ENTEROGRAPHY (MRE) FOR THE MANAGEMENT OF CROHN'S DISEASE

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Objectives: To describe the experience a tertiary care centre during the first year of use of magnetic resonance enterography (MRE) for the management of Crohn's disease (CD): indications, results and influence of the technique in clinical decision making.

Material and method: Retrospective descriptive study in which patients who underwent MRE were included consecutively. Epidemiological and clinical data were collected from the patients, as well as the indication for the study and how it influenced clinical decision making in the 10 days following the radiological study.

Results: 150 MREs were performed. The indications were: presence of clinical symptoms of partial bowel obstruction in 53 patients (35%), monitoring of medical treatment in 34 (23%), suspected CD in 24 (16%), completion of study due to incomplete ileocolonoscopy in 16 (11%), extension study of the small intestine in 15 (10%) and suspected complicated CD in 8 patients (5%). The MRE was the reason for a change in treatment in 83 (55.3%) patients.

16 (10.7%) patients with immunosuppressants, 41 (27.3%) patients were started on or had a change in their anti-TNF, 15 (10%) patients were ordered surgery and in 3 (2%) patients the MRE led to a change from combined therapy to monotherapy.

Conclusions: The use of MRE in clinical practice had a relevant impact on decision making in more than half of patients, especially with regards to decisions related to the use of biological therapies and the indication for surgery.

V-149
RAPID DIAGNOSIS AND CARDIOVASCULAR RISK IN OUTPATIENT SETTING

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Objectives: We aimed to assess the differences in basal characteristics and medical conditions of patients who are attended in Rapid Diagnosis & Cardiovascular Risk Consultation in hospital by Young Internists, in order to improve patients management.

Material and method: We searched in our Consultation´s database the registration number of patients attended between June-2010 and January-2012 in weekly Young Internists Quick Diagnosis Consultation. We extracted dates from medical records about age, sex, morbidity assessed by Charlson Score, patients origin, presenting complaints, certain diagnosis and the follow up after discharge.

Results: In period between June -2010 and January-2012, 120 patients were attended in our consultation. 63% were men and 37% were women. The mean age was 65 years and the mean comorbidity assessed by Charlson score was 1.52. The mean of visits which were required to complete the diagnostic and therapeutic process was 3 visits.30.77% patients were referred from primary care physician, 32.48% from emergency department, 27.35% from specialties and 9.4% from Vascular Surgery. After complete evaluation, 66.32% were remitted to primary care physician, 4.08% to Surgical specialties and 29.59% to Medical Specialties. Most frequent presenting complaints and diagnosis are shown in the tables below.

Conclusions: Rapid Diagnosis Consultation may be a good tool to avoid unnecessary admissions, providing a quick way to manage patients. The 11% of patients come to our consultation are referred from Vascular Surgery to evaluate cardiovascular risk factors in a global way. Thus, we can provide a complete treatment of hypertension, diabetes, hypercolesterolemia... avoiding the cost of too many specialties.

V-150
THE ROLE OF FECAL CALPROTECTIN IN CLINICAL PRACTICE

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Objectives: Calprotectin is a polypeptide derived form neutrophils; fecal calprotectin can be considered as a direct measure of intestinal inflammation; it may be used to differentiate among patients with abdominal symptoms those who require invasive investigations. In our study we wanted to evaluate the practical utility of this marker for patients admitted in an Internal medicine Department.

Material and method: We have performed a prospective study on 60 consecutive patients admitted in the Internal Medicine Department of Municipal Hospital in Oradea during 2011 who presented with: diffuse abdominal pain, bloating, diarrhoea, constipation or alternation between diarrhoea/constipation. In these patients we measured fecal calprotectin (normal values ≤ 40 µg/g; 40-60 µg/g inconclusive, > 60 µg/g = positive) and we also performed colonoscopy. Colonoscopy was mandatory in patients with weight loss, familial history for cancer, positive Hemocult test.

Results: The patients evaluated had the following diagnosis: 30% irritable bowel syndrome (IBS), 28% diverticulosis, 20% polyps, 14% inflammatory bowel diseases (IBD), 8% colorectal cancer. In patients with normal colonoscopy, the values of fecal calprotectin were < 40 µg/g in 97% of cases and the diagnosis was IBS. In patients with organic lesions the values of calprotectin were > 60 µg/g in 92% of cases. Values above 100µg/g have been found in IBD and cancers. There was also a correlation with age: in younger patients the prevalence of IBS and IBD was higher, in older patients we found diverticulosis, polyps and colorectal cancer more prevalent.

Conclusions: Fecal calprotectin is a useful marker for screening, being able to differentiate IBS from organic lesions. There is a good concordance between the values of calprotectin and the results of colonoscopy; in patients with normal values of fecal calprotectin, colonoscopy is not required. In those with increased values of fecal calprotectin colonoscopy becomes necessary (compulsory). The cost of calprotectin is half of the colonoscopy price.

Table 1 (V-149). Presenting complaints

Presenting complaints	Percentage	Presenting complaints	Percentage
Constitutional symptoms	8.47%	Cardiovascular risk	11.01%
Adenopathies	6.78%	Syncope	6.78%
Digestive disorders	12.71%	Anemia study	9.32%
Dyspnea	9.32%	Miscelaneous	29.66%
Arrhythmia	8.47%		

Table 2 (V-149). Certain diagnosis

Certain diagnosis	Percentage	Certain diagnosis	Percentage
Neoplasia	9.64%	Cardiovascular risk factors	12.28%
Heart failure	4.38%	Infectious diseases	10.52%
Arrhythmia	11.4%	Autoimmune disease	3.5%
Pulmonary disorders	7.01%	Miscelaneous	29.82%
Digestive disorders	16.66%		

V-151
IS THE ULTRASOUND A USEFUL TOOL DURING CARRYING OUT OF PROCEDURES IN AN INTERNAL MEDICINE SERVICE?

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Objectives: Ultrasound use has grown considerably becoming a standard of care in a variety of procedures in some specialties so the aim of this study was to describe the initial use of ultrasound during carrying out of procedures by internal medicine physician in the internal medicine service of Virgen de la Luz Hospital.

Material and method: During April 2012, ultrasound assisted procedures were performed by an internal medicine physician in patients admitted to internal medicine wards. Patients gave their written informed consent. The procedures were thoracocentesis, paracentesis and central vein catheter placement. A M5 colour Doppler Ultrasound with static technique was employed. Physicians had been trained to use ultrasound by clinical ultrasonography group of SEMI.

Results: Ultrasound assisted procedures were performed in 6 male patients of internal medicine wards. The mean age was 75, 6 years old. There were five thoracocentesis (83.3%) and one (17.7%) ascites puncture. There was not central catheter placement. Fluid was successfully obtained in the first attempt in all occasions without complications. The majority of pleural effusions were exudate (66.6%).

Discussion: Internal medicine physician perform bedside invasive procedure such as thoracocentesis, paracentesis and central venous catheter placement in many teaching hospital in Spain. Data suggests that ultrasound assisted during this procedure can decrease complications, reduce costs, improve procedure related outcome and enhance patient safety. Our study though performed in a small number of patients in consistent with previous data. The societies of American emergency physicians, Echocardiography and Cardiovascular anesthesiologists have developed some criteria to assist practitioner performing emergency ultrasound study and ultrasound guided vascular cannulation. There are not currently recommendations in Spain about ultrasound assisted procedures. In this study we followed the American emergency physicians' guidelines. Although we had a small number of patients and there was not a control group, these findings suggest that implementation of ultrasound assisted procedures in our Internal Medicine Department could improve clinical outcome, because we obtained fluid from pleural effusions and ascites in the first attempt. Besides patients' safety and less costs can be also achieved.

Conclusions: Ultrasound appear to be a useful tool for interventions performed bedside by internist so it is imperative that future internal medicine physician have solid foundation in ultrasonography and is trained to take advantage of this powerful tool.

V-152
USE OF THE BLATCHFORD SCORE IN UPPER GASTROINTESTINAL BLEEDING IN THE EMERGENCY DEPARTMENT

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Objectives: To determine the usefulness of the Blatchford score in non-varicose upper gastrointestinal bleeding as a predictor of emergency clinical and/or endoscopic intervention in our population.

Material and method: Observational study that included 127 cases of upper gastrointestinal bleeding confirmed by endoscopy as high-risk according to the Blatchford score applied retrospectively. The study setting was the emergency department at Hospital Torrecardenas Almería, Spain, between January 2009 and December 2010. The data were obtained from the DIRAYA computer system. Subjects were classified quantitatively into 2 high-risk subgroups according to the Blatchford score, group I less than 10 points and group II greater than or equal to 10 points, which was correlated with the need for emergency versus early clinical and endoscopic intervention.

Results: In our study, 63.8% (81 cases) were men and 36.2% (46 cases) were women. The most frequent endoscopic lesion for both subgroups is the type IIC based on the Forrest classification. Therefore, only 32.3% of cases required endoscopic sclerotherapy. There were no statistically significant differences between endoscopic or surgical treatment in the high-risk subgroups. 63% of cases received a blood transfusion due to acute anemia. This correlated significantly with a higher Blatchford score.

Discussion: A high-risk Blatchford score is not useful in predicting the need for urgent versus early endoscopic intervention in non-varicose upper gastrointestinal bleeding. The most frequent lesion in patients with a high-risk Blatchford score is Forrest IIC, with no significant difference in the high-risk subgroups.

Conclusions: The need for blood transfusion is directly proportional to the high-risk Blatchford score. Validation studies are needed for risk-stratification scales in order to understand their use and improve their utility in healthcare services.

V-153
CHARACTERISTICS OF HOSPITAL READMISSIONS IN ONE YEAR PERIOD IN AN INTERNAL MEDICINE WARD

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Objectives: Described patient characteristics, nutritional status, length of stay, diagnosis in first admission and source of the patients

Table 1 (V-151)

Age	Sex	Pathology	Procedure	Liquid characteristic	Complication
55	Male	Ascitis	Paracentesis	Transudate	No
88	Male	Pleural effusion	Thoracocentesis	Exudate	No
89	Male	Pleural effusion	Thoracocentesis	Exudate	No
75	Male	Pleural effusion	Thoracocentesis	Exudate	No
61	Male	Pleural effusion	Thoracocentesis	Exudate	No
86	Male	Pleural effusion	Thoracocentesis	Transudate	No

that have at least one readmission during this period compared with the patients that were not readmitted.

Material and method: A retrospective, descriptive study of hospital readmissions that occurred over a one year period from January to December 2011 in an internal medicine ward of the General University Hospital in Valencia City.

Results: This study included 869 discharges between January 1st and December 31st 2011, in a total of 824 patients. We analyzed results dividing them into two groups; 204 were readmissions (23%) and 665 (77%) were admitted only once. there were no differences in patient sex among the two groups. The median age in these two groups groups was 84 years. In the group of patients who were not readmitted, the main diagnosis was pneumonia (10.5%) followed by urinary tract infections (UTIs) (7.4%) and among the group of readmitted patients, the principal diagnosis was pneumonia (12.6%) followed by congestive heart failure (CHF) (11.9%) with p 0.028. For the patients who were only admitted once, the average length of stay in their first hospitalization was 8.5 days compared to 9.88 days among patients readmitted (p 0.03). For the readmission group, 22% of the patients were discharged on Thursday and 27% on Friday compared with 16% on Thursday and 20% on Friday in the non readmitted group (p 0.01). The nutritional status in the non readmitted group were 61% malnourished and among them, 18% had protein malnutrition, 16% caloric malnutrition and 26% mixed malnutrition; in contrast, in the readmitted group 61% were malnourished; among them, 21% had protein malnutrition, 17% caloric malnutrition and 22% mixed malnutrition. 19% of the patients who came from nursing homes were malnourished (p 0.013). Amongst the patients who were readmitted within the first 30 days after index discharge, 37% of them were malnourished versus 28% of patient who were readmitted after 30 days (p 0.022). Patients in the readmitted group who had more days of hospitalization in their first admission were the ones who had more chance of being discharged in their second admission with the help of the home hospitalization unit. The source of admission had an implication on the duration of hospitalization, the patients transferred from other wards had more days of hospitalization with a mean of 33.33 days versus those who came from their home, 9.42 and those who came from nursing homes, 9.46 (p 0.001).

Discussion: A quarter of the patients seen in one year were readmissions with no statistical differences between men and women. The main diagnoses were pneumonias followed by CHF in the readmission group, so the patient that has one of those as initial diagnosis, has more chance of being readmitted compared to the patients that have a different initial diagnosis. Another possible predictor of rehospitalization is the duration of the index hospital stay, if a patient is first admitted for a longer period, it is more likely that he will be readmitted. Also, we found a difference in the day of the first discharge, because if this occurs on Thursday or Friday, there is more chance the patient will be readmitted. We found two characteristics in the patients who were readmitted; firstly, patients coming from a nursing home were more malnourished and secondly, that there is a link between the nutritional status and the likelihood of being readmitted within the first 30 days after their index discharge.

Conclusions: We found no difference in the nutritional status amongst patients admitted once and the patients who were readmitted more than once, we cannot however assure that this could be used as a predictor for patient readmission, more studies would be necessary in order to establish a relationship between the nutritional status and the possibility of readmission. Also, we are not so far from having a scale that will predict the possibility of a patient being readmitted in the future.

V-154
CLINICAL PROFILE OF PATIENTS ASSISTED BY THE INTERNAL MEDICINE RESIDENT DURING SHIFTS IN A SPECIALITIES HOSPITAL OF THE SAS

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Objectives: Clinical and epidemiological analysis of the beeps received in the blepper of the internal medicine resident during shifts in a specialities teaching hospital.

Material and method: Analysis of 200 calls received in different shifts of the internal medicine residents from a database including: time of day, speciality, reason for calling, age and sex of patients, diagnosis at admission and whether it was necessary or not treatment adjustment.

Results: From the 200 beeps analysed, the majority of them (37%) were from the period of time ranging from 12 pm to 18 pm, followed by the one from 18 to 22 pm (34%), 8 am-12 pm (15%) and 22 pm-8 am (14%). The most demanding service was Internal Medicine (46%), followed by Cardiology (12%), other surgical areas (9.7%), specially for case conferences (26.7%), Pneumology 88.7%), Oncology (6.3%), Gastroenterology (5.8%), Neurology (4.8%) and Infectious Diseases (3%). The most frequent cause for it were admissions (32.2%) and case conferences and complementary test results (26.7%). Glycemia disorders (7.2%), dyspnea (6.3%), deceases (4.6%) and agitation (4.6%) were less frequent. The age of our patients mainly ranged 60-80 years-old (48.2%), followed by the 40-60 stage (21.7%) and those older than 80 years-old (20.5%). They were male (60.6%) predominantly. The most common reason of admission were infections of different etiologies (29%) and heart failure (17.4%), followed by COPD exacerbations (14.3%), neoplasias (10.3%) and myocardial ischemia (14.3%). The majority of them needed treatment adjustment.

Discussion: Most beeps received by the internal medicine resident are for admissions of patients and case conferences and complementary test results. Beeps are usually in the afternoon-evening and the patients are mainly males, ranging from 60 to 80 years-old, with any kind of infection, heart failure or COPD exacerbation.

Conclusions: Although mostly claimed for admissions of its speciality, the internal medicine resident deals with clinical and therapeutic difficulties of patients and pathologies of all medical specialities, allowed by its overall view of medicine.

V-155
A DESCRIPTIVE STUDY OF THE RARE DISEASES UNIT IN THE INTERNAL MEDICINE DEPARTMENT OF UNIVERSITY GENERAL HOSPITAL OF ALICANTE (HGUA): THE EXPERIENCE OF FOUR YEARS

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Objectives: The Internal Medicine Service of HGUA, in response to society's demand, initiated in November 2008 the creation of a reference unit for the management of rare diseases. Since its creation, a progressive increase in the number of consultations has been observed. The aim of this study is to analyze the activity of the Rare Diseases Unit in our Department of Internal Medicine since its opening in November 2008 to May 2012.

Material and method: Descriptive study of patients treated in the Rare Diseases Unit of the Internal Medicine Service of HGUA since November 2008 to May 2012. The medical records of all patients seen were reviewed and clinical variables were collected. This information was introduced in a database. The analysis of this database has been carried out through the program SPSS.

Results: During the period from November to May 2012, a total number of 165 patients were treated, out of which 69 were male (41.8%) and 96 (58.2) were female, with an average age of 45.3 years. The age at diagnosis of the diseases in a range of 1-69 years old. Patients were referred mainly from the Internal Medicine Service (25%) and from The Spanish Federation of Rare Diseases FEDER (9.7%). Patients were also referred from Primary Care department (6.1%) and other services such as Rheumatology (5.5%), Otorhinolaryngology (4.8%), Neurology (4.2%), Digestology (4.2%) among others. 81 different diagnosis were collected, being the main reason for consulting the study towards the discard of Marfan's syndrome (11.5%). The most frequent diagnosis is Marfan's syndrome (9%), followed by Ehlers-Danlos disease (5.5%), Von Recklinghausen disease (4.2%), marfanoid habitus (3.6%), acute intermittent porphyria (3.6%) and ectopia lentis (3%). 48.5% of the diseases are congenital and 27.9% are acquired. A genetic study was conducted to 91 patients (55.2%). The patients were referred to other specialists, being the most consulted services: Ophthalmology (16.74%), Cardiology (16.25%), Digestology (10.83%), Neurology (8.8%) and Rheumatology (6.8%).

Discussion: The increase of the diagnosis of rare diseases is based on the best knowledge and medical consensus on the disease which also contributes to an increase of its prevalence diagnosis. The Internal Medicine Service meets the requirements for the assistance to patients with a diagnosis of rare diseases. The growing demand in this consults has been exponential in the last two years, becoming the reference unit in our province. The study has allowed us to know the needs of our unit and therefore to carry out a more suitable planning of the health care of a unit in continuous growth.

Conclusions: The Internal Medicine service has proved to meet the necessary requirements for the management of these pathologies and the Rare Disease Unit has become a reference unit. In our Rare Disease Unit the most frequently managed pathology is Marfan's syndrome. Patients are referred from different services for a multidisciplinary management. The implementation of diagnosis protocols and treatment for some diseases has allowed a better and more responsive health care of rare diseases. It would be necessary to create protocols for each of the rare diseases.

V-156
HEDEDITARY HEMACHROMATOSIS. A VERY FREQUENT DISEASE DIAGNOSED IN THE HEALTH CENTRE AREA IN THE NORTH JAÉN

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Objectives: The hemachromatosis belongs to a group of diseases characterized by the overload of iron in our body. It can have acquired or hereditary forms (mutations CD82YD, H63D). This last one is especially prevalent in our health centres area of the north of Jaen. In this study we describe our experience as well as the factors which determine its evolutionary development.

Material and method: Descriptive and retrospective epidemiology study of the patients who present some genetic mutation of the hemachromatosis in an outpatient consultation of Internal Medicine.

Results: The total number of identified patients is 19. The average age is about 48 years (between 19-70). Sex: 79% men, 21% women. In the 47.4% of the patients diagnosed there are family inherited factors of hemachromatosis, in 52.6% these are unknown. The most common mutation is H63D which is found in 100% of the patients (73.68% are heterozygotes, 21.05% are homocygotes, one only patient is double heterozygote for the mutation of the gene H63D and C282Y). Among the concomitant pathologies which have been found in 57.9% of the patients, the most frequent are hypertension (36.8%), dyslipemia (21%), diabetes (only one patient). Toxic habits; 26.31% are smokers and heavy drinkers (all of them men). All the diagnosed patients are refered to the Primary Care Emergency Service by an increase of the ferritin in the anlytic control (42.1%), familiar study (42.1%), others by an increase of the elevated liver enzymes (17.78%). Only one of the patients presents symptomath¡ology in the form of osteoarticular symptoms, the rest of them are asymptomatic. There is any patient who shows in the monitoring process degeneration in cirrhosis or hepatocellular carcinoma. The 26.31% presents fatty liver which coincides with those patients who have an increase of the elevated live enzymes. The average of the monitoring process is 4.6 years. In the therapeutic:31.57% of the patients do not need phlebotomies during the follow-up process, 31.57% need less than 5 phlebotomies, 15.78% between 5-10 and 21.05% more than 10.

Discussion: The periodicity of the phlebotomies is higher in the homozygote carrier or double heterozygote in the disease diagnosis, men and the existence of a severe ingestion of alcoholic beverages (the alcohol increases the absorption of iron in our body). There are any cases of hepatic cirrhosis or hepatocellular carcinoma due to the short follow-up period since the disease was diagnosed. These will probably develop as time goes by, above all in those patients with concomitant pathologies and or persistence of toxic habits.

Conclusions: All the patients have been diagnosed in our consultations in the last 5 years. The regularity of the phlebotomies decreases with the age, feminine sex and healthy lifestyle. The heterozygote carrier H63D needs some sporadic phlebotomies except in heavy drinkers. The healthy heterozygotes H63D diagnosed with familiar study only need half-yearly or yearly medical tests. The homozygote's carriers H63D and the double heterozygote C282Y-H63D need phlebotomies more frequently, they have a check-up every 3 months. The heterozygotes H63D alcohol drinkers need phlebotomies and checkups as regularly as the other previously mentioned. Further complications have not been detected as the case of cirrhosis or hepatocellular carcinoma because of the short/narrow monitoring of our patients in the Outpatient Services Center.

V-157
A STANDARDISED MORTALITY REVIEW OF PATIENTS DYING OF ACUTE KIDNEY INJURY AT SHERWOOD FORREST HOSPITALS TRUST IN 2011

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Objectives: To standardise the process of mortality review. To identify any evidence of suboptimal care in the management of patients who had died having presented with acute kidney injury (AKI). To initiate change in practice based on the findings of the mortality review. To devise methods or systems that could prevent avoidable death in this patient category. To improve patient safety in patients being admitted to this trust with acute kidney injury.

Material and method: A case note review of patients with acute and unspecified renal failure was triggered following analysis of the hospital standardised mortality review (HSMR). We used the IHI Global Trigger Tool grid (UK version) to identify any triggers of

patient harm in the selected group of patients and then categorised these triggers into the level of harm sustained as a result. Care was compared to optimal care as outlined in the hospital policy for management of AKI. We also used a series of "deep dive questions" extracted from the NHS institute for Innovation and Improvement to assess and identify failure of care at the trust. These were then categorised into the following: Was death avoidable? Was there harm before admission?; Failure to plan/follow protocol: Failure to rescue or Failure to communicate.

Results: We analysed 34 sets of case notes and identified 15 deaths which were possibly avoidable if optimal care had been given. Of these 15 deaths, the following categories of harm were identified. Harm before admission due to delayed recognition of AKI was evident in 3 (20%) patients. A failure to follow hospital protocol on management of AKI was a significantly contributing factor in 8 (53%) patients. Failure to plan was evident in 12 patients ie; 80% of avoidable deaths. This was either a failure to follow protocol on the management of AKI, failure to plan management of coexistent cardiac failure or failure of general nursing care. Failure to rescue was identified in 2 (13%) patients, due to failure to act on deteriorating vital signs. A failure to communicate was identified in 1 case (7%). The Trigger Tool for was used and identified patient harm triggers in 12 of the 15 possibly avoidable deaths. These ranged from 1 to 6 triggers per patient. However, these were not felt to correlate with the degree of harm to the patient.

Discussion: The results show a failure in all 4 categories that were highlighted. The majority being a failure to follow the hospital policy. To combat this, we have initiated a computer alert system for patients who develop AKI and we are currently putting together an education pack for junior doctors on AKI. We want to relaunch and republicise the hospital policy and communicate this to the primary care doctors. We will also be reviewing discharge documentation to allow clearer instructions on further management to the primary care physicians. We will also take steps to improve general care and prevent dehydration in inpatients.

Conclusions: A standardised mortality review of patients can lead to identification of patient safety issues which can then allow new systems to be put into place to avoid such errors. We would suggest that individual hospitals incorporate standardised mortality review into their routine audit practice.

V-158
CLINICAL FEATURES, DIAGNOSTIC PROCEDURES AND TREATMENT ON PATIENTS WITH CAROTID GLOMUS TUMOR ON A THIRD LEVEL HOSPITAL OF CASTILLA LA MANCHA

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Objectives: Analize clinical features, diagnosis procedures, treatment and postoperative sequels of the population with carotid glomus tumor on a third level hospital of Castilla-La Mancha.

Material and method: We made a retrospective descriptive study on the patients diagnosed of carotid glomus tumor in the General Universitary Hospital of Albacete between 1995 and 2012. We analyzed: sociodemographic variables, clinical findings at the moment of diagnosis, complementary test used, treatment and postoperative follow up of the patients.

Results: A total of 23 patients were included in the study, 16 men (69.5%) and 7 women (30.5%). Average age was 57 years [IR: 47-65.5]. Four patients presented bilateral tumor (17.4%), with a total of 27 tumors included in the study. Sixteen patients (69.56%) showed neck mass, most of them pulsatile at the moment of diagnosis. One patient (4.34%) showed dysphagia when was diagnosed. In four patients (17.4%) the diagnosis was a casual finding, two patients (8.7%) were diagnosed after an ischemic stroke, dysphagia was the first clinical finding on one patient (4.34%). Patients were diagnosed by their clinical findings and eco-doppler in seventeen cases (74%). Cervical CT was the key for diagnosis in six patients (26%). In all patients we realized a body CT to look for extended disease. Catecolamin-production test was realized on twelve patients (52.17%) to identify active paragangliomas. In twenty four patients (88.8%) was performed surgical treatment. In asymptomatic patients (11.2%) we performed conservative treatment. We realized embolization before surgery on ten out of the twenty four patients that observed surgical treatment. Arteriography before surgical procedure was realized on twenty patients (74%). The twenty seven cases were divided according Shamblin classification: ten patients (37%) as type I, eleven patients (44%) as type II, and six patients (22%) as type III. Postsurgical complications: Nervis vagus lesion was found in four patients after surgery, nervis hypoglossus lesion was found in seven patients after surgery, cerebral stroke in one patient, clinical paresthesias in one patient, scar pain in one patient and one patient needed additional surgical procedure due to postsurgical bleeding. Postsurgical follow up: three patients (13%) need no additional tests, eco-doppler was realized in fourteen patients (60.86%), in four patients (17.4%) was realized CT and in two patients (8.7%) was realized CT and eco-doppler. In the pathology were found: twenty paragangliomas (83.2%), two glomus tumors (8.4%), one fibrohisticioma (4.2%) and one hemangioma (4.2%). No family-associated disease was found in our group of study.

Conclusions: Carotid glomus tumors show low incidence in population. The main clinical finding is laterocervical tumor on the neck, usually pulsatile. Carotid glomus tumors are diagnosed by their clinical findings and using complementary tests, cervical eco-doppler in most cases. A body CT should be realized in every patient with carotid glomus tumor to valuate metastasis. Urine levels of catecolamine should be tested as part of the usual valuation after diagnosis to identify functional paragangliomas. Postsurgical follow up must check the presence of clinical symptoms after surgery and additional eco-doppler should be realized when those symptoms appear.

V-159
FOUR REASONS WHY THE MORTALITY RATE IS GROWING IN MEDICAL WARDS

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Objectives: Describe and characterize the deceased population between the years of 2008-2009 and 2010-2011. Understand the progressive and growing mortality rates in medical wards.

Material and method: In order to characterize this population, we conducted a four year retrospective analysis and review of the deceased patients' medical records in our medical ward between January 2008 and December 2011. For each patient we registered the patient's age, gender, dependence degree, main and associated diagnosis as well as cause of death, inpatient length of stay, death predictability and origin of the incoming patients.

Results: A total of 1018 mortality records were reviewed, corresponding to an overall mortality rate, in the four year period, of 14.22%. Comparing the years of 2008 and 2009 with 2010 and 2011, we found and increase in the mortality rate from 13.97% to 15.80%. The mean age of the deceased patients increased from

77 (2008-2009) to 79 years old (2010-2011) (p = 0.015). With regard to the dependence degree, we obtained a statistically significant result (p = 0.0005) when analyzing the amount of patients with need of special nurse care, which has been growing in the last four years. Although the complexity rate of all the inpatient, evaluated based on Diagnostic Related Groups classification, has remained roughly the same during the last four years, the opposite occurred among the deceased ones, in whom we found a rising tendency when comparing the first two years with the last two of the study period. When analyzing the origin of the incoming patients prior to being hospitalized, we found that in the last two years of the study the proportion of patients previously institutionalized in long term medical care facilities quadrupled. We also registered an increase in the death predictability, which grew from 27.0% (2008-2009) to 40.0% (2010-2011).

Discussion: The data analysis allowed us to note that we are basing our judgment in mortality rates that are not comparable because they relate to different populations, at least in what concerns to age distribution, dependence degree, complexity rate and patients' origin. Regarding the age distribution between all the inpatients and the deceased ones, we confirmed what we already knew about how our population is ageing, but also found out that the ones who are dying are increasingly becoming even older. If we adjust our mortality rate, standardizing by age, we reach lower values even without taking into account all the other studied and non-studied variables. The complexity of this trend makes it very difficult to appreciate, understand and turn in to countable facts all the variables that are involved. Besides, there are dynamic cultural differences between populations that also have the potential to shape this problem.

Conclusions: World population is changing. The inpatient population is changing. The deceased population is changing in so many directions and so quickly that it is becoming a challenge keeping up with all these changes in order to understand them and to adapt our standard of care. With the purpose of better characterizing and explaining this recent and global increase in mortality rate in medical wards, several studies are already in progress, including one in our hospital, so that we can better understand and accompany this phenomenon.

V-160
QUALITY OF LIFE ANALYSIS ACCORDING TO EDUCATIONAL LEVEL OF CARERS IN A PALLIATIVE CARE PROGRAMME IN THE AREA OF PUERTO REAL UNIVERSITARY HOSPITAL

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Objectives: Introduction: Terminally ill patients tend to be seen at home, by Palliative Care programs. In them their family play a basic role. Carers of terminally ill patients deal with lots of responsibility, which can reduce physical and mental health of the person in charge and affect its quality of life. Objectives: Evaluate quality of life of carers of terminally ill patients included in palliative care program of our center, related to educational level.

Material and method: Descriptive transverse study with a two months inclusion period. Participants: patients included in the palliative care program and assisted by the unit in the first two months of 2012. A questionnaire of quality of life (including degree of satisfaction with information, training on cares, emotional support, symptoms of tiredness, stress, anxiety, disappointment, anorexia, social relations) was passed on carers. For the analysis we used χ^2 test of the SPSS statistical program. Correlations between variables of the carer (educational level) were performed with every dimension of the questionnaire "quality of life of the carer".

Results: Educational level high/low: tiredness 42.9%/57.1%, fear 35%/65%, sorrow 31.8%/68.2%, anxiety 30.4%/69.6%, loss of hope 33.3%/66.7%, disappointment 30.4%/69.6%, rest disorders 37.5%/62.5%, couple problems 31.2%/68.8%, distraction 34.5%/65.5%, stress 38.9%/61.1%.

Discussion: Taking care of a terminally ill patient clearly influences quality of life and welfare of the carer. Carers with low educational level show higher affectation of their quality of life.

Conclusions: It is necessary a full assessment of the family that takes care and accompany a patient in a palliative care program to try to prevent the arousal of a pathological decrease of quality of life.

V-161
CHANGES IN MANAGEMENT OF COPD PATIENTS ADMITTED TO A TERTIARY HOSPITAL OVER THE LAST TEN YEARS

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Objectives: To evaluate differences in management and specific diagnostic procedures in COPD patients admitted to an Internal Medicine department between two samples separated each other with a gap of ten years.

Material and method: We performed a retrospective descriptive study with COPD patients admitted to an Internal Medicine department in a tertiary care hospital from 1st January to 31st December of years 2000 and 2010. We used two randomized samples with one hundred patients each. We included COPD patients 18 years old or more admitted for acute exacerbation. In this study we evaluated the diagnostic and therapeutic characteristic of the patients, for which we made a protocol. We used SPSS program to data analysis.

Results: The mean age was 78.49 years-old in sample of year 2000 and 79.79 in that of 2010. Regarding gender, percentage of men was 77% vs 73%. 19% of patients were on domiciliary oxygen therapy in 2000 and 25% in 2010 (p 0.25). Arterial blood gas analysis were performance in 93% vs 72% (p 0.001). We observed a PaCO2 greater than 45 mmHg in the 52% and 30% of each sample. 73% vs 84% had undergone pulmonary function tests (PFT). Among corticosteroid-dependent patients, 25OHD were not obtained in 85% and 90% of the patients for each sample, and no densitometry was performed in any of them. Furthermore, none of the patients was given oral D vitamin, calcium or treatment with bisphosphonates in the year 2000, and only 1% of patients of 2010 received treatment with Vitamin D supplements. Parenteral corticosteroid treatment was given to 50% of patients in both groups. We observed a greater dose in the year 2000 sample (up to 140mg). In both samples doses of corticosteroids were in accordance with severity of COPD. On other hand, concomitant use of parenteral and nebulized glucocorticoids was found in 69% vs 29% (p 0.001). 92% vs 91% of patients received antibiotics, although only 63% and 69% respectively met the Anthonisen criteria. The most used antibiotic was amoxicillin-clavulanate (58% vs 35%). Use of broad-spectrum antibiotics, such as piperacilin-tazobactam, increase from 2% to 13% in both samples. Low molecular weight heparins were used in 19% and 50% of patients with associated comorbidity, respectively (p 0.01). Among patients who received parenteral corticosteroids, proton pump inhibitors were given in 34% and 66% of each group (p 0.01).

Discussion: The patients who had oxygen at home increased in 2010. In this study we observed that gas analysis was performance in most our patients in 2000, while it decreased in 2010, which lead to detect less number of CO_2 retainers and this made more difficult the treatment of exacerbations. 27% of patients in year 2000 and 16% in 2010 were diagnosed of COPD with clinic criteria, although the diagnostic require a spirometry. It's known that in corticosteroid-dependent patient, osteoporosis study should be performance; in our patients we observed that this practice is insufficient and we should promote it. Actually it is not defended combined use of systemic and nebulized corticoid, in our sample this practice is decreased in more than 50%. We use antibiotics in almost all the patients, although in much case doesn´t exit clinic criteria of infection. The antibiotics more used are similar than recommendations of guidelines. The use of broad-spectrum antibiotics had increased in last years. According to the publications, patients with comorbidities who income for a COPD exacerbations have to received antithrombotic prophylaxis; that is increasing in our patients, although actually only 50% of patients received it. The use of inhibitors de proton pumps is higher now than in 2000.

Conclusions: COPD treatment and diagnosis have changed in the last years. Pulmonary disease must be treated but also comorbidities. In our study, we observed that those changes are increasing although there are some aspects that we should improve.

V-163
RETROSPECTIVE STUDY TADE IN HOME HOSPITALIZATION UNIT AT UNIVERSITY HOSPITAL NUESTRA SEÑORA DE LA CANDELARIA DE TENERIFE

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Objectives: Home intravenous antibiotic treatment (TADE) is the treatment of infectious disease in the patient's home and is also accompanied by set of care activities, health and social taking place at home. Its design is comprehensive and the secret of its functioning is based on the proper development and exquisite coordination of health care resources that flow into it.

Material and method: A descriptive retrospective review of the database of the treatments administered in the period May 2010 to February 2012. We analyzed age, sex, length of stay, the treated pathologies, common microorganisms.

Results: We analyzed a total of 180 medical records, the average age 59.8 years, the average stay of patients was 15.01 days, of which 58.49% were men, and women 41.5%. The most common pathologies were intra-abdominal infections (18.64%), urinary tract infections (16.9%) followed by the NAC (15.25%), febrile neutropenia (6.7%), other causes (42.51%). As for the most common microbial isolates are methicillin resistant Staphylococcus aureus at (MRSA) 15%, Pseudomonas aeruginosa 12.5%, 12.5% coagulase-negative staphylococci, E. 10% ESBL coli, E. coli 7.5%, Enterococcus faecalis 7.5%, Klebsiella neunoniae 7.5%, other 22.5%. They avoided a total of 2,702 days of income.

Conclusions: When the antibiotic should be used at the extra hospital should be considered primarily the bacterial spectrum and method of administration/dosage, being always preferred, according to the antibiogram, that make it easier to administer. Arguably, any infection is treatable in a program TADE. The complexity and severity of patients seen are increasing. There is also a general tendency to limit hospital stays because of its cost and the risks inherent to hospitalization.

V-164
RESULTS OF THE RAPID DIAGNOSTIC CONSULTATION IN THE HOSPITAL OF ZAMORA

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Objectives: To assess the patients seen in the Rapid Diagnostic Consultation (RDC) to improve its performing.

Material and method: Retrospective study performed from February 1st 2011 to April 31st 2012 to analyze the patients seen in the RDC. The data source used was the archive of clinical records of our hospital. The analyzed data were: time elapsed from the application day to the day of the appointment; number of consecutive consultations until diagnosis; requested tests (blood tests, CT scans, endoscopies, serologies, others...); time passed until the performance of imaging tests and endoscopies; number of patients that required a biopsy; time gone by until anatomo-pathologic diagnosis; reached diagnosis; time elapsed until diagnosis (that is, until the case is presented in the Tumour Committee when the diagnosis is a neoplasm).

Results: Eighty nine patients were analyzed, 48 females (53.9%) and 41 males (46.1%) with an age range from 16 to 100 years (average 61.1). Appointments were given in 1 to 14 days (average 7.5) and the number of consecutive consultations varied from 0 to 4 (average 1.4). Blood tests were performed in 85 patients (95.6%) and any kind of imaging technique in 59 (66.9%). Thoracoabdominal CT scan was requested in 39 cases (43.8%) with a mean appointment time (MAT) of 8.9 days. Other imaging procedures in figures are: 9 abdominal ultrasound (US) (MAT 8.4), 2 thyroid US (MAT 9.5), 2 thoracic angioscan (urgent appointment), 1 arterial Doppler US, 1 mammography, 4 MRI (MAT 11.5), 1 cervical spine CT scan and 1 cranial CT scan. Thirteen gastroscopies have been performed (MAT 7.9), 9 colonoscopies (MAT 14.1) and 7 upper and lower gastrointestinal endoscopies (MAT 9.2). Five CT-guided biopsies were carried out (MAT 9.6) and 2 EUS-guided ones (1 from the respiratory tract and 1 from the esophagus). The average time until anatomo-pathologic results were given was 6.9 days. A total of 26 biopsies were performed. In relation to the treated pathologies assembled into groups we found: 19 oncological processes (19%), 17 non-oncological GI processes (19%), 16 infectious processes (17.9%), 8 traumatological processes (9%), 7 systemic diseases (7.8%), 7 thromboembolic diseases (7.8%), 5 psychiatric disorders (5.6%), 3 surgical processes (3.4%), 4 dermatologic processes (4.5%), 2 processes related to side effects of drugs (2.4%), 2 cardiopathies (2.4%) and 8 cases with no relevant pathology (9%). The average time to diagnosis was 15.9 days.

Discussion: The RDC takes place once a week. There is a doctor and a nurse as human resources with the possibility of attending 3 new patients each day. The possibilities of improvement are in the number of the seen patients and the MAT until the consultations and the complementary tests, especially CT scans and colonoscopies.

Conclusions: With the results of this study we have decided to change the RDC to a Unit of Rapid Diagnosis increasing the human resources to a full-time doctor and nurse and a part-time doctor. This way it will be possible to see three times the number of patients currently attended which will reduce the MAT. We have also improved the MAT for CT scan and colonoscopy.

V-165
CARDIAC AUTONOMIC NEUROPATHY IN PATIENTS WITH PRIMARY HYPERTENSION

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Objectives: Cardiac autonomic dysfunction is one of the important factors implicated in the pathogenesis of primary hypertension. Heart rate variability measurement has been used widely to determine the cardiac autonomic dysfunction. In the present study, it was aimed to establish the heart rate variability in primary hypertensive patients. It was also investigated its relationships with end organ damages due to hypertension and cardiovascular risk factors.

Material and method: Ninety adult patients with primary hypertension and 28 healthy controls were included into the study. Heart rates and heart rate variability parameters (rMSSD: square root of the mean squared differences between successive normal-to-normal (NN) intervals; SDNN: Standard deviation of all NN intervals; SDNN index: mean of the standard deviations of all 5-min NN intervals of the entire recording; SDANN: standard deviation of the averages of NN intervals in all 5-min periods of the entire recording; Percentage of differences between successive RR intervals that are greater than 50 msec) were measured by monitoring with 24 hour holter electrocardiographic records in both the patients and the controls. Retinopathy, microalbuminuria and left ventricle hypertrophy were established in the patients.

Results: As expected, primary hypertensive patients (144 ± 14/89 ± 10 mmHg) had statistically significant blood pressure values than those of the controls (106 ± 10/65 ± 8 mmHg) ($p < 0.001$). When the patients were divided into the two subgroups as being newly diagnosed (n = 45) and previously diagnosed (n = 45), the subgroups were significantly different from each other for their blood pressure levels (149 ± 14 systolic, 93 ± 9 mmHg diastolic in newly diagnosed patients vs 138 ± 13 systolic, 86 ± 10 mmHg diastolic in previously diagnosed patients, $p < 0.001$ for systolic and $p = 0.001$ for diastolic blood pressure). Minimum heart rates of the all patients (46 ± 10 per minute) were significantly higher than those of the controls (40 ± 13 per minute) ($p = 0.017$), while heart rate variability parameters showed significantly lower values in the primary hypertensive patients compared those of the controls (Table 1). The subgroups showed no difference from each other with respect to their demographic, clinic features and studied laboratory results including heart rate variability parameters. The heart rate variability parameters showed no significant correlations with retinopathy, left ventricle hypertrophy and cardiovascular risk factors. However, microalbuminuria had a significant positive correlation with one of the heart rate variability parameters (SDNN; $r = 0.243$, $p = 0.027$).

Discussion: The fact that the lower heart rate variability parameters in the primary hypertensive patients than those of the controls suggests the presence of a cardiac autonomic dysfunction in these patients. However, such a difference was not observed between the newly and previously diagnosed patients indicating that the heart rate variability seems not to be influenced by antihypertensive treatment. Furthermore, except microalbuminuria, hypertensive end organ damages are not related to the heart rate variability.

Conclusions: Finally, the data from the present study suggest that the cardiac autonomic dysfunction may precede the primary hypertension.

V-166
THERAPY WITH EXENATIDE IN PATIENTS WITH TYPE2 DIABETES MELLITUS AND OBESITY

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Objectives: Exenatide (Byetta) is a GLP-1 receptor agonist which increases Insulin secretion from pancreatic β-cells in a glucose-dependent manner; decreases the glucagon secretion, which determines the decrease of liver glucose production and slows the gastric emptying. Aim: to evaluate the efficacy and safety of therapy with Exenatide in patients with type2 diabetes mellitus poorly controlled with oral therapy (metformin ± sulphonylurea).

Material and method: 30 patients (25 females and 5 males), aged between 48-65 years, obese, with type2 DM, with a poor control with metformin ± sulphonylurea, received an additional therapy with exenatide, 5 µg BID 30 days and then 10 µg BID. We evaluated at the beginning and at 6 months of therapy: FPG, PPG, HbA1c, BMI, side effects.

Results: after six months of therapy with exenatide 10 µg BID, HbA1c decreased with 0.9% (from 8.3 ± 0.5% to 7.4 ± 0.4%); FPG decreased from 192 ± 11.2 mg/dl to 168 ± 10.5 mg/dl; PPG decreased from 205 ± 10.2 mg/dl to 172 ± 8.5 mg/dl; average weight loss that we achieved was 2.4 kg. Side effects: 5 patients had mild hypoglycemia, rapidly solved with oral glucose intake, 12 patients presented at least 1 episode of nausea, mild to moderate that disappeared during therapy.

Conclusions: Exenatide (Byetta) improves glycemic control through decreasing postprandial and fasting glucose levels, in obese patients with type 2 diabetes mellitus and promotes weight loss, being well tolerated.

V-167
INTUSSUSCEPTION: NOT ONLY IN CHILDREN

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Objectives: To review patients with intussusception during the last two years, hospitalized in a 3rd level hospital.

Material and method: To describe those patients with the diagnosis of intussusception, on admission in the Internal Medicine Department, General University Hospital of Ciudad Real, during two years. We analyze epidemiological and clinical features.

Results: We included 8 adult patients with a mean age of 56.8 years. Female-male ratio was 1:1. The main clinical features of the study are shown in the table 1. Surgery was the elected treatment in 7 cases (87%). In one case, the intussusception was an incidental finding, and no therapy was required due to its autolimited course.

Discussion: Intussusception is the invagination of a bowel loop, called intussusceptum, into the lumen of the adjacent segment, called intussuscipiens, as a result of peristalsis. This condition is frequent in children. Approximately 5% of all intussusceptions occur in adults and 70-90% of the cases have a demonstrable cause (most frequently malignancies). The routine use of CT for abdominal imaging has increased the detection of transient intussusceptions with no underlying cause. Clinically, intussusception has five modalities: acute (abdominal pain associated or not with an intestinal obstructive syndrome), chronic, persistent, recurrent and transient. In the chronic course abdominal pain, vomiting and nausea are the major symptoms. Computed tomography scan (CT)

Table 1 (V-167)

Patient nº	Sex	Age	Personal history	Main symptom	CT/ECO report
1	Male	32	Traffic accident	Shock	Transiente ileo-ileal intussusception
2	Female	19	Anorexia nervosa	Suboclusive clinic	Jejunum-ileal intussusception related to anorexia nervosa
3	Male	40	Peutz-Jeguers syndrome	None	Polypoid mass that triggers the invagination
4	Female	87	None	Bowell obstruction	Intussusception caused by an adenocarcinoma
5	Male	75	None	Pain and constipation	Ileo-ileal intussusception caused by a adenomatous polyp
6	Male	51	None	Melenas	Ileo-ileal intussusception caused by a adenomatous polyp
7	Female	78	None	Pain and microcytic anemia	Colo-colic intussusception caused by an adenocarcinoma
8	Female	73	None	Intestinal bleeding	Colo-colic intussusception caused by a pedunculated polypoid mass

is the imaging modality of choice. The treatment consists on surgery (resection of the affected area), although conservative therapy is chosen in some cases (intussusception without a lead point).

Conclusions: Intussusception in adults is not common. It is most frequently associated with malignancies, but because of the increased use of abdominal CT, incidental intussusception with a transient course is more common. Surgery is the therapy of choice, although in cases of transient intussusception is not necessary.

V-168
THE VALIDITY AND RELIABILITY STUDY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ASTHMA SLEEP IMPACT SCALE IN THE PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Objectives: Chronic Obstructive Pulmonary Disease and Asthma Sleep Impact Scale is a specific scale determining sleep disorders seen in the patients with chronic obstructive pulmonary disease and asthma. This study was carried out with the aim of testing the reliability and validity of this scale in the patients with chronic obstructive pulmonary disease.

Material and method: The study was carried methodologically on 97 patients with chronic obstructive pulmonary disease applying for Chest Diseases outpatient of Atatürk University Hospital in Erzurum. Questionnaire, St. George's Respiratory Questionnaire, Pittsburg Sleep Quality Index, Chronic Obstructive Pulmonary Disease and Asthma Sleep Impact Scale and pulmonary function tests were used in the collection of the data. Cronbach Alpha Co-efficiency, Sampling Proficiency Analysis and Sphericity analysis of Barlett's Test, Scree Plot Graphics, Komolgorov-Smirnov Test, Factor Analysis, Correlation Analysis and t test were used in the analysis of the data.

Results: It was found out that the distributions of the scale scores were normal, and that Cronbach co-efficiency in reliability analysis was found 0.87. In the article total score analysis, it was found out that each item of the test is in accordance with total test ($r > 0.20$, $p < 0.01$). The single factorial structure of the scale was detected with factor analysis. The range of the scale was found 26. It was also detected that there was correlation between Chronic Obstructive Pulmonary Disease and Asthma Sleep Impact Scale, St George's Respiratory Questionnaire and its subdimensions, and Pittsburg Sleep Quality Index and its subdimensions (except for using sleep medicines) in true way and there was correlation reversely between pulmonary function tests measurements (except for FEV1/FVC). It was found out that the correlation between pre-test of the scale and post-tests measurement results was strong ($r = 0.978$, $p < 0.001$).

Conclusions: In conclusion, it was determined that Chronic Obstructive Pulmonary Disease and Asthma Sleep Impact Scale was a valid and reliable measurement tool in the patients with chronic obstructive pulmonary disease.

V-169
THE PREVALENCE & AWARENESS OF HYPOGLYCEMIC UNAWARENESS AMONG ADULT PATIENTS WITH SIGNIFICANT INSULIN DEFICIENCY IN CENTRAL SAUDI ARABIA

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Objectives: To determine the prevalence of hypoglycemic unawareness in patients with Diabetes who are using insulin.

Material and method: A cross-sectional study was conducted where all eligible patients with Diabetes (who are on insulin) during the month of October of 2011 who attended the Endocrinology clinic were interviewed by a physician using a standardized questionnaire. Patients who have come through to the Emergency Department with a severe hypoglycemic reaction who are known to have Diabetes (and are on insulin) were also interviewed, as well as patients who have taken their insulin prescription from the Internal Medicine clinic - those were phone interviewed. Questions - adapted from a previous study - ranged from basic demographics to insulin regimes plus history of severe hypoglycemic reactions. These questions were aimed at determining the presence or absence of hypoglycemic unawareness. A total of 333 subjects were included in the study.

Results: The prevalence of hypoglycemic unawareness in this interviewed group of patients was found to be 48.9% (p value > 0.05). Interestingly, 69% of patients with end stage renal disease who are on dialysis have hypoglycemic unawareness (p value > 0.05). We have found that 35% of patients with HbA1c of less than 7% had a threshold for hypoglycemic symptoms at 45 mg/dL or less

(this was statistically significant - p 0.022), compared to 28%, and 19.8% for HbA1c values of 7-8% and above 8% respectively. We have also found that 12.5% of patients who are on insulin pump have no feelings of hypoglycemic symptoms whatsoever compared to 5%, and 1.3% in those on aspart & glargine and BID mixed 70/30 Regular/NPH Insulin respectively (significant p value of 0.001).

Conclusions: The calculated prevalence was higher than what previous studies have mentioned – although the result was not statistically significant. This indicates that the phenomenon (of hypoglycemic unawareness) is much commoner than what we may have thought. Identifying, and screening for this phenomenon is crucial to prevent severe and potential life threatening complications in our patient population.

V-170
TRANSFORMED DIFFUSE LARGE B-CELL LYMPHOMA IN A COHORT OF 219 PATIENTS

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Objectives: To assess the frequency of transformation to aggressive lymphoma in an unselected population with low-grade B-cell lymphoma, analyse prognostic variables related to transformation and the response of transformed lymphomas to salvage chemotherapy.

Material and method: Prospective observational study of the cohort of patients with lymphoma diagnosed in our unit (January-1986 to December-2007). Diagnosis of transformed lymphoma was based on pathologic examination of new lymph node biopsy revealing diffuse large B-cell lymphoma in patients with previously known low-grade lymphoma. Variables with potential prognostic implications for the likelihood of transformation and the response to salvage chemotherapy were analysed. Statistical methods: chi^2, Student t test, log-rank test, tables of Kaplan-Meier and Cox multivariate binary logistic and proportional hazard regression.

Results: 219 patients, 109 male and 110 female, with a median age of 64 years (21-88), were studied. Lymphoma subtypes at baseline were: 45 B-chronic lymphocytic leukemia/small lymphocytic lymphoma (BCLL/SLL); 35 lymphoplasmacytic lymphoma (LPCL); 24 marginal zone lymphomas (MZL) and 115 follicular lymphomas (FL). Transformation to DLBCL was ascertained in 22 patients (10%): 8 (36.4% of the processed) from BCLL/SLL; 3 (13.6%) from LPCL; 2 (9%) from MZL and 9 (41%) from FL. The median age of patients with transformed lymphoma was 64 years (43-85). The probability of transformation at 10 years of low grade lymphoma diagnosis was 22% in BCLL/SLL and 16% in the other subtypes (p = 0.05 by log-rank test). No significant prognostic value was found in the variables studied: age, sex, clinical stage, prior treatment with fludarabine (54 patients) or rituximab (79 patients). The median survival probability of the entire cohort was 6.6 years for BCLL/SLL, 7.5 years for LPCL and has not been reached at ten years in FL(median duration of observation:6 years). Complete remission of transformed lymphoma was reached in 13/21 (62%) with salvage chemotherapy, but median time to failure was 5.5 months and median survival 1.2 years. No significant association was found between lymphoma subtype at baseline and the response rate, duration of response or survival.

Discussion: B-BCLL/SLL has been classically associated with transformation to DLBCL (Richter syndrome). The published rate of transformation ranges from 10 to 22% at five years. However, this transformation may also occur in other subtypes of B-cell lymphoma and there are few references about its frequency and clinical outcome. The lower rate in our cohort of patients with BCLL/SLL explain the numerical dominance regarding transformation of the other subtypes set. By contrast there were no differences regarding the response to salvage chemotherapy and survival.

Conclusions: In this cohort of unselected patients with B-cell lymphoma, we have found an increased likelihood of transformation in the BCLL/SLL over the other subtypes of low grade lymphoma, in agreement with previous references. However, a high proportion of transformed lymphoma patients (nearly two thirds) were originally low grade lymphoma subtypes different from BCLL/SLL. The transformation to DLBCL implies poor response to salvage chemotherapy and short survival regardless of the original lymphoma subtype.

V-172
MORBIDITY AND MORTALITY IN PATIENTS ADMITTED WITH EXACERBATION OF COPD. A 12-MONTH FOLLOW-UP

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Objectives: To analize the most important factors on morbi-mortality in patients admitted consecutively due to exacerbation of COPD. To valore the impact in a 12-month follow-up.

Material and method: An observational study conducted between June 2009 and June 2010. Information collected included epidemiological and clinical characteristics, NT-ProBPN levels, cardiologic basic study, lung volumes and sputum culture. Length of stay, mortality and readmission were also collected.

Results: Were included 103 patients (95% men). Mean age was 71.83 (9.3). The GOLD stage III was in 41.3% of patients and 41% in GOLD stage IV. Eighteen patients had ph < 7.35. The sputum were collected in 73 cases and the bacterial species commonly isolated were Haemophillus influenzae in 19.2% and Pseudomona in 12.3%. NT-ProBNP was > 2000 in 16 cases. The length of stay was 5.74(3.4) and the in-hospital mortality rate was 2.9%. Heart failure was present in 15.5% of patients. At 12-month follow-up mortality rate was 16.35% and the readmission rate was 67.34% (32.7% early readmission). BODE index (> 5), ph < 7.35, FEV1, isolation of Pseudomona were the significant factors to readmission. The mortality was higher in patients with cardiopathy, GOLD stage IV and ph < 7.35.

Conclusions: 1. The most important factors with impact on morbi-mortality were: FEV1, ph < 7.35, BODE index, isolation of pseudomona and presence of cardiopathy. 2. The mortality rate was lower (16.35%) to the detriment of higher readmission rate (67.34%).

V-173
ANALYSES OF EARLY METABOLIC CHANGES IN OBESE PATIENTS AFTER BARIATRIC SURGERY

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Objectives: The aim of this study is to evaluate the clinical characteristics and the short-term results of bariatric surgery for the treatment of morbid obesity.

Material and method: Retrospective review of a prospectively maintained database of obese adult patients (at least 18 years of age) with body mass index (BMI) greater than 35 kg/m^2 who underwent elective bariatric surgery from October 2010 to November 2011 in the University Clinical Hospital of Salamanca.

Clinical review was performed before surgery and all patients were reassessed at 3 months after surgery, the anthropometric data and blood samples were collected at baseline (preoperatively) and 3 months after surgery.

Results: A total of 17 patients were included in the present study, 12 were female and 5 were male. The mean patient age (standard deviation) was 45 (12.5) years, mean preoperative BMI, weight, fasting glucose, cholesterol and triglycerides levels, was 49 ± 6.3 kg/m^2, 132.16 ± 13 Kg/m^2, 111.5 ± 47 mg/dL, 199.86 ± 38.6 mg/dL y 135.7 ± 57.3 mg/dL respectively. At 3 months, mean BMI was 9.93 kg/m^2 and weight loss was 26.6 ± 6.6 Kg. Fasting glucose was reduced by 26.3% and triglycerides levels by 20.7%. The rest of the characteristics of the patients are shown in table 1.

Discussion: Obesity is a worldwide public health problem due to increasing prevalence and associated co-morbidities. Bariatric surgery is the most effective treatment for reducing weight among morbidly obese patients. Recent studies have even shown remission rates of type 2 diabetes mellitus in severely obese patients up to 75% at 3 years. The results of our study are similar to the results described in the literature, which is a clear association of bariatric surgery with improved glycemic profile, as well as a decrease in triglyceride levels.

Conclusions: Bariatric surgery is an effective treatment for weight reduction in morbidly obese patients, achieving a weight loss of around 20% in the first three months, while promoting an improvement in the metabolic profile with reduction in fasting glucose and triglyceride levels. Further efforts are needed to confirm the long-term metabolic benefits of bariatric surgery.

Table 1 (V-173). Characteristics of the patients at baseline

Characteristics	Nº of patients (%) (N = 17)
Obesity onset	.
Age 10-19 years	4 (11)
Age 20-30 years	8 (47)
Hypertension	8 (47)
Dyslipidemia	3 (17.6)
Cardiovascular disease	0
Diabetes mellitus	4 (23.5)
Smoker	8 (47)
Obstructive sleep apnea	9 (53)
Hepatic steatosis	6 (35.3)

V-174
INTERCONSULTATION CASES TARGET TO INTERNAL MEDICINE (IM) FROM OTORINOLARYNGOLOGY SERVICE (OS) ANALYSIS

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Objectives: Analyze and identify characteristics of cases target to IM from OS during six months, and their main reason for consultation.

Material and method: Review of interconsultation register from IM Clinic Management Unit during six months of 2011. Descriptive retrospective study, there were reviewed inter consultation cases from patients hospitalized in OS. Studied variables: number of inter consultations, patient basic profile, nature and reason for consultation.

Results: There were analyzed 16 interconsultation cases. Age between 18 and 75 (men 11, women 5). Nature ordinary 14 (87.5%), urgent 2 (12.5%). Reason for consultation: therapeutic tackle ACVE assessment, sepsis, low conscious level and HTN 2 (12.5%) respectively. Miscellany: edema, hyperglycemia, EAP and discomfort 1 (6.25%) respectively.

Discussion: Inter consultation cases target to IM from OS are the second more frequent after General Surgery in our center. Their nature used to be ordinary. Age between 18 and 75. Most men (considered smoking). Wide kind of reasons for consultation, but associated to high comorbidity patients.

Conclusions: Clinic management carried by IM professional makes him able to make preventive and therapeutic assessment from patients on post-surgery period. Actually it is increasing the number of patients with comorbidities having a surgery, and the indication for surgery is based on life quality and not on patient's age, as it was before, where the internal medicine professional is essential to manage this kind of patient profile.

V-175
RESULTS OF THE ACTIVITY IN A SHORT STAY EMERGENCY UNIT DURING A HIGH ATTENDANCE PERIOD

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Objectives: This study describes the health-care activities in a Short Stay Medical Unit (SSMU) of the Hospital Universitario Virgen de las Nieves, which is a tertiary care centre providing health-care services to the northern area of Granada.

Material and method: A study of a series of cases including all patients admitted to the SSMU (which is equipped with 15 beds) has been carried out during a period of high hospital attendance, from January to March 2012. A descriptive analysis of the patients admitted was performed based on the following parameters: age, sex, comorbidity (i.e. coexistence of two or more chronic diseases that involve the occurrence of exacerbations and interrelated diseases), primary diagnosis, readmission within a month after discharge, and discharge destination. The statistical analysis software SPSS 15.0 was used to perform the analysis.

Results: 139 patients with a mean age of 71.43 (SD 17.91) were included in the study. Out of these, 73 were men (52.5%) and 66 were women (47.5%). There were 90 cases of comorbidity (64.7%). The average length of stay in days was 2.46 (SD 1.09). The most frequent main diagnoses were respiratory infections including community acquired pneumonia (30.21%), decompensated heart failure (24.46%) and the worsening of chronic obstructive pulmonary disease (COPD) (14.4%). 73.4% of the patients under study (102) were discharged home for outpatient follow-up. The rest were transferred to other services (mainly Internal Medicine and Pulmonology) due to the absence of improvement of the condition leading to their admission, or to the presence of a new diagnosis. The readmission rate within a month after hospital discharge was 11 patients (7.9%).

Discussion: Over the past few years, the SSMU has acted as an alternative to conventional hospitalization, with good results in different series, lowering the income rate on other services. The highest percentage of transfers to other services if compared to other series could be related to the comorbidity of patients. It is therefore important to establish admission criteria for the selection of patients to enhance the profitability and dynamics of the unit.

Conclusions: The SSMU is an effective and efficient alternative to conventional hospitalization. Its implementation on a continuous basis throughout the year, rather than during periods of high attendance only, should therefore be considered.

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DIFFERENCES BETWEEN CANCER PATIENTS DIED IN HOSPITAL OR AT HOME

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Objectives: The aim of this study is to describe the profile of cancer patients dying at home or in hospital and determine the most relevant differences between groups.

Material and method: This is a descriptive and retrospective study. We selected cancer patients died in the Internal Medicine department of the hospital of La Serrania from November 2009 until January 2011, and the patients died at home from June 2011 until January 2012. The variables analyzed were sex, age, diagnosis, treatment received, time since last chemotherapy, followed up by the support team of palliative care and cause of the death. Quantitative variables were summarized using mean and standard deviation and categorical variables as frequencies and percentages. We considered statistically significant when the p value was less than 0.05.

Results: We included a total of 124 patients, of whom 48 (38.7% had died at home and 76 (61.3% in hospital). Those died in the hospital were aged 68 ± 13.25 years, 68.4% were male, the most common tumors were lung (25%), digestive (23.7%), colon (14.5%) and other (36.9%). A 34.2% died were diagnosed in the same income who died. 38.2% received chemotherapy, 37.9% received chemotherapy in the month prior to death. Only 17.1% was assessed by the Palliative Care Unit, and 72.4% died of tumor progression. The deaths at home were aged 71.5 ± 13.44 years, 50% were male, the most common tumors were lung (31.3), digestive (27.1%),gynecological (14.6%) and others (27.2%). A 54.2% received chemotherapy, 50% received chemotherapy in the month prior to death. 100% was assessed by the Palliative Care Unit, and 100% died of tumor progression. When comparing both groups, we observed that died in the hospital had not been followed up by the Palliative Unit and that chemotherapy died at home in the last month by 50%, being statistically significant (p = 0.0001 p = 0.004 respectively).

Discussion: With the results, we observed that patients who die in hospital are younger and are in charge of Oncology, while those who die are somewhat higher hospital and are under the care of the Palliative Care Unit. Both groups are in a high percentage in the month prior to death, which runs counter to the growing interest in the care and palliation of cancer patients.

Conclusions: A high percentage of patients with advanced cancer receiving chemotherapy in the month before his death and usually die at home. Patients who die in our service do not usually have ambulatory monitoring by the Palliative Care Unit.

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OUT-OF-HOSPITAL CARDIOPULMONARY ARREST: A MEDICAL EMERGENCY TEAM EXPERIENCE

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Objectives: This study aimed to describe the out-of-hospital cardiopulmonary arrests (CPA) occurring in a Medical Emergency Team (MET) coverage area.

Material and method: Retrospective study of all CPA in an out-of-hospital environment on a two year period (between 1 January 2010 and 31 December 2011) and in which the National Medical Emergency Service (112) and our MET were activated. Data were collected from the MET clinical records concerning the time between collapse/distress call and beginning of advanced life support (ALS) maneuvers, time to recovery of spontaneous circulation (ROSC), CPA cause, comorbidities and outcome.

Results: Over a coverage area of 895 square kilometers with 339,725 inhabitants, there were a total of 3,239 MET activations, 647 (19.9%) of which were CPA, corresponding to an annual incidence of 95.1 cases per 100 000. The average time between MET activation and arrival on scene was 11.4 minutes [SD 5.2]. In 34.0% (n = 220) of the patients was attempted resuscitation with ALS. In those whom ALS maneuvers were initiated, the mean age was of 63.6 years [SD 17.7] and 52.2% were male. The first identifiable rhythm was asystole/pulseless electrical activity in 76.3% of cases and ROSC occurred in 39 cases. The average ALS time until ROSC was of 12.9 minutes [SD 2.9]. Only three patients were discharged from the hospital and all survived after 6 months.

Discussion: Of those patients which suffered an out-of-hospital CPA, only a third was considered for ALS. ROSC occurred in a small fraction of cases. The data presented are similar to those described in literature.

Conclusions: CPA approach remains a challenge and its good outcome depends not only on a fast recognition of the severity of the situation but also on an adequate response from the MET.

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KNOWLEDGE AND PRACTICE OF INSULIN THERAPY ADJUSTMENT OF INPATIENTS BY MEDICAL RESIDENTS AT VARIOUS LEVELS OF TRAINING AT DIFFERENT TRAINING INSTITUTIONS OF RIYADH

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Objectives: To evaluate medical resident's knowledge about the prevalence of diabetes mellitus in their own patients, the targets blood sugar in different clinical states e.g. with infection, stroke, and acute coronary syndrome etc, the thresholds when residents should start patients with diabetes on intravenous insulin, the resident's knowledge of target HbA1c and recommended HbA1c follow-up intervals and to assess their perceived potential methods of intervention to improve inpatient hyperglycemia care.

Material and method: The study was conducted as a cross-sectional design through self-administered questionnaires distributed to internal medicine resident physicians at various levels of training at different hospitals in Riyadh.

Results: Total number of medical residents involved in the study is 198 residents from 7 training hospitals in Riyadh. Male gender comprised 69.8%. R1 residents comprised 40.2%, R2 21.7%, R3 and R4 19.1% of participants each. The commonest estimate of in-patient diabetes prevalence was between 40-60% (35.5% of respondents). Percentage of residents who quoted the wrong recommended glucose range for patients with acute infection, acute stroke, acute coronary syndrome, perioperative patients, medical ward patients, and critical patients in medical or surgical intensive care units ranged between 36-52 percent of respondents. Confidence (total familiarity) in the management of hyperglycemia, hypoglycemia, and use of subcutaneous or intravenous insulin orders ranged between 41-62 percent of respondents. Confidence in managing diabetic ketoacidosis was quoted by 52.4% of residents. 24.9% of residents quoted the wrong hemoglobin A1C target level and 21.7% the wrong interval for repeat testing. Full awareness of recommended interventions to improve glycemic control in the hospital setting was noted in 18.5% of respondents.

Conclusions: Theoretical and practical knowledge for the care of patients with diabetes is suboptimal in this cohort of medical

residents. These may result in poor patient care with its antecedent effects on morbidity, mortality and cost.

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HEMATHOMAS OF THE ABDOMINAL WALL (HAW) IN AN INTERNAL MEDICINE WARD

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Objectives: Hemathoma of the abdominal wall is an infrequent clinical entity. It is usually associated with patients undergoing anticoagulant therapy. The objective of this study is to describe patients diagnosed with hemathoma of the abdominal wall in our service.

Material and method: A retrospective analysis of patients diagnosed with hemathomas of the abdominal wall over the past 1 year in the internal medicine ward in our center. We review the etiology, precipitating factors, diagnosis, treatment and evolution of this clinical entity.

Results: A total of 16 patients (62% women) with mean age of 77 (SD ± 6.15) years were included in the study. In 56% of the cases the HAW was the cause of hospitalization. Therapy with oral anticoagulant was documented in 43.8% of patients, with any type of LWMH in 50% (in prophylactic or anticoagulant regimen) and with antiaggregant therapy in 37.5% of them. Chronic renal insufficiency was documented in 37.5% of cases. In the group receiving oral anticoagulants (OA), 85% had INR greater than 4. Paroxysmal cough appeared in 31.3% of cases. The most common presentation was abdominal pain and palpable mass. In 62% of patients the hemoglobine fell more than 2 points and a transfusion of more than 2 hemathies units was needed in 60% of these patients. A total of 37.5% of patients needed a transfusion. Ultrasonography was the image test performed more frequently (68%). The most common location was the anterior rectum muscle in 68.8% of patiens. Treatment was conservative in all of the cases. The average stay was 25, 63 (SD ± 13.69) days. Two patients died because other causes than the HAW.

Discussion: All patients were receiving some antiaggregant or anticoagulant therapy at the time of diagnosis, and 85% of the oral anticoagulant receivers had a high INR. Almost 40% of the patients needed a transfusion.

Conclusions: We observed a high incidence of HAW between our inpatient. HAW appears in older people with excessive anticoagulation therapy and with high transfusionals needs. We must be aware of the correct anticoagulation indication and the adequate dosis and monitoring in this older population.

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FEATURES, RESOURCES USED AND ATTITUDE TO TAKE IN PATIENTS DISCHARGED FROM HOSPITAL EMERGENCY SERVICE IN ZAMORA

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Objectives: To describe sociological features, diagnostic resources used and therapies prescribed to patients attended at Hospital Emergency Service in Zamora.

Material and method: Retrospective, observational and descriptive assessment of 100 randomized patients attended at Hospital Emergency Service in Zamora and later discharged, on date 28 May 2012. The following variables were assessed: gender, age, place of living, previous evaluation by community health workers, period of symptom evolution, complementary diagnostic imaging and blood tests, chief complaint, assessment by other Medical Specialties, prescribed therapies and destination after discharge.

Results: Women (58%), and patients in their seventies (17 individuals) were those who predominantly needed attention. 54% from rural origin. 66% of individuals attended visited the Emergency Service without previous assessment by community health workers. Symptoms which caused our patients' visits had an evolution time over seven days in 19% of cases. 50 patients needed no blood test, while 68% of people attended required diagnostic imaging (Computerized Axial Tomography, plain X-ray and/or ultrasonography). Pain turned out to be the chief complaint which caused highest number of attentions (58%), in 55% of patients assessed pain relievers were prescribed at discharge, mainly acetaminophen. 19% of cases needed no new additional drugs. During their stay at Emergency Service 44 patients were evaluated by different specialties, mainly Internal Medicine (31% of total assessments), and 71% were referred to their Primary Care doctor.

Discussion: Since Spain´s Health Care System is an universal one, offering sanitary attention at different service levels, with almost immediately access to all them, in recent years a mostly unjustified, significant rise is found regarding visits at Hospital Emergency Services as first care level, thus leading to overloading in addition to a trend towards so-called "Defensive Medicine", that make professionals opt for urgent diagnostic tests which become not necessary if proper observation and follow-up were implemented at other levels.

Conclusions: Patients visit Emergency Service as first health care level in a significant proportion. Periods of symptom evolution over 24 hours constitute a great amount of cases. Pain was often a chief complaint, and pain-scale first-step relievers were those drugs mostly used. Internal Medicine was the Specialty with highest number of pre-discharge assessments performed in our Institution.

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FEATURES OF ONCOLOGICAL PATIENTS ADMITTED AT INTERNAL MEDICINE

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Objectives: Description of features showed by oncological patients admitted at Internal Medicine Department of Zamora's Virgen de La Concha Hospital.

Material and method: Descriptive, observational and retrospective assessment of 100 randomized patients with known diagnosis of tumoral condition and on follow-up by other Specialties, who were admitted at Internal Medicine Department of Zamora's Virgen de La Concha Hospital during year 2011. The following parameters were assessed: gender, age, tumoral condition cause of follow-up by other Medical Specialties, past therapy undergone and current one, time from last dose administered, diagnosis at discharge from our Department, Specialty referred to for follow-up, and length of hospital stay.

Results: From 100 patients assessed, 53% were males, global mean age was 70.3 years. Breast-origin neoplasms were those most frequently admitted (25%), and neutropenic fever was predominant diagnosis (26%). 83% of patients had chemotherapy during any stage

of their condition and 51% had been received antineoplastic drugs during last 21 days before admission. 67 patients were referred to Medical Oncology Department at discharge and mean length of hospital stay was 9.4 days.

Discussion: In recent years a significant rise of neoplastic conditions has been observed, and thanks to different available therapies an increment of life expectancy has been achieved for those patients. Therapies used often result aggressive, thus leading to not infrequent rate of complications, in some cases deadly events. On the other hand, in spite of treatment effectiveness, sometimes the neoplasm continues its growth, leading to other clinical features.

Conclusions: Our series shows high mean age of patients. Neutropenic fever was the most frequent complication linked to chemotherapy. Most patients were on active oncological treatment. Breast cancer was the most frequent neoplasm. Medical Oncology as main referral Service at discharge.

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DOLICHOESCTASIA VERTEBRO-BASILAR: THREE FORMS OF PRESENTATION

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Objectives: We describe three clinical forms of presentation of vertebrobasilar doliechoectasias, from three cases in a community hospital.

Material and method: -Review of three case reports, with the diagnosis of vertebrobasilar doliectasias in admitted patients in Internal Medicine at Terrassa's Hospital, from october/2009 to novembre/2011. -Review of the literature.

Results: Two of them were female. Aged between 74-79 years. The predisposing factors were: age, hypertension (diastolic pressure) and dyslipidemia. The diagnosis was made by neurological clinical and angio-MRI.-In two of the three patients the clinical presentation was the result of compressing structures of the central nervous system: fifth cranial nerve (neuralgia) and central vertigo syndrome. In one patient the presentation was transitory ischemic stroke. Two patients also showed of the dilatation thoracic aorta aneurysmal, without symptoms. Two of the three patients were sudden death of unknown cause.-Finally one of the patients showed aneurysmal basilar thrombosis and dissection.

Conclusions: Although the literature indicates that most of the vertebro basilar dolichoectasias also asymptomatic and are described as radiological finding, we present three symptomatic cases. The clinical presentation are the following location ischemic, compressive syndromes and intracranialhemorrhage. In our patients exist an association between the presence of hypertension, vertebro basilar dolichoectasias and aneurysmal dilatation in different vascular territories. In the literature there is no consensus on therapeutic options. The symptomatic dolichoectasias have a high mortality.

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SKELETAL DISEASE EVALUATION IN PATIENTS WITH GAUCHER DISEASE

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Objectives: Our objective is to quantify skeletal disease in patients diagnosed with Gaucher disease and evaluate medium-term progression.

Material and method: This is an observational and descriptive study to analyze skeletal disease in three patients with Gaucher Disease (GD) with imaging tests mainly: magnetic resonance imaging (MRI), Dual-Energy X-ray Absorptiometry (DEXA), and X-ray. Clinical manifestations, biochemical and metabolic biomarkers were also used.

Results: Three patients with GD are being followed in our Internal Medicine Department during the last seven years. Two of them (Patient 1 and 2) are receiving treatment with enzyme replacement therapy (ERT). Besides, two of them (patient 1 and 3) present severe skeletal disease and needed hip replacement with prosthesis. Patient 1 is a 49 years old male. Since 2008, he is receiving ERT and he was diagnosed with severe skeletal disease that needed replacement of his right hip with a prosthesis. He has being monitored with DEXA and MRI annually. DEXA results reveal progressive bone density loss on lumbar spine and femoral neck (T-score -2.6 in 2009, -2.9 in 2010 and -3.1 in 2011) with definite diagnosis of osteoporosis. MRI shows a bone marrow without infiltration and minimal hipointensity T2 signal at L2. MRI did not show changes in the last 3 years. In this patient we meassured also chitotriosidase activity, marker of alternative type of macrophage activation overeexpressed by the Gaucher cells. Its activity has gradually decreased after ERT with initial level of 12.000 nol/mlxh to almost undetectable levels after three years of treatment. Patient 2 is a 47 years old female. She is receiving ERT since year 2010 and she has never shown skeletal manifestations. Radiology evaluation revealed osteopenia of the lumbar spine. Patient 3. 73 years old male. He is not receiving any treatment nowadays. He presents skeletal disease with bone marrow affectation at the last MRI and osteopenia at femoral neck (T-score -2.4) and lumbar spine (T-score -1.6).

Discussion: Gaucher disease is an inborn error of metabolism that affects the recycling of cellular glycolipids because an autosomal recessive disorder due to mutations in the glucocerebrosidase (GBA) gene located on chromosome 1q21. GD results from deficiency of this lysosomal enzyme GBA and leads to accumulation of glucocerebroside and other glycolipids within the lysosomes of macrophages. Classically, GD has been classified in three sub-types (1, 2 and 3). Type 1, which is the nonneuronopatic form is the most common in adults. Clinical manifestations result from accumulation of the lipid-laden macrophages in the tissues: spleen, liver, bone marrow, bone, etc. Skeletal disease is characterized by diffuse bone pain, sometimes painful crises that often results in osteonecrosis, osteolytic lesions, pathologic fractures and other manifestations associated with low bone mineral density. The basic goals of treatment are elimination or improvement of symptoms, prevention of irreversible damage, and improvement in the overall health and quality of life. In skeletal disease, ERT may slow or prevent progression of skeletal complications (osteonecrosis, osteosclerosis, fractures). The objective in adults is to increase trabecular bone density in 3-5 years. In this study, we can appreciate a significant improvement of bone pain and bone crisis in the first two years treatment with stabilization of skeletal disease at the radiologic following.

Conclusions: 1. Evolution of skeletal disease is not predictable in GD patients, even in comparison with other GD patients. 2. Skeletal disease quantified by radiologic tests, biomarkers and genetic studies is not totally concordant with the clinical manifestations bone-related. 3. Skeletal disease evolution after ERT needs to use several markers and studies (clinical, radiology, biomarkers, quality of life) for a correct assessment of patients.

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LEUKOCYTE POPULATIONS AND LYMPHOCYTE SUBPOPULATIONS IN BRONCHOALVEOLAR LAVAGE FLUID OF PATIENTS WITH LUNG TRANSPLANTATION

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Objectives: The characterization of leukocyte populations and lymphocyte immunophenotype in bronchoalveolar lavage fluid, have been postulated as a potential tool in the diagnosis and monitoring of chronic rejection in patients with lung transplantation. The aim of this study is to analyze changes in the bronchoalveolar lavage cellularity in different clinical settings in patients with lung transplantation.

Material and method: We included 105 bronchoalveolar lavage fluid samples of 13 patients transplanted between 2000 and 2007 at Hospital Universitario Puerta de Hierro. We reviewed the clinical history and collected, on the date of each sample, the indication of the study, the microbiological and histological results, BAL leukocyte counts and the definitive diagnosis. The cellular content of the BAL fluid was incubated with a combination of fluorochrome-labeled monoclonal antibodies directed against surface antigens, and the different leukocyte and lymphocyte subpopulations were analyzed by flow cytometry. Statistical analysis was performed using the Student's t to compare the means of quantitative variables for independent samples. We used SPSS 15.0 and were considered significant probability value less than 0.05.

Results: The main indication for the study of leukocyte populations in the BAL fluid was the fall in pulmonary flow. Thirty-seven BAL fluids from 8 patients were collected at the time of chronic rejection. Patients with bronchiolitis obliterans (BOS) showed an increased percentage of neutrophils (p = 0.01) along with a decreased percentage of CD4+ T lymphocytes (p = 0.02) when compared with patients without chronic rejection (21.5 ± 24.1 vs 10.8+/-10.8 and 27.1 ± 19.6 vs 35.6 ± 17.8 respectively). An inverted CD4/CD8 ratio was found in patients with CMV infection (n = 20), while it is normal in patients without this diagnosis (0.76 ± 0.86 and 1.4 ± 1.97; p = 0.02). Although the mean percentage of NK cells was higher in patients with CMV infection (13.01 ± 11.9%) than in uninfected patients (8.61/-7.42%), the difference did not reach statistical significance. NK cells tended also to be decreased in the BAL fluid (p = 0.08) of patients with acute rejection (n = 28), diagnosed by transbronchial biopsy.

Discussion: Although it is accepted that BOS has an immune basis, this condition occurs in the presence of aggressive immunosuppression regimens, and responds poorly to the intensification of it. Innate immunity has attracted particular attention in this regard, since their mechanisms are independent of T responses. Thus, the focus is on two major components of natural immunity: neutrophils and NK cells, based on different observational studies in which have been identified on the site of injury. At this regard we have found a higher percentage of neutrophils in BOS. NK cell counts were also increased in patients experiencing chronic rejection and CMV infection, although the differences did not reach statistical significance accordingly to other findings described in the literature. In the other hand, a significant decrease in the percentage of CD4+ T lymphocytes in patients with chronic rejection and CMV infection was found, probably reflecting immune system activation in lung tissue of these patients.

Conclusions: The analysis of percentage counts of leucocyte populations in the BAL fluid from patients with lung transplantation could be considered an accessory tool in the diagnosis of chronic rejection and CMV infection.

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RENAL IMPAIRMENT DOES NOT AFFECT THE GLYCAEMIC EFFICACY OR SAFETY OF LIRAGLUTIDE TREATMENT IN PATIENTS WITH TYPE 2 DIABETES

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Objectives: To investigate the effect of renal impairment (RI) on the efficacy and safety of liraglutide in patients with T2D.

Material and method: Data from 0–26 wks were collected from 7 clinical trials in the liraglutide development programme and used for a meta-analysis. Patients were classified into categories of renal function/impairment (normal [> 90], mild [< 90] or moderate [< 60 mL/min]) using the Cockcroft-Gault formula to estimate serum creatinine clearance [eCrCl]. Changes in A1c, serum creatinine (Cr) and rates of hypoglycaemia in each eCrCl category during treatment with liraglutide (1.2 and 1.8 mg) and placebo were analysed using ANCOVA, with trial treatment (± metformin), and interaction between treatment (placebo, 1.2 and 1.8 mg liraglutide) and baseline eCrCl as fixed effects. Baseline A1c or Cr were used as covariates in the analysis of A1c and Cr changes respectively.

Results: Over 26 wks, patients receiving either dose of liraglutide had greater A1c reductions than those receiving placebo (Table 1). No significant differences in A1c reduction were observed between any of the renal function categories. Overall, changes in Cr were small (-4.82 to 6.08 µmol/L), however, Cr significantly improved in patients with moderate RI receiving 1.8 mg liraglutide (treatment difference vs placebo -10.90 µmol/L, p < 0.001). In patients with moderate RI at baseline improvements in renal function (mild after 26 wks) were seen in all treatment groups (liraglutide 1.2 mg: 16%; 1.8 mg: 38%; placebo: 18%). The rate of major hypoglycaemia was low in this study (0 to 0.25%) and the rate of minor hypoglycaemic episodes, in each treatment group, were lower in patients with RI compared with those having normal renal function.

Discussion: In T2D patients with concomitant mild to moderate RI, glycaemic efficacy of liraglutide is similar to those with normal renal function, even in those with the greatest RI at baseline. The fact that liraglutide is completely degraded in vivo and is not excreted via the kidneys could explain this finding. However further studies are needed to fully characterize the efficacy and safety profile of liraglutide in patients with RI.

Table 1 (V-186). A1c changes in patients with normal or impaired renal function treated with liraglutide (1.2 and 1.8 mg) or placebo

Mean A1c reduction% (SE)	Normal renal function	Mild RI	Moderate RI
Liraglutide 1.2 mg (N = 1117)	N = 770 –1.07 (0.04)	N = 222 -1.14 (0.07)	N = 35 -1.18 (0.17)
Liraglutide 1.8 mg (N = 1583)	N = 1095 –1.20 (0.03)	N = 327 -1.16 (0.05)	N = 40 -1.28 (0.16)
Placebo (N = 524)	N = 396 -0.05 (0.05)	N = 88 -0.20 (0.11)	N = 14 -0.01 (0.26)

Conclusions: Liraglutide use in patients with RI is not associated with an increased risk of hypoglycaemia and appears to be an effective and well-tolerated antidiabetic treatment for patients with T2D and mild/moderate RI.

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EFFICACY OF BASAL-BOLUS REGIMEN VS SLIDING SCALE BASIS IN INPATIENTS WITH HYPERGLYCEMIA AT THE HOSPITAL SANTIAGO APOSTLE DE MIRANDA DE EBRO AND FOLLOW-UP AFTER DISCHARGE (INDIGO STUDY)

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Objectives: To determine if the Basal-Bolus regimen achieves a better or equal glycemic control rather than the sliding scale basis in patients with hyperglycemia hospitalized by any reason.

Material and method: Epidemiological, retrospective, unicenter, observational study at the Internal Medicine Department in inpatients at the Hospital Apóstol Santiago de Miranda de Ebro (Burgos), conducted within the usual clinical practice conditions. (approved by the IEC of Burgos Ref CEIC 986). Data from 174 patients with hyperglycemia defined as glycaemia over 180 mg/dl at hospital admission or diabetic type 2 patient hospitalized by any reason and also requiring insulin treatment to achieves the proper control were included. 39 patients (22.4 %) were on sliding scale basis while 135 (77.6 %) were on basal-bolus regimen.

Results: The mean age of the patients included was 72.0 years. A significant reduction on the glycemia during hospitalization as primary objective study was achieved within the basal-bolus group from 164.3 to 131.2 mg/dl ($p < 0.001$) while not within the sliding scale group (from 137.4 to 130.9 mg/dl, $p = 0.530$). There were not significant differences between both groups for the glycemia value. Significant differences were not observed neither in number of days until glycemic control achieved 4.7 vs 5.2 days ($p = 0.190$) nor in the number of hospitalization days. Regarding the number of hypoglycaemias this could not be evaluated as these were not properly collected within the sliding scale group because of the retrospective design. A reduction on HbA1c after 4 months from the discharge from the HbA1c at admission was observed within the basal-bolus group from 8.0 % to 7.3 % ($p < 0.005$). This reduction was not significant within the sliding scale group 6.6 % to 6.5 % $p = 0.348$. There were significant differences between both groups regarding the value of HbA1c that may be led by the basal–bolus regimen use in those patients with a worse basal situation.

Conclusions: The results obtained in the study reveals that the use of the Basal-Bolus regimen for the treatment of the hyperglycemia in inpatients is a suitable option that obtains a significant decrease in the values of basal glycemia during the hopitalization. A trend to use this regimen of treatment in patients who did present a worse glycemic control at admission time was observed as they had got a worse glycemia and HbA1c values that indicates inadequate control during the last 3 months. Finally we noted that after at least 4 months from the discharge there was a significant improvement in the values of HbA1c within the group of patients treated with Basal-Bolus regimen during hospitalization.

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BURNOUT SYNDROME IN RESIDENT MEDICAL DOCTORS IN GRANADA: TWELVE YEARS LATER, WE ARE STILL THE SAME

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Objectives: Compare the percentage of residents in Granada with burnout syndrome in two samples one in 1997 and the second in 2010.

Material and method: We used data collected from May to June 1997 and 2010 from San Cecilio and Virgen de las Nieves Hospitals concerning medical residents working in these two centres. Participants were invited to answer questionnaires by email or by personal interview. We proposed them to take two tests; Maslach Burnout Inventory scale (MBI) and a second one that had been specifically designed for this purpose and that tried to analyze demographic data, related with the resident specialty and their specific activities due with it, including questions that could be related with items of burnout syndrome. MBI questioner asses three of the dimensions of burnout syndrome; emotional exhaustion (EE), depersonalisation (DP), personal accomplishment (PA). EF measures emotional overload feelings. DP measures absence of feelings, impersonal reactions with patients and PF measures competitive attitude and assess achievement of goals. Presence of burnout it's considered when EF ≥ 19 and DP ≥ 6, with low punctuation in PF. High level of wear it's considered when EF ≥ 27, and DP ≥ 10. For the statistic analysis we used PASW Statistics 17.

Results: A total of 61 medical interin residents answered both questionnaires (33% men y 66% women), for 2010 results and 45 of 1997 results (44% men and 55% women). Mean age was 28 years in both groups. 82% respondents in both periods presented moderated to high punctuations for EE and/or DP. We found high burnout levels in 54% of the participants analyzed in 2010 and 62% in 1997 sample. There was no statistic difference found for these results ($p = 0.5$). No differences found either for sex distribution. From those residents that presented burnout syndrome 35% had stable partnership in 1997 and 70% in 2010, ($p = 0.002$). We would like to underline the high punctuation in EE that presented women in 2010 sample when compared with the ones obtained for men ($p = 0.040$). For those with children punctuation in DP were lower in this sample ($p = 0.039$). These differences were not founded in 1997 sample.

Conclusions: Medical residents that are affected by burnout syndrome in Granada had suffered no change in the last twelve years. According with our data more than half of the participants present high wear level.

V-189
APPROPRIATENESS OF HOSPITAL STAYS IN AN INTERNAL MEDICINE SECTION

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Objectives: To determine the number of inappropriate stays generated by patients admitted through an internal medicine section over a 1-year period and to identify the causes of those stays.

Material and method: A representative sample of hospital stays corresponding to patients admitted by the internal medicine section

at Hospital Reina Sofia, Cordoba, Spain, in 2011 was analyzed using the Appropriateness Evaluation Protocol (AEP). These were achieved at 5 check points during this year. The review was conducted by 2 nurses who belong to the internal medicine section and a stay was considered to be appropriate when there was at least one criteria positive of AEP.

Results: The sample included 146 patients, 51.2% of whom were women with an average age of 83.5 (DS 8) years. Of the 1035 stays analyzed, 1000 (96.6%) were judged to be appropriate and 35 to be (3.39%) inappropriate. The most common reason for inappropriate stays was a delay in receiving the results of laboratory tests (48.57%), non-working days (28.54%), delays in performing diagnostic tests (11.45%) and others reasons for inappropriate stays (11.44%). The main justification for appropriate stays was the need for parenteral treatment (100%).

Discussion: The rate of inappropriate stays was low, in spite of the fact that the group studied was elderly patients. The main causes for inappropriate stays were delays in receiving and performing diagnostic tests. We were surprised because social causes were very low for inappropriate stays.

Conclusions: The rate of inappropriate stays was low in comparison with other studies. The majority of inappropriate stays were attributed to delays in performing diagnostic tests and receiving results.

V-190
IN HOSPITAL MORTALITY RETROSPECTIVE ASSESSMENT IN A GENERAL HOSPITAL

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Objectives: To analyze the epidemiological characteristics the exitus of our center in a certain period of time.

Material and method: Retrospective study of 151 patients in which age, gender and cause of deaths are assessed. The study included patients who died in our hospital between 1/1/11 and 15/9/11. These patients had admitted in the short stay unit and internal medicine wards.

Results: The following results were obtained: 54.6% were male. Mean age at death was 82.71 yr-old. Table 1 shows the age distribution of patients. The main causes of death are: respiratory (failure, infectious, aspiration pneumonia), cardiac (acute or chronic heart failure, acute pulmonary edema, acute coronary syndrome), oncological, neurological (stroke, neurodegenerative disease), urinary tract infections and liver failure. In the analyzed period, 2,280 discharges were made. 6.62% of patients died in that period.

Discussion: As in other series reviewed, in our hospital there is a male predominance death rate, with a greater life expectancy in women compared to men. There is no significant difference in the cause of death. Being hospital mortality one of the main clinical quality indicators, this can be used as tool for hospital planning and management. Therefore, it has been used in several studies to assess this and to be able to compare global and adjusted mortality and to develop means to allow direct hospital comparison (benchmarking) Clinical history auditing is basic to identify deficiencies in hospital care. This can allow to identify failing points and to create the means to avoid them. Post mortem studies can offer the possibility of clinical development, but there is a gradual reduction in the number of studies carrier out.

Conclusions: 1. Life expectancy is longer in women 2. Causes of death in our series are similar to those reviewed series 3. The need of a systematic review of discharge summaries and continuous auditing can help to identify failing points and to develop means of correction 4. Post mortem studies can be a useful tool to help with clinical development and to improve the quality of patient care in hospitals.

Table 1 (V-190). % age distribution

< 65 yr-old	6 patients (3.9%)
66-75 yr-old	18 patients (11.9%)
76-85 yr-old	65 patients (43.04%)
86-100 yr-old	60 patients (39.7%)
> 101 yr-old	2 patients (1.32%)

V-191
BURNOUT SYNDROME PREVALENCE IN INTERNAL MEDICINE RESIDENTS OF A REGIONAL HOSPITAL

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Objectives: Burnout syndrome is an inappropriate response to chronic job stress markedly affecting those groups whose scope of work involves the public from steadily. Defined by Maslach and Jackson in 1981. It is characterized by a high level of emotional exhaustion, depersonalization and personal accomplishment. The aim of this study is to assess the degree of burnout among internal medicine residents in a district hospital.

Material and method: This is a cross sectional study. This will include all residents of Internal Medicine county hospital Infanta Elena de Huelva, with two residents per year, therefore a total sample of 10 residents. To all of them will be given the Maslach Burnout Inventory (MBI), consisting of 22 items, each of which is titrated with a Likert scale (the degree of agreement or disagreement with a statement of 0-6 points. Nine items respond to emotional exhaustion, depersonalization and five to eight to personal accomplishment (Annex I).

Results: Were included in the study a total of nine residents, one did not deliver the survey. Burnout is established there when you get a high score on the scales of emotional exhaustion and/or depersonalization, excluding the scale of personal fulfillment as an area greatly influenced by events outside the workplace. Met Burnout defining 7 (7 of 9) residents, ie 77.77% of the total. The staff depletion was observed in 5 residents, 55.55% of the total. Depersonalization was observed in 4 residents, 44.44% of the total. Personal fulfillment is not reflected because it is considered as a criterion Burnout.

Discussion: According to the definition, we observed Burnout syndrome in 77.77% of respondents to the MBI. Existence of burnout among residents was associated only to the total number of guards (5 or more). Residents have been the subject of several studies as a group are considered vulnerable to this syndrome. The causes that can lead to it are many highlighting the difficulties of reconciling work and personal life, lack of supervision in practice and increased external factors that put pressure on the professionals. The consequences are varied. The results of our study are similar to studies in university hospitals where more than two thirds of residents have Burnout criteria evaluated by MBI, which is only associated to the fact guards make more than 4 month. Therapeutic measures include identification of individual risk factors and specific treatment in the affected cases and corrective action on the external factors considered at risk.

Conclusions: Overall residents are satisfied with their career training and Burnout has fought with measures affecting the educational system and the organizational system of care.

V-192
NUTRITIONAL STATE OF PATIENTS WITH HIP FRACTURE IN SON ESPASES UNIVERSITY HOSPITAL

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Objectives: 1. To evaluate biochemical nutritional parameters in patients admitted for hip fractures in our center between January and November of 2011 2. To see whether there exists any relationship between these nutritional parameters and the appearance of infections or pressure scores (PS).

Material and method: Retrospective study using clinical history review of patients admitted for hip fractures between January and November of 2011. Nutritional risk evaluation assessed using CONUT tool, pre-albumin and zinc. Descriptive analysis using the mean and median according to the distribution, and percentages for qualitative variables.

Results: We collected a total of 221 patients with 67.8% women. The median of age was 78 years old for males and 83 years old for females. 81% came from their homes, 11.3% came from a residence or social services center. The Barthel index was 100 points in 46.2% and < 20 in 4.3%. 47% of patients had a Charlson index of 3 or more. 95% of the patients were polypharmacy patients. Biochemical nutritional evaluation was carried out in 75.1% (n = 166) of the patients. The nutritional parameters are shown in Table 1, the relationship of these parameters and infection/PS is described in Table 2.

Conclusions: Patients of which had a biochemical nutritional evaluation 63% had low risk of malnutrition, 35.5% hadmoderate risk of malnutrition and 3% had high risk of malnutrition. No difference between the nutritional parameter study and the appearance of infection or DU in patients with hip fractures.

V-193
APPLICATION OF "STROKE CODE" AND STROKE UNIT OPERATION ONE YEAR OF EXPERIENCE IN SANTA BARBARA HOSPITAL

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Objectives: Spreading the activity that has developed the Stroke Unit of the Neurology Department belonging to the Internal Medicine Service in the first year of operation, taking into account that patients are treated and classified initially by Internist physicians in the Emergency Room.

Material and method: A retrospective observational study in which medical charts of all patients who required medical assistance for ischemic stroke in the period between late 2010 and late 2011 that included criteria for activating the stroke code protocol. We collected all the data about: the onset of symptoms; stroke code

Table 1 (V-192). Biochemical nutritional parameters

	Male	Female
Albumina (g/dl)	34.6	33.7
Total cholesterol (mg/dl)	144.1	165.0
Lymphocytes	1280	1450
CONUT	4	4
Prealbumina (g/dl)	15.1	15.2
Zn (mg/dl)	58.5	60.2

Table 2 (V-192). Relationship of biochemical nutritional parameters and infection/PS

	Infection	No infection	PS	No PS
Albumina (g/dl)	34.5	33.7	34.5	33.8
Total cholesterol (mg/dl)	157.5	155.8	157.5	155.8
Lymphocytes	1450	1350	1450	1350
CONUT	3	4	3	4
Prealbumina (g/dl)	15.6	15.1	15.6	15.1
Zn (mg/dl)	63.23	58.2	63.23	58.2

Table 1 (V-193)

Patient number	Sex	Age	Cardioembolism or Aterothrombotic	Window time minutes	NIHSS admission	NIHSS after 24 hours	Ischaemic area
1	M	51	A	220	14	6	Deep left MCA
2	F	69	A	150	17	16	Right MCA
3	M	53	A	135	13	11	Deep right MCA
4	F	55	A	210	14	2	Left MCA
5	M	69	C	150	18	16	Right MCA
6	M	62	C	90	14	5	Deep left MCA
7	M	79	A	180	16	8	Left MCA
8	M	63	A	220	14	10	Right MCA
9	F	86	A	140	15	8	Left MCA

activation and arrival time of patients; signs objectified by the Internal physician; score on the NIHSS scale on arrival; final diagnosis; and inclusion or exclusion criteria for fibrinolysis; time and doses of fibrinolytic agents.

Results: In total 10 patients met criteria for fibrinolysis which represent 4% of the Stroke Code activation, a total of 120 activations of it, and knowing that patients who came with suspect clinic of ischemic stroke were 228.

Discussion: The implementation of the Stroke Code has been shown to increase the number of patients treated with thrombolysis and improve the functional prognosis of patients with acute ischemic stroke, in our experience we need to evaluate the prognosis and final clinic situation of our patients and to compare it with the results before implementation.

Conclusions: Despite our limited experience the success of the fribrinolysis is comparable to reference units with more skilled physician in that procedure. Our population has the same incidence of ischemic events who receive fibrinolytic therapy.

V-194
HOSPITAL DETOXIFICATION UNIT IN A INTERNAL MEDICINE SERVICE. TWENTY MONTHS OF EXPERIENCE

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Objectives: There is little information available regarding the drug detoxification in a general hospital. The aim of this study was describe the characteristics of the patients admitted to the Hospital Detoxification Unit (HDU) along twenty months.

Material and method: Prospective study of patients admitted between September 2010 and April 2012. Medical records were reviewed. SPSS program was used to perform the statistical procedure.

Results: One hundred and sixty one patients were proposed for admission to the HDU by their mental health services, 35 patients rejected their admission to hospital. Personal o family problems and the arduousness for their location were the main reasons that made it impossible. Those who were admitted, 76% were males with a mean age of 43.76 years (27-68) without significant differences between sexes. 92.9% were from Spain, 3.9% (3 patients) from Eastern Europe and 3.1% (4 patients) from South America. Alcohol was the principal drug to detoxify (71 patients), and 30 patients had to be detoxified from two or more drugs. The average length of hospital stay was 8.44 days to alcohol, 9 days to decrease methadone dose, and 11.25 for those admitted for methadone withdrawal. Fifteen patients (12%) applied for voluntary discharge. Sixty four patients (50.8%) had used intravenous drugs sometime, 48 (38.1%) never used illicit drugs and 14 (11.1%) had used drugs through other routes, only two had phlebitis when admitted. Six patients had to be readmitted, in one case to treat another different drug. Hepatitis B virus infection was diagnosed in 12 patients (9.6%), 22 (17.6%) were immune for VHB, and 56 (44.8%) had C hepatitis infection. Twenty four out of 85 patients had been in prison, 2 of whom were women. Thirty eight patients had a steady job (37% women and 29% males), while 29% males and 24% females were pensioners. Sixty per cent of females and 30% of males lived with partner.

Discussion: The mean age is similar in both sexes, and the main drug to detoxify was alcohol. Intravenously use is steadily decreasing, and also its complications. So the demand nowadays is for decrease or withdrawal of oral opioids. Males show a higher criminal activity, and a lower economic and social stability than females. When comparing the actual with previous figures we observed that the incidence of hepatitis virus B and virus C infection, and stay in prison are lower than twenty years ago, but also there is an increase foreign patients.

Conclusions: The characteristics of the patients admitted in HDU have changed in the last ten years. Nowadays, the number of patients who have a stable situation with family support has increased and the use of intravenous drug has decreased. This is responsible, to our best knowledge, of their better social integration social and self-care. All this facts can help to provide better assessment, monitoring and treatment of these patients.

V-195
INTRACARDIAC MASSES - PROBLEMS OF DIFFERENTIAL DIAGNOSIS

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Objectives: To present a series of clinical cases with intraatrial masses that raised issues of differential diagnosis.

Material and method: We present 4 cases with intraatrial masses, extensively investigated by transthoracic and transesophageal echocardiography, venous and arterial Doppler ultrasound, thoracic CT scan, MRI, angiography. All patients were finally referred to cardiac surgery.

Results: Case 1. 53 year-old male, hypertensive, without history of peripheral artery disease, presented with sudden onset of pain in the legs. Right calf was increased in volume, endured, with sharp pain when walking and functional impotence. Lab tests: hepatic cytolysis, rhabdomyolysis, acute renal insufficiency. Venous Doppler ultrasound of pelvic limbs and muscular ultrasound were normal. Arterial Doppler ultrasound: 80% stenosis of right common femoral artery. MRI of right calf: rhabdomyolysis, probably due to ischemia. Arteriography: bilateral occlusion of external iliac arteries, occlusion of right tibio-peroneal trunk. Transthoracic echocardiography revealed a left intraatrial mass, 22/14 mm, highly mobile, attached to the interatrial septum, atypical for myxoma, due to excessive mobility and extensions. The patient was referred to surgery, with final diagnosis of atrial myxoma and peripheral embolism. Case 2. A 69-year-old female, with severe mitral stenosis and atrial fibrillation, anticoagulated with acenocumarol, with INR in therapeutic range, presented with 2 weeks history of dyspnea, fatigue and dysfagia. Thoracic CT scan raised the suspicion of mediastinal tumor with left atrium invasion. Transthoracic echocardiography: mitral disease (severe stenosis and mild regurgitation), severe pulmonary hypertension, left atrium very dilated. Transesophageal echocardiography revealed left intraatrial massive thrombosis, which was not visualized at transthoracic echo and was mistaken for mediastinal tumor at CT scan. The patient was referred to cardiac surgery, where left atrium thrombectomy and mitral valve replacement were performed. Case 3. 66 year-old female, hospitalized in the surgery clinic for abdominal pain, with diagnosis of poliserositis and suspicion of ovarian tumor. Internal medicine consult: congestive heart failure, ascites, right pleuresy. Transthoracic echocardiography revealed a left intraatrial mass, hyperechoic, 62/25 mm, mobile, attached by a stalk to interatrial septum, severe pulmonary hypertension. The patient was referred to cardiac surgery, with successful tumor excision. Postoperatively the diagnosis was myxoma. Case 4. 55 year-old female, without prior pathological history, asymptomatic. At a routine check up, including transthoracic echocardiography, a right intraatrial tumor, 44/38 mm, attached to superior and lateral wall, was identified. Thoracic CT scan and MRI confirmed the tumor. After surgery, the

diagnosis was myxoma. Particularities of the case: incidental finding of myxoma in an asymptomatic patient, atypical location on lateral wall of right atrium.

Discussion: Transthoracic and transesophageal echocardiography are the methods of choice for the diagnosis of intraatrial masses. The differentiation between myxomas and thrombi is sometimes difficult, but is critical for making the right therapeutic decision.

Conclusions: Atrial myxomas are benign neoplasms that arise from the interatrial septum and extend into the left or right atrium. Usually they are associated with atypical symptoms and only a small percentage remain completely asymptomatic. Clinical manifestations are in close relation to the location site and produced by mechanical interference with cardiac function or by intracardiac obstruction. Embolization of systemic or pulmonary circulation is a frequent phenomenon.

V-196
CLINICAL SIGNIFICANCE OF THE EXTREME ELEVATION OF THE ERYTHROCYTE SEDIMENTATION RATE: A RETROSPECTIVE ANALYSIS

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Objectives: The ESR, defined as the rate (mm/hour) at which erythrocytes settle when placed in a vertical tube suspended in plasma, reflects a variety of factors, notably the plasma concentration of fibrinogen. The ESR is one of the tests used to evaluate the acute phase response. The ESR is a simple and inexpensive test of chronic inflammatory activity, whose usefulness is becoming limited as a result of low sensitivity and specificity and emergence of new methods of evaluating the inflammatory condition. The ESR is frequently ordered in clinical medicine. In our study, we aimed to investigate the diseases which elevate erythrocyte sedimentation rate upper than 100 mm/h.

Material and method: In this study we retrospectively examined the medical records of patients who were hospitalized in our Internal Medicine Department between January-December 2011. From the medical records of the total 389 patients admitted in this period, 89 patients having an erythrocyte sedimentation rate (ESR) 100 mm/h and over were selected and recruited in the study.

Results: 45 cases were male (M) (50.6%), and 44 were female (F) (49.4%). Mean age was 65.47 ± 14.8, mean ESR was 114.61 ± 13.9 mm/h (M: 114.02 ± 14.23 mm/h, F: 115.2 ± 13.7 mm/h). There were 47 patients having an ESR between 100-110 mm/h, 18 patients between 111-120 mm/h, 13 patients between 121-130 mm/h, 6 patients between 131-140 mm/h, 2 patients between 141-150 mm/h and a total of 2 patients between 151-160 mm/h. The distribution of the disease groups was as follows: haematologic and oncological diseases (39.3%), infectious diseases (27%), rheumatic diseases (13.5%), nephrological diseases (6.7%), gastroenterologic diseases (6.7%), endocrinological disorders (4.5%), cardiac diseases (1.1%). Lung cancer was the most common (17.1%) malign disorder among the study population. In one patient, no cause could be found as the etiology. The highest value of erythrocyte sedimentation rate detected was 159 mm/h in two patients. One of the patients had sepsis, other one was diagnosed with acute myeloid leukemia. A value of ESR as 140 mm/h was detected in a patient with urinary tract infection. It is the cause of high ESR values in 11.1% of cases and it was worth to pay attention that urinary tract infection elevated the ESR higher than 100 mm/h as a single cause.

Conclusions: As a result, hematological and oncological disorders, especially lung cancers; and among the rarer causes, urinary tract infections should be considered in the differential diagnosis of ESR values higher than 100 mm/h.

V-197
SALIVA - AS BIOLOGICAL SPECIMEN AND DIAGNOSIS TOOL

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Objectives: Saliva is a dynamic and complex fluid, reflecting the life style and being fingerprinted by different diseases. Our study is focused on 3 approaches of saliva: in vivo, in vitro and in silico, regarding specific chemical and biological features, related to two pathological conditions: diabetes mellitus associated with parodontal disease and dental cavities pathology.

Material and method: Being an on-going study, so far were assessed 50 saliva samples. Respecting the well-defined admitting criteria (gender, age, pathology) we divided the subjects into 3 groups, as follows: control (10), multiple dental cavities (20) and diabetic parodontal pathology (20). According to "individual file" were specified: general data, heredo-collateral/personal history, life style, risk behaviours, previous medical treatment, and dental evaluation. Each biological sample was obtained in similar conditions (non-stimulated saliva) in an intimate environment, with record of required time for 5 ml of saliva collection. The saliva variables followed by us were complex: macroscopic evaluation (color, consistency, pus, blood), presence/concentration of certain parameters: erytrocytes, leucocytes, glucose, proteins, bilirubine, pH, density, ketone bodies, nitrites - strip maneuvre), saliva smears (MB and NBT), spectrophotometric analysis (Trace Lab 150 and Thermoscientific AA Spectrometer ICE 3300 for metal ions: Cd, Ni, Lead, salivary amylase activity), immunologic assay: sIgA titers, and microbiological aspects (blood-agar, Levin, Drigalski and Sabouraud medium). For in silico approach was designed a personalized soft, consisting in all displayed parameters and individual data.

Results: Regarding saliva variables, we noticed a longer period of time necessary to collect the biological sample in both pathological conditions (up to 40 minutes in parodontal disease) with afferent higher consistency; in parodontal patients: 10% presented traced of pus, 30% blood traces, 50% possessed an acidic pH, 10% positive for nitrates, and 40% developed frequent Candida albicans colonies, an increased concentrations of leucocytes, and inflammatory reaction (NBT smear). Salivary amylase activity was increased in both pathologic conditions, with statistical significance ($p < 0.001$) in parodontal group, compared to control samples. Considering metallic ions concentrations, in parodontal group we noticed 2 isolated cases of increase in Cadmium level, interpretated as a professional exposure (according to personal history).

Discussion: The 3 assessed groups of saliva samples, allowed us to evaluate the presence and types of cellular components, the physical-chemical properties and the immunological features of the individuals, in correlation with health/different pathologic conditions. There was a significant statistic correlation between studied pathological conditions and oral impaired immune status. The local inflammatory reaction was predominant in parodontopathy related with diabetes mellitus, associated with Candida albicans. The salivary amylase activity followed the same trend as inflammatory reaction. Regarding the metallic ions, were noticed no correlation with studied pathology. Both dental cavities and parodontopathy induced by diabetes mellitus, are consequences of a multifactorial process, which depends on the interaction between host (genetics, oral microbiocenosis) and risk behaviours, such as: diet, smoking, incomplete dental hygiene.

Conclusions: Saliva collection is a non-invasive, stress-free procedure, easy to be used as diagnosis tool. Based on these, preventive/corrective/curative therapeutic schemes could be developed, with essential support of a personalized soft. The potential use of metallic ions in saliva, might be used to identify risk areas of pollution/professional exposure. The enlargement of

parameters panel, with ATP-ase, lysosyme and other inorganic substances is an aim for our future studies.

V-198
ORTHOPEDIC CONSULTATION TO AN INTERNAL MEDICINE DEPARTMENT

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Objectives: Assess frequency and motives of consultations (Cs) from Orthopedical Surgery Department (OS) to our Internal Medicine Department (IM), analyze their main features, identify patients on risk of medical complications and provide plans and guides for better outcomes.

Material and method: Descriptive, retrospective study by data gathering from archives of the Cabueñes Hospital, collecting consultations from OS to IM on 2011. Data analysis and previous bibliography review.

Results: Our IM Department receives 400 consultations each year, a third part of them from OS. This is 4.6% of all admissions to OS. Most of them were urgent, and urgent admitted patients were more prone to need a consultation. Patients were 56% women, age 81.6 (higher on women, reaching 83.75 in front of 78.98 years old on men). They were comorbid patients, with an average age-adjusted Charslon index of 5.83. Cardiorrespiratory ailments (chronic heart failure and ischemia, COPD), ischemic brain disease, DM and dementia were the most prevalent disease Polimedication was the rule. Hip fracture was the main cause of admission (56.7%), and dyspnoea the main motive of consultation. Analytic abnormalities and low consciousness were also important. We also found that delay to ask for consultations was 1.32 days after cause appeared, and another 0.17 days to answer for the request: 86.5% were answered the same day. Repetition of consultations happened in 21 out of 128 cases, 13 of them for the same motive. IM consultant performed analysis (71%) and other tests, and in 88% treatment was switched. Hospitalary stay lengthens 9.5 days and one third of diagnosis were of decompensations of chronic ailments. Renal failure/dehydration, respiratory troubles and heart insufficiency were the most common diagnosis. Further evolution was good in 71 out of 104 patients, and we had 24 deaths. Discharge note had references to our work in 65 cases. We made a subanalysis of hip fracture patients, finding they were older, most of them women and stayed longer at hospital. Mortality was very high: 27.12%, without any single death on hip fracture patients without consultation. We also studied the cases of death: many were hip fractures (22.22%), being urgent admissions 92.59% of deads. Patients who died were older but not statistical significance was found. There was a good correlation to ASA, Charlson and age-adjusted Charlson scores, with significant statistical differences. Among the causes of dead, renal failure, respiratory infection and failure and heart ischemia and insufficiency were the most important.

Discussion: Consultations from OS are in the average previously found (4 to 5% of admissions), and they relate to comorbid, old and complex patients with medical issues that worsen prognosis and are often decompensated by acute insult (trauma and surgery). Consultations were answered on time and changes in treatment were the rule. Internists were deep involved in patient care in most cases, with a follow-up rate of 71.70%, when other studies showed this rate was between 30 and 70%. New working methods for high risk patients (i.e. hiper fracture) are warranted.

Conclusions: Consultations are made nowadays on request in our setting, and there are signs showing this system is not as useful as it should. Worse outcomes, higher costs and less satisfaction is perhaps a consequence of a system needing to be improved. Better communication between staff, clinical guides about the most prevalent pathologies (starting with hip fracture) and specifically training for OS and MI residents are warranted. An internist on full-time basis at the OS department is an already tried idea in many hospitals, and also a plan to make a medical visit to every high-risk patient admitted. The good correlation with comorbidity indexes could be helpful for patient stratification, and it came already to an amelioration program within IM and OS.

V-199
THE PREVALENCE OF OBESITY IN PATIENTS ADMITTED TO INTERNAL MEDICINE CLINIC: A RETROSPECTIVE STUDY

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Objectives: Obesity, a chronic disease that has an increasing prevalence in adults, adolescents, and children, is now considered to be a global epidemic. In most populations, the prevalence of overweight and obesity has increased over the past 20 years. In the United States, the lifetime risk of becoming overweight or obese is approximately 50 and 25 percent, respectively. Healthcare expenditures are significantly higher for overweight and obese individuals. In this study, we investigated the clinical characteristics and the distribution of obesity in patients hospitalized for various reasons in our internal medicine department in the last 1 year period.

Material and method: We retrospectively analyzed the files of all patients hospitalized in our internal medicine clinic between June 2011 and December 2011 in this study. 92 (35.4%) patients with a BMI of 30 and above from a total of 267 patients were selected and recruited in the study.

Results: 48 cases were male (M) (52.2%), 44 were female (F) (47.8%). The mean age, mean weight, mean height and the average BMI of the patients were 55.6 years, 93.7 kg, 1.62 m, 34.9 kg/m^2 respectively. According to BMI, patients were classified as 60 cases between 25-29 (22.4%), 53 cases between 30-34 (19.8%), 29 cases between 35-39 (10.9%), and 10 cases over 40 (3.7%). The highest value of BMI was 54 kg/m^2. When the distribution of disease groups was examined, diabetes mellitus and/or hypertension were present in 64 patients (69.5%), malignancy in 10 patients (10.8%), allergic and immunological diseases in 3 patients (3.2%), infectious diseases in 3 patients (3.2%), cardiovascular disease in 2 patients (2.1%), hematologic diseases in 2 patients (2.1%) and chest diseases in 2 patients (2.1%); miscellaneous various diseases were detected in 7 patients.

Conclusions: We here found that morbid obese population had greater hospitalisation ratios than the frequency observed in the general population. Morbid obesity, often with accompanying diabetes mellitus and hypertension, is important because it creates a predisposition to hospitalizations.

V-200
NURSES AND DOCTORS HAVE A DIFFERENT VIEW OF VALUE RISK OF ADVERSE EVENTS WITH INTRAVENOUS CATHETERS

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Objectives: The concern about the safety of care is increasing, and an intervention planning now requires more than ever consider

the risks involved, both to inform patients as to the decision-making action to perform. During the process of elaboration of a Clinical Guideline about IV therapy by the GRADE method, is required explanation of the significance that the authors give to potential adverse events due to the intervention. This is particularly important to inform patients about potential adverse events and get their collaboration. However there are few studies on how these professionals perceive the risk of their interventions.

Material and method: The 17 authors of the guide, voted independently on a scale from 1 to 9 the clinical relevance that they thought 21 potential adverse events resulting from the channeling of a central venous line could have. The analysis of results is collected by the profession of the authors, nurses versus doctors, with the median of the votes of each professional group and overall for all authors.

Results: Table 1 shows that both groups voted 11 adverse events very differently, 7 of which were consider more relevant for doctors (exitus, secondary complications to surgery, greater laceration, catheter sepsis, lost track, broken cannula and local irritation) and 4 of them were considered more relevant for nurses (phlebitis, local pain, extravasation and hematoma).

Discussion: This data support previous studies that reflect that the attitudes of professionals about objective risks on health interventions is subjected to various influences like the years of occupation or the education level. On the other hand it seems to have control in the practice makes perceive a minor risk, which may explain the attitude of nursing on venous channeling.

Conclusions: The perceived risk of interventions is poorly correlated to the objective relevance of them, and it is possible that the patient information and precautions to increase the safety of interventions could be affected by attitudes to risk.

V-201
DIFFICULTIES USING GRADE WITH GUIDELINES FOR INTERMEDIARY PROCESS

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Objectives: Elaborating a Clinical Practical Guideline (CPG) of intravenous therapy there was disagreement in selection of adverse outcomes, which is a necessary point in intermediary process using GRADE system. Relation between intervention and outcomes are considered direct, while this relationship is indirect with intermediary process. The intermediary process behaves like a silent witness factor. Therefore authors could have difficulties to understand outcomes as a consequence of the intermediary process.

Material and method: Using GRADE system, an authors panel selected the clinical importance between a list of 22 proposed results related to intravenous lines. In a two-round individually voting 14 panelists scored the adverse outcomes with a 1-9 point scale. We develop a discussion meeting on the clinical relevance of the proposed outcomes in between both rounds. We calculated the median and frequency of deviations from the median in plus/minus three points of the scale, to check dispersion among experts.

Results: We found great differences between the two rounds (see table). In the second round, death passes from the fifth to the first in importance with nearly unanimous decision.

Discussion: CPG should be based upon the best available research evidence and practice experience, but if every author don't understand as the same the intermediary process, which is vote the adverse outcomes, clinically-relevant factors like the magnitude of effect of interventions we try to improve wouldn't be reliable.

Conclusions: Outcomes perceived to be indirectly related to the intervention are considered of little importance, in spite of its great clinical relevancy (death). It seems that raters could be first considering the probability or frequency for the outcomes to take place, than the importance of the result same for the patients.

V-202
GASTROINTESTINAL COMPLICATIONS OF DIABETES

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Objectives: Gastrointestinal (GI) disorders caused by diabetes include gastroparesis, intestinal enteropathy (which can cause diarrhea, constipation, and fecal incontinence), and nonalcoholic

Table 1 (V-200)

Adverse outcome	Median doctors	Median nurses	Global median
Exitus	9	4	7
Secondary complications to surgery	8	4	5
Phlebitis	6	8	7
Obstruction	6	3	3
Central thrombosis	8	5	5
Catheter sepsis	7	5	6
Pain	6	8	7

Table 1 (V-201)

Complication type	1st round scores median	1st round scores desvme ± 3	1st round scores% desv	2nd round scores median	2nd round scores desvme ± 3	2nd round scores% desv
Exitus	7	3	33.33%	9	1	7.69%
Catheter sepsis	6	0	0.00%	9	0	0.00%
Surgery complication	5	3	33.33%	8	1	7.69%
Puncture repetition	8	2	22.22%	4	1	7.69%
Quality of life related to health	4	3	3.33%	7	3	23.08%

fatty liver disease. The purpose of this study was to evaluate gastrointestinal complications in patients with diabetes.

Material and method: We retrospectively analyzed the data from patients hospitalized in National Institute of Diabetes, Nutrition and Metabolic Diseases Prof. N. Paulescu in 2011 (6,668 patients).

Results: Approximately 2.06% (138 patients) of patients with diabetes reported symptoms consistent with gastroparesis. Gastroparesis was most common in women. Neuropathic diarrhea prevalence was 1.1% (80 patients). 4.9% of patients with diabetes reported symptoms of constipation or increased use of laxatives. Prevalence of hepatitis C in patients hospitalized with diabetes was 2.9% (195 patients). 1.5% of patients had hepatitis B (101 patients). Cirrhosis was present in 2.65% of patients, the most common causes were chronic hepatitis C, chronic hepatitis B virus, alcoholic liver disease.

Conclusions: Gastrointestinal complications in diabetic patients are undervalued and require active screening measures at each visit.

V-203
HYPOMAGNESEMIA AND PROTOM-PUMP INHIBITORS: PRESENTATION OF THREE PATIENTS AND REVIEW OF THE LITERATURE

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Objectives: Analyze clinical features and evolution of patients diagnosed with hypomagnesemia associated with proton pump inhibitors (PPI) in our hospital and review of the literature.

Material and method: We conduced a descriptive and retrospective study of patients diagnosed of hypomagnesemia associated with PPI, in our hospital (Cabueñes hospital has a population of 300.000 inhabitants), from June 2005 to June 2011. We studied demographics, clinical, biochemical data and clinical course. Patients with parenteral/enteral nutrition, those admitted to intensive care unit and with inflammatory bowel disease and/or intestinal surgery were excluded. Statistical Package for the Social Sciences (SPSS) was used for the analysis.

Results: Three cases were diagnosed with hypomagnesemia and PPI. To date there have been reported 28 cases in the literature –Pubmed. 17 (54.83%) were females and 14 (45.16%) males. The mean age was 68 ± 10.64 (39-83) Omeprazole 26 (83.87%) was the most frequent PPI, for 6.88 ± 3.42 (1-13) years; followed by esomeprazole 3 (9.67%), pantoprazole 1 (3.22%) and lansoprazole 1 (3.22%). The indication of treatment was gastroesophageal reflux 9 (29.03%), non-steroidal antiinflammatory (NSAIDs) 6 (19.35%), ulcer 4 (12.90%), Barretts esophagous 1 (3.22%), duodenitis 2 (6.45%), hiatal hernia 1 (3.22%). Note that, at least, 11 (35.48%) was holding diuretic therapy, no cases of digoxin therapy. The most frequent clinical features are neuromuscular symptoms, and ECG abnormalities. Concerning clinical data is remarkable that: 8 (25.80%) complained paresthesias, 6 (19.35%) cramps, 5 (16.12%) muscle weakness, 4 (12.90%) seizures, 4 (12.90%) tetany, 3 (9.67%) syncope, 3 (9.67%) dizziness, 2 (6.45%) tremor, 4 (12.90%) acute confusional syndrome, 2 (6.45%) spasm carpopedal and 1 (3.22%) hallutinations. Nine (29.03%) patients had ECG changes: 2 (6.45%) had a long QT, 2 (6.45%) ST-segment decrease. And the remainder had: atrial fibrillation, flutter, extrasystoles and ventricular tachycardia. Treatment carried out in most cases was discontinuation of PPI and replaced by ranitidine, and supplementation of magnesium orally or intravenously.

Discussion: PPI are high efficiency well tolerated drugs, widely available and used, but with occasionally serious side effects. The Food&Drug Administration (FDA) has published a warning -February, 2011- that alerts for patients in long term treatments of the risk of severe hypomagnesemia associated with potentially fatal arrhytmias. The first description in literature was in 2006. The mechanism and frequency of PPI-induced hypomagnesemia still remains unclear. It has been hypothesized that PPI impairs the intestinal active transcellular magnesium transport, due to malfunctioning of channel membrane proteins (TRPM6 & 7). Hypomagnesemia is a drug class characteristic and has been reported with all available PPIs. The clinical and demographic features are similar to those previously published. Neuromuscular and cardiac complaints, weakness, tetany, seizures and rhythm disorders are adverse effects frequently reported. The severity is related with the emergence of serious arrhythmias (atrial fibrillation, ventricular tachycardia) and/or abnormal electrocardiographic findings (QT elongation). Patients treated with diuretics and digoxin are prone to increased risks of hypomagnesemia. Magnesium supplement is the treatment of choice, associated with disruption of PPIs.

Conclusions: Monitoring magnesium levels in PPI treated patients is desirable, especially when neuromuscular and cardiac rhythm disorders are present.

V-204
THE PRODUCT OF TRIGLYCERIDES AND GLUCOSE AND METABOLIC SYNDROME

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Objectives: The objective of this study was to assess the relationship between fasting proinsulin (PI), the product of triglycerides and glucose (TyG index) and metabolic syndrome in normal, overweight and obese adults.

Material and method: A random population-based sample (n = 656) of Romanians (26–80 years) was studied; persons with diabetes (n = 407) were excluded from this analysis. All participants underwent anthropometric measurements and blood tests (fasting plasma glucose, HbA1c, lipids, aminotransferases, insulin, proinsulin and C-peptide). Homeostasis model assessment of insulin resistance (HOMA-IR), HOMA-B, and Quicki index were also calculated. The diagnosis for metabolic syndrome (MetS) was made according to International Diabetes Federation. TyG index was calclulated using a previously published formula [Ln(fasting triglycerides) (mg/dl) × fasting glucose (mg/dl)/2].

Results: The study group included 59% women (n = 147), with median age 60 years. 31.7% (n = 79) had obesity (BMI > 30 kg/m^2), 37.8% (n = 94) presented overweight (BMI = 25-29.9 kg/m^2), 28.5% (n = 71) had MetS. Patients with MetS had significantly higher values for TyG index, insulin, C peptide, proinsulin (all $p < 0.0001$). The ratio of the fasting levels of proinsulin to insulin did not differ significantly between the groups ($p = 0.9$). When ROC curve analysis was used to see the suitability of trygliceride*FPG to identify MetS area under curve was found to be significant (AUC 0.7480, $p = 0.0001$) and greater than that for HOMA-IR (AUC = 0.748, $p = 0.001$).In univariate analysis, TyG index correlated significantly with age ($r = 0.35$, $p = 0.001$), C peptide ($r = 0.53$, $p = 0.001$), HOMA-IR ($r = 0.606$, $p = 0.0001$), proinsulin ($r = 0.489$, $p = 0.0001$) and negatively with HOMA-B ($r = -0.606$, $p = 0.0001$).

Conclusions: Plasma TyG index increased in patients with MetS compared to healthy subjects. These results suggest that IR, insulin

secretion, proinsulin are affected early in patients with overweight and obesity and diabetes prevention measures must be applied at this stage. Subsequently, we also found that TyG index above the cut-off point may help the clinician to predict MetS.

V-205
RELATIONSHIP BETWEEN SERUM RESISTIN CONCENTRATIONS AND INSULIN RESISTANCE IN OBESE PATIENTS WITH CHRONIC HEPATITIS C

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Objectives: The aim of the current study is to determine the circulating resistin levels in patients with chronic hepatitis C (CHC) and to correlate them with insulin resistance and hepatic histological features.

Material and method: We selected 176 patients who were divided in 2 groups: group A - 105 patients with chronic hepatitis C without obesity (CHC-O) and group B - 71 patients with chronic hepatitis C with obesity (CHC+O). IR was determined using Homeostasis model assessment (HOMA-IR).

Results: Serum resistin was higher in women than in men in the whole group but without statistical significance (21.4 ± 14.6 ng/ml versus 19.5 ± 13.9 ng/ml, p = 0.28). Resistin levels were higher in CHC patients with obesity (p = 0.0001). Serum resistin levels increased parallel with increasing body mass index. Resistin correlated positively, but not very strong with BMI (r = 0.338, p = 0.008) and HOMA-IR (r = 0.34, p = 0.007). In patients with CHC, resistin correlated with some components of metabolic syndrome (MetS) (HTA, r = 0.254, p = 0.009; CA, r = 0.234, p = 0.016; BMI, r = 0.288, p = 0.003), also with the presence of MetS (r = 0.314, p = 0.001). In multivariate logistic regression controlled for age, sex and BMI, serum resistin levels were associated with hepatic steatosis and hepatic fibrosis.

Conclusions: This study demonstrated the relationship between resistin and IR. There is an explanation for this, as resistin is related to IR, resistin may contribute to hepatic steatosis by promoting IR and insulin signal changes in hepatocytes.

V-206
LOOKING AT PRESCRIPTIONS ON AN INTERNAL MEDICINE WARD (JANUARY-MARCH 2012), REGARDING THE VERY OLD, USING THE START (SCREENING TOOL TO ALERT DOCTORS TO RIGHT TREATMENT) CRITERIA

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Objectives: To show if older patients are indeed inappropriately medicated by default (inpatients).

Material and method: We retrospectively studied prescription data from 18 patients aged > 85 years old on acute Hospital admission, from January to March 2012, using the START Criteria (Gallagher et al. Int J Clin Pharm Ther 2008).

Results: The most frequent main diagnosis on admission was heart failure. The median length of Hospital stay was 9.4 days. The median number of medications on admission was 5.9. Eight of our patients should have started on drug (concerning the cardiovascular system), five of them two drugs (concerning both the cardiovascular and the respiratory system), the remaining five patients three drugs (also concerning the cardiovascular and the respiratory system).On Hospital discharge the median number of medications was 5.3. Eight patients actually did start at least one drug.

Discussion: We studied a small amount of patients for short period of time; this reflects the fact that the very old patients still correspond to a small percentage of our inpatients and that perhaps we could extend the study further in time. Nevertheless, the data presented demonstrates that our elderly patients are not as well prescribed as they should be, because, when we used the START criteria, it became clear that we had to add at least one drug to all of them, which was empirically done at the time in eight patients.

Conclusions: Inadequate prescription should be a major concern these days, especially for the elderly. There are no perfect systems to evaluate this, but the authors think the START Criteria are a very good and easy method to be used.

V-207
MESENTERIC PANNICULITIS: OUR EXPERIENCE ON AN ONGOING PROBLEM

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Objectives: Our goals were to assess clinical and radiological characteristics in patients with mesenteric panniculitis (MP) and the association with malignant disease.

Material and method: We retrospectively reviewed every MP followed at our Department from January-08 to April-12. Eleven patients were found to have been diagnosed with MP during this period. Baseline characteristics, clinical presentation and management are collected and tabulated.

Results: We report 8 females (72.7%) and 3 males (27.3%) with MP (n = 11). Mean age in our series was 68 years. All patients had clinical manifestations at the time of diagnosis. The most common manifestations were abdominal pain (n = 9), nauseas and/or vomiting (n = 4).None had a background of abdominal trauma, while two had previously undergone abdominal surgery more than ten years earlier. CT scan was the diagnostic imaging tool (n = 11), demonstrating MP. Aditional 8 PET/CT was positive in five cases. A biopsy demonstrated chronic inflammation in two cases and malignant disease in 5 cases (3 follicular lymphoma, 1 intestinal-T-Lymphoma and 1 gastric tumor); interestingly, all patients with malignant condition had a positive PET/CT study. MP was associated with malignant disease in five cases (45.5%) and all received treatments according with oncologic protocols. The patient with intestinal associated T lymphoma died 1 year after diagnostic of type 2 refractory coeliac disease. One symptomatic patient without malignant condition in biopsy received corticosteroids regimen with optimal response and evolution. Five patients received none treatment and additional case is pending to decision according the next results. All data are summarized in a table.

Discussion: Mesenteric panniculitis (MP) is a rare inflammatory condition that is characterized by chronic and non-specific inflammation changes within the mesentery. The disease is more common in men (ratio of 2-3:1) and incidence increases with age. Our series is according with a slight female predominance reported in a single publication. The pathogenic mechanism seems to be a non-specific response to a wide variety of stimuli and although the precise etiology remains unknown, some cases have been associated with a number of malignant diseases. The proportion of cases associated with an underlying malignancy has ranged from 1 to as

high as 70% in many reports. A variety of malignancies have been reported (lymphoma, breast cancer, gastrointestinal adenocarcinomas, gynaecologic carcinomas and many others involving lung, liver, renal, skin, prostate...), these associations have led to speculate that MP represents a nonspecific response to an underlying malignancy. We report malignant disease in 45.5% of cases in our short series. The differentiation between benign and malignant causes could not be made with confidence based on the CT findings. Our results suggest a potential role for integrated PET/CT in the assessment of MP and can be used to correctly exclude malignant disease.

Conclusions: 1. MP is a complex and poorly understood phenomenon and its clinical manifestations can be nonspecific. 2. CT plays an important role and may be the first imaging modality to suggest the diagnosis in patients undergoing abdominal CT. A negative PET has high diagnostic accuracy in excluding malignant disease associated, while increased uptake may suggest the coexisting of malignant deposits, particularly in lymphoma, and require diagnostic biopsy. 3. MP could be a paraneoplastic syndrome and we recommend follow-up for exclude the development of malignant disease. 4. Our study are limited by the relative small number of cases and the lack of a pathological proof for all lesions, not all detected lesions have histological diagnosis and their nature is sometimes based on clinical and imaging follow up. Validation of our findings in larger patient groups is warranted.

V-208
PREDICTORS FOR IN-HOSPITAL MORTALITY AND LENGTH OF STAY IN UPPER GI BLEEDING

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Objectives: To identify the predictors of in-hospital mortality and length of stay (LOS) in patients with UGIB.

Material and method: We conducted a retrospective study on 151 patients admitted to our unit with upper GI bleed between 1st January 2007 and 31st December 2011. Clinical, biological and endoscopic data were collected from their charts. We calculated the clinical and complete Rockall and Glasgow-Blatchford risk scores and performed an analysis of their predictive value for in-hospital mortality and length of stay.

Results: Of the 151 patients enrolled, 69% were male and 31% female, with a mean age of 59.48 ± 13.41 (23-88). 13.2% were smokers and 21.9% reported chronic alcohol intake. One in three patients had a history of chronic liver disease and one in eight had a previous episode of UGIB. Regarding drug-related GI bleeding risk, 17.9% of patients were on NSAID, 5.3% on antiplatelets, 6% on oral anticoagulant and 1.2% on combinations of these. Clinically, 58.2% of the patients presented with melena, 18.5% with hematemesis and 23.1% with both hematemesis and melena. 22% of cases were variceal hemorrhages and 78% non-variceal. 16 patients died during hospitalization and the mean LOS was 8 days (1-39). The prognostic accuracy of all three scores for in-hospital death was good, the complete Rockall score having the best performance (AUROC 0.849).

Conclusions: The Rockall and Blatchford scores were good predictors of mortality and LOS in our study. The good predictive performance of these scores highlight the need for their use in day-to-day practice to select patients with likelihood of poor clinical outcome.

V-209
MEGALOBLASTIC ANAEMIA IN AN INTERNAL MEDICINE WARD

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Objectives: To find out the contribution of folate and cobalamin deficiencies in causing megaloblastic anaemia in our patient population and to characterize it considering epidemiologic and clinical features.

Material and method: Retrospective analysis of megaloblastic anaemia cases admitted between 2006 and 2011 in an Internal Medicine Ward.

Results: Fifty three patients, with a mean age of 68.27 ± 16.9, with an equal distribution for both genders. The results showed cobalamin deficiency in 24 patients (45.83%) and folate deficiency in 26 patients (54.17%). In the majority of the cases the diagnosis of cobalamin deficiency was made during the admission but only in 12 of them (50%) the etiologic investigation was performed. Five patients were diagnosed with pernicious anemia, three with chronic gastritis and three had been previously gastrectomized. Forty four percent of the patients with cobalamin deficiency had severe anemia (Hb < 8 g/dl); and the mean value of hemoglobin was 8.91 mg/dl. The prevalence of folic acid deficiency was equal in both genders. In these patients the diagnoses was already known and mean cause was alcohol consumption.

Discussion: Folate and vitamin B12 deficiencies have been known to cause megaloblastic anaemia and have a high prevalence in elderly. They are associated not only with macrocytosis but also with neurologic deficits, requiring its diagnosis and treatment. Based on the western literature the folate deficiency is the main cause of megaloblastic anaemia. In our hospital folate deficiency was also responsible for the majority of cases (54.17%) of megaloblastic anaemia and these cases are mainly associated with alcohol abuse and malnutrition. However, Vitamin B12 deficiency has also a great contribution as a cause of these type of anaemias. Severe megaloblastic anaemia is not uncommon among patients who present with symptomatic anaemia in hospitals, which is confirmed in our patient population.

Conclusions: Vitamin B12 and folic acid deficiency both have a large contribution to megaloblastic anaemia in our study population. Inadequate dietary intake and poor absorption contribute to cobalamin deficiency. However further efforts are needed to achieve a correct etiologic diagnosis in these cases. History of alcohol consumption and inadequate dietary intake are associated with the higher prevalence of folic acid deficiency of this population.

V-210
METABOLIC CONTROL- RELATION TO SOCIO-ECONOMIC CHARACTERISTICS AND QUALITY OF LIFE IN DIABETES MELLITUS

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Objectives: Diabetes Mellitus (DM) is a chronic metabolic disease, a major health problem with wide implications for well-being and social life. The aim of this study was to examine the relationship between, metabolic control and quality of life (QOL) among individuals suffering from type two diabetes accompanied by a Hospital diabetic team.

Material and method: A cross-sectional, observational study was performed, based on data obtained from patients interview and analysis of the clinical files of all patients attending appointment at District Hospital in a 2 week period. All patients underwent a self-administered questionnaire the WHOQOL-bref. The studied variables were: gender, age, comorbidities and the presence of diabetic complications, metabolic control parameters (% of HbA1c), monthly income, educational level, and WHOQOL-bref score. Statistical analysis was performed using SPSS for Windows v17.0. We used T-student test for comparison between groups and simple correlation between numeric variables. A 0.05 level of significance was adopted.

Results: We evaluated 150 patients, 46% male. Mean age was 60.13 years (28-98), being women older (mean = 65.85 years; $p < 0.05$). Patients were diagnosed, in mean, 13.9 years ago; 8% were smokers, 13.3% declared alcoholic consume, 78% had high blood pressure. In general, patients had average hemoglobin A1C levels of 7.78% (40% had a good metabolic control with levels < 7%), with no differences in gender. Women had significantly lower education and income compared with men ($p < 0.05$). Average WHOOL-bref was 16. Patients scored lower in QL were older or after more than 16 years from diabetes diagnosis ($p < 0.05$). There were no differences regarding HbA1c levels. The presence of cerebrovascular disease and retinopathy were associated with lower scores in QL ($p < 0.05$), but no difference was found for other macro or microvascular complications. Women, lower incomes (< 500 euros per month) and low education level (less than primary school) were also associated with lower QL ($p < 0.05$).

Discussion: Patients had in general a bad metabolic control, were obese, old, but had in general a good QOL. Women had lower QOL, which could be explained in our study for being older and having lower education level.

Conclusions: Our findings justify the efforts to assess QOL perception in diabetic patients in order to facilitate achieving better metabolic control.

V-211
HEREDITARY ANGIOEDEMA: AN UNCOMMON DISEASE BUT WE MUST BE AWARE

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Objectives: Hereditary angioedema (HAE) is a rare disease characterized by recurrent episodes of submucosal or subcutaneous reversible edema at various locations (mainly face, extremities, gastrointestinal tract, genitals, and larynx). It's a genetic autosomal dominant disorder characterized by decreased expression or loss of function of C1 esterase inhibitor (C1-INH). The incidence of this disease is 1 in 10,000 - 50,000 people. Our objective is to analyse the main clinical characteristics and the evolution of the patients diagnosed of HAE in our hospital.

Material and method: Descriptive study designed to describe all the patients diagnosed of HAE in the Hospital POVISA. We analysed all the epidemiological information, consultation motives, family history, clinical manifestations, levels of C4, C1-inhibitor (functional and quantitative), treatment and evolution.

Results: Eleven patients were identified (4 male and 7 female) with HAE belonging to 5 families. All of them began with the symptoms in the youth, and only one of them was diagnosed at 76 years. The consultation motives were: facial edema in 6 cases, familiar study in 3, laryngeal edema with breathing difficulty in 1 and abdominal pain in one. The clinical manifestations were episodes of facial edema in 6, genital edema in 2, extremities edema in 5, crisis of abdominal pain in 6 and one patient with laryngeal edema that needed mechanical ventilation. One patient was completely asympthomatic, but it was diagnosed during a familiar study. Regarding to blood tests findings 10 patients (91%) showed a quantitative deficit of C1 inhibitor and in 7 decrease of the activity of C1. In addition 6 were presenting decreased level of the C4. In one patient, the determination of the C1 INH was normal (quantitative and functionally), as well as the C4 and the crises improved with withdrawal of the oral contraceptives. This patient was diagnosed of HAE without C1-NH deficiency (previously called type III). We did not identify an specific trigger although a patient had crisis in relation to minor traumatism. Two received prophylaxis with anchafibrin, 2 with danazol and 1 with estanozol, resulting in the decrease of the number of the episodes a year.

Conclusions: We must suspect HAE in patients with edema of upper airways or in other locations, on recurrent episodes of abdominal pain. Because this disease is very rare, it is not uncommon for patients to remain undiagnosed for many years It is important to ask about family history and for the detailed characteristics of the episodes since in some cases they consult when the episode has been already solved.

V-212
INCIDENCE AND SYMPTOMS OF COMMON ALLERGIC REACTIONS IN INPATIENT AND OUTPATIENT CLINIC OF DEPARTMENT OF INTERNAL MEDICINE IN SECONDARY HOSPITAL

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Objectives: Skin Drug Reactions are the most common clinical presentations of drugs' side effects Detection of allergic reactions and the study of clinical and laboratory results.

Material and method: Retrospective study of 275 patients with allergies, hospitalized or admitted at the ER in the period 2009-2011.

Results: 20% hospitalized patients in Department of Internal Medicine. 5% admitted at the ER. 0.1% life threatening situations. Males 60%. Females 40%. See Table.

Conclusions: 1. Allergic skin reactions tests (patch/pricks) are reliable and may detect and justify the causes of skin drug reactions. 2. Allergic reaction high suspiciousness when: a) recent opening of a new drug substance, b) accompanying symptoms (fever-lymphadenopathy-eosinophilia), c) prior infection (2-3 weeks earlier). 3. Allergic reactions are common in respiratory infections probably due to atopy. 4. Skin Drug Reactions are not always identified in the early stage and might have systemic complications.

V-214
POSTGRADUATE EDUCATION IN INTERNAL MEDICINE IN EUROPE

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Objectives: The requirements for qualification and certification in Internal Medicine are known to vary between countries but

Table 1 (V-212)

1. Most common allergic reactions	- Urticaria and angioedema 150 (54%) - Maculopapular rush 93 (33%) - Fixed drug eruption 27 (9%) - AGEP 3 (1%) - Stevens - Johnson syndrome 2 (0.7%)
2. Most common clinical and laboratory findings	- Syncope 7% - Diziness/nausea 5% - Fever 30% - Lymphadenopathy 25% - Eosinophilia > 1500/?L, 45% - Atypical Lymphocytes 15% - High E.S.R. 25% - High AST, ALT, GGT 8% (amiodarone, sulfonamides, phenitoine) - Asthma-dry cough-bronchospasm 37%
3. Comorbidity	- Respiratory infections: acute bronchitis 75 (27%), pneumonia 15 (5%), flu syndrome 35 (12%) - Urinary tract Infections 48 (17%) - Herpes 2 (0.7%) - Neurological diseases (brain insults-epilepsy) 40 (14%) - Other (anaemia, high tumour markers, etc.) 60 (21%)

information on the differences is not readily available. This could potentially pose problems when certified internists move to a new country within the European Union and are expected to be competent in a number of tasks for which they have not received proper training. Thus, the harmonization of postgraduate medical education and qualification in Europe has become more important than ever before. We describe the results of a survey of postgraduate education in Internal Medicine in Europe.

Material and method: In 2008 and 2009, the European Board of Internal Medicine launched two online surveys of Internal Medicine in Europe, one on the practice of internists and the other on postgraduate training in Internal Medicine. An invitation to participate was sent by e-mail to the presidents and secretaries of national Internal Medicine societies of all 30 member states of the European Federation of Internal Medicine. The responses were reviewed by Internal Medicine residents from the respective countries. Descriptive analysis of the data on postgraduate training in Internal Medicine services was carried out.

Results: Twenty-seven countries (90%) responded and approved their datasets. The length of training ranged from four to six years and was frequently five years. The majority of countries offered training in Internal Medicine followed by a sub-specialty. A 2- or 3-year common trunk of Internal Medicine was commonly a component of sub-specialty training programmes. Hospital inpatient service was the predominant setting used for training. Qualification was frequently determined by the duration of training. A final certifying examination was in place in nearly half of the countries.

Discussion: This survey is the first attempt to generate information on postgraduate education in Internal Medicine in Europe. The results demonstrate some similarities and significant differences in Internal Medicine training between individual countries. The length of Internal Medicine training is broadly similar, averaging 5 years, and remains the main component required for qualification. Training in both Internal Medicine and a sub-specialty appears to be common. A common trunk of Internal Medicine is required in sub-specialty training programmes in the majority of countries.

Conclusions: There appear to significant differences in the structural framework, content and governance of postgraduate training in Internal Medicine between countries in Europe. Harmonisation of the curriculum of training programmes and the requirements for specialty qualification in Internal Medicine in Europe would be highly desirable.

V-215
FABRY DISEASE: A PURPOSE OF AFFECTED MEMBERS IN TWO NAVARRESE FAMILIES

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Objectives: Review of the clinical presentation of Fabry disease in two Navarrese families.

Material and method: Retrospective study by reviewing the medical records of 9 cases of Fabry disease. Parameters taken: demographic variables, clinical presentation at diagnosis, diagnostic methodology, multiorgan involvement, clinical course and treatment. The genetic diagnosis was based on the detection of alpha-galactosidase gene mutation (GLA) in patients with high clinical suspicion or compatible explorations (glomerular deposition in renal biopsy or myocardial involvement in RM) (index cases, n = 3). Subsequently other 6 cases were diagnosed by a family genetic study from the index cases.

Results: In our series 9 patients presented the mutation, 7 of them with clinical involvement (4 females, 3 males) and 2 asymptomatic (1 male, 1 female). The mean age at diagnosis was 54 years (range 34-83). The presentation of the index cases was in the form of acute renal failure in 2 cases, and as retrieved sudden cardiac death in another case. The mean age at diagnosis of index cases was 39 years (range 34-48). Of all of the studied subjects 7 (77.8%) had cardiac involvement between the third and fifth decades (6 cardiomyopathy, 4 deposit RM, 4 valvulopathy, 7 arrhythmia).Renal involvement was observed in 2 patients (22.2%) between the second and fourth decade: 1 with hypertension and acute renal failure requiring renal replacement therapy, and another with renal failure and not nephrotic range proteinuria. 4 patients (44.4%) had neurological symptoms, stroke remains the dominant problem (3 patients). Of the other symptoms associated with the disease, 2 patients had corneal verticilata, 2 bilateral neurosensorial hearing loss, 2 with changes in bowel habits, 1 angiokeratomas, 2 psychiatric disorders (depression) and 1 musculoskeletal involvement. The 3 index cases and 1 patient with heart disease progression, received from the diagnosis the enzyme replacement therapy. In the subsequent evolution

(average rating 54 months) no data of progression of the disease was found.

Discussion: Fabry disease is a disorder of glycosphingolipid metabolism, deficiency of the lysosomal enzyme alpha-galactosidase (GLA), which causes the accumulation of ganglioside Gb3 within the lysosomes. It is an inherited X-linked disorder predominantly in men, although in our series there is similar gender distribution (male vs female 55.5% 45.5%). Although the estimated prevalence of the disease in the general population is low, the presence of 2 families carrying the mutation in our community makes the prevalence higher than the expected. The clinical expression is variable, predominantly in Navarre late-onset forms from the 3rd decade and usually incomplete. It is noteworthy that cardiac involvement is widespread, with great clinical heterogeneity. Although nephropathy is described in the literature often associated with Fabry disease, only 2 patients had renal involvement. Neurological involvement is also seen significantly. Other typical symptoms (angiokeratomas, acroparesthesias, anhidrosis, etc.) have not been seen so often in this study.

Conclusions: According to the number of cases studied, the prevalence of this disease could be underestimated. Some nonspecific symptoms in young adults, including heart disease, stroke or chronic kidney disease, not justified by other causes, may lead to the diagnosis. Early diagnosis allows access to a specific treatment that can slow the progression of the disease. The main limitation is its high cost. Consequently it could help more targeted determinations of enzyme activity to select candidates for the treatment. The multisystem involvement in Fabry disease requires a multidisciplinary approach for diagnosis, treatment and monitoring of this complex pathology.

V-216
GOALS AND PITFALLS IN OXYGEN THERAPY IN AN INTERNAL MEDICINE WARD

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Objectives: The objective of this study was to evaluate the procedures for oxygen therapy in an Internal Medicine ward, comparing it with the criteria established by the British Thoracic Society (BTS) in the consensus document "BTS guideline for emergency oxygen use in adult Patients".

Material and method: On 23rd September of 2011 were audited procedures for oxygen of all patients admitted to the Medicine Department of our Hospital on oxygen therapy or with oxygen therapy prescribed. Data was collected on prescribing, administering and monitoring oxygen therapy.

Results: Of 76 inpatients, 33 met the inclusion criteria. There was a prescription for oxygen therapy in 91% of cases. All prescriptions were for a fixed dose, but none of them defined all the necessary parameters. The absence of the duration of oxygen therapy and monitoring were the most frequent errors. Oxygen was administered to all patients for whom it was prescribed. Although only 31% of prescriptions were set FiO_2 or debit card, the system of administration corresponded to that prescribed in all patients. No patient had a prescription for SpO_2 goal.

Discussion: The oxygen treatment is common and important in the wards of Internal Medicine. However, several studies show that it is not practiced according to the best care. There were several errors in the procedures of oxygen, particularly in the requirements for a fixed dose, putting patients at risk.

Conclusions: Although recommended by the BTS, the specifications of the objective of oxygen by SpO_2 range are still a minority.

V-217
ELECTRONIC CLINICAL RECORDS, COMPLEMENTARY EXAMS AND PRESCRIPTION SOFTWARE: CAN WE HAVE THE PERFECT SYSTEM?

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Objectives: The objectives in this survey are to determine adequacy and the possible causes of failure in computerized hospital information systems (CHIS) of a Distrital Hospital, and therefore to conclude how can we improve the future applications and adapt them to our necessities as healthcare workers.

Material and method: We conducted an anonymous online Survey, data was collected about: sex, age, healthcare professional group, rate of satisfaction about design, interface, overall performance, adequacy to clinical practice, ease of use, response, interaction with other applications and Technical Support response time. The data was analyzed using the open-source software Statistics Open For All (SOFA) and Microsoft Excel (R).

Results: In total 70 persons completed the survey: most were females (76%), 40% with ages between 20 and 30; 27% doctors and 50% nurses; the majority were not so happy about the interface and adequacy to clinical practice, although 50% claim that the technical support is fast, most are unhappy with the number of computers available and their performance. The majority of workers are not against computerized hospital information systems (CHIS) but want better, more intuitive and less time consuming applications.

Discussion: Most of studies in this field reveal that great investment has gone into computerized hospital information systems (CHIS) worldwide, but more than 3/4 is considered to have failed improving the productivity of health professionals. And it is a well known fact that CHIS are bringing dissatisfaction on those cases by underestimate their necessities. In our survey, the overall healthcare workers are unhappy with their CHIS, most say that the applications are too complex and not adequate for clinical practice, consuming a great amount of time for data input. There seems to be a reduced number of computers available for the demands and their performance is lower than expected. Computer virus/malware is appointed as the main reason for reduced performance on our windows OS based computers.

Conclusions: We believe that healthcare companies could provide more versatile and simple applications, relying on field testing and providing free updates more frequently to accurately meet the high requirements of healthcare professionals. When introducing a new system, there must be a field based implementation phase with the involvement of healthcare workers of different departments. These Key-Players should work together with the Information Technology Department, providing constant feedback on the applications, so they can be more easily adapted to the reality and chaos of the Hospital work.

V-218
UTILITY OF THE QUANTIFICATION OF HIGH FLUORESCENCE CELLS IN PLEURAL AND PERITONEAL FLUID FOR NEOPLASM DIAGNOSIS

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Objectives: To evaluate whether the detection and quantification of cells with high fluorescence in an automatic counter Sysmex XT

4000® in pleural and peritoneal fluid is associated with a diagnosis of malignancy.

Material and method: We evaluated retrospectively the pleural and peritoneal fluid that had been analyzed by Reference Laboratory of Catalunya at the Hospital del Mar de Barcelona. The Reference Laboratory had a definitive diagnosis. Samples had had to be collected into tubes containing EDTA 3K. High fluorescence cells were quantified. Fluids were divided into two groups: neoplastic and non neoplastic origin. Fluids with incomplete data were excluded. Breakpoints were searched for discriminating malignancy. Chi-square test with Fisher's correction was applied when necessary for proportions comparison.

Results: During the period 2009-10 168 fluids were analyzed (62 pleural and 106 peritoneal). Of these, 18 pleural and 8 peritoneal fluids had a neoplastic cause. In the case of the pleural fluids, a percentage of fluorescence cells greater than or equal to 4% was associated with the diagnosis of neoplasia (16 of 18 neoplasic liquid (88.9%) versus 20 of 44 non-neoplastic (45, 5%), p = 0.0016). When the cutoff was at 5%, it remained statistically significant (14 of 18 vs 77.8% neoplastic liquids 19 of 44 non-neoplastic (43.2%), p = 0.013). In contrast, no association was found between a high percentage of fluorescent cells as above 4% and malignancy in the peritoneal fluid (4 of 8 liquids neoplasic (50%) vs 57 of 98 non-neoplastic (58.2%).

Discussion: We define high fluorescence cells as those cells that are not classified by the automatic cell counter Sysmex XT 4000® from pleural and peritoneal fluids. This subset of cells are not leukocyte lineage and interpretative value is unknown. We wanted to evaluate whether the detection and quantification of cells with high fluorescence in an automatic counter Sysmex XT 4000® in pleural and peritoneal fluid is associated with a diagnosis of malignancy. In pleural fluid, automatic identification of a percentage of 4% or greater of cells with high fluorescence is associated with the diagnosis of neoplasia. In the other hand, this association has not been found in peritoneal fluid.

Conclusions: The 4000® autoanalyser Sysmex XT identifies a cell type which is non-leukocyte lineage and designated as high fluorescence. In pleural fluid, automatic identification of a percentage of 4% or greater of cells with high fluorescence is associated with the diagnosis of neoplasia.

V-219
HOME HOSPITALIZATION IN CANCER PATIENTS

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Objectives: Hospital at home (HaH) is a program of integrated care unit, depends on Medical and Nursing Direction. The aim of this study is to compare the characteristics and outcome of cancer patients with acute medical complications admitted to a HaH program with a hospitalized control group.

Material and method: Prospective cohort study. The study period was January 2008 to September 2011. 366 cancer patients with acute complications requiring complex medical care were included, 247 of whom were attended in HaH program and 119 received in-hospital care. The statistical analysis was performed by means of Fisher's exact test, Student's t test and logistic regression analysis using the software IBM SPSS Statistics version 20.

Results: There were no significant differences in sex and age between the study groups. No statistically significant differences were found in the proportion of tumor types, being lung cancer the most common malignancy in both groups, followed by gastrointestinal tract tumors, breast cancer and genitourinary malignancies. 64.4% and 77.1% of patients received chemotherapy respectively (palliative or curative), but this difference was not significant. The most common reasons for admission were respiratory infection/pneumonia, febrile neutropenia, fever without a clear clinical focus, urinary tract infection, cellulitis and venous thromboembolism. The diagnosis of cellulitis was more frequent in patients admitted to HaH than in those admitted to the hospital (p < 0.05). Patients in the conventional hospitalization (CH) group had higher Charlson index (5.3 [SD 1.9] vs 6.4 [SD 1.4] respectively, p < 0.001). Patients admitted to HaH had a lower total stay than those admitted to thehospital (7.6 days [SD 4.8] vs 9.2 days [SD 7.6], p = 0.04). During HaH admission 5 patients (2%) consulted the emergency room for medical complications, 11 patients (4.4%) required hospitalization for clinical worsening, and 3 patients died (1.2%). CH patients had a significantly higher in-hospital mortality (12.6%, p < 0.05). There was no statistically significant difference between the 30-day readmission rate (18% in the HaH group and 21% in the CH group) nor in the 30-day mortality (5.3% in the HaH group vs 2.5% in the CH group). Logistic regression showed that hospital admission was an independent risk factor of mortality during admission (OR 12.8 (95%CI: 3.6-45.2). A survey we carried out among our patients and their carers reflect a high degree of satisfaction with our program: 94% of the former and 95% of the latter stated they would repeat HaH admission.

Discussion: Patients in both groups were similar in age, sex, type of neoplasm and reason for admission. Although CH patients had a higher Charlson index, the adjusted mortality during admission was still higher in this group. Furthermore, HaH patients had a lower total stay compared with CH patients with no difference in the rate of hospital readmissions or emergency room visits within 30 days after discharge. An important limitation of the study is the lack of randomization. For this reason it cannot be completely excluded that the increased mortality of CH patients be due to a selection bias, having been these patients rejected by the HaH team because of an increased complexity of care (requirement of a central venous catheter, need of more than one daily visit by the HaH team). Similarly, the shorter overall stay in HaH may be a consequence of this phenomenon.

Conclusions: Cancer patients often have acute complications associated or not with malignancy requiring hospitalization. The HaH model has proven to be a valid alternative to conventional hospitalization in selected patients with data on mortality, length of total stay and need of hospital readmissions comparable to those of the hospitalized population. Moreover, we observed a high degree of satisfaction of both patients and caregivers with the program.

V-220
DIAGNOSIS, PREVENTION AND MANAGEMENT OF CORTICOSTEROID-INDUCED HYPERGLYCEMIA

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Objectives: Hyperglycemia induced by glucocorticoids (GC) is a common clinical problem. The use of GC is common in patients with chronic obstructive pulmonary disease (COPD) requiring hospitalization. GC-induced hyperglycemia is manifested either worsening a known diabetes or precipitating undiagnosed diabetes. Risk factors for its development are patient-dependent (elderly patients and family history of diabetes) and drug-dependent (dose and type of GC).Control of hyperglycemia during hospitalization is associated with decreased mortality and decreased complication rate, which implies a better prognosis and survival. However, GC-induced hyperglycemia is still an underdiagnosed and undertreated

problem, especially in the absence of specific recommendations and consensus documents. We propose both identifying risk factors for exacerbated COPD patients being treated with corticoids who develop GC-induced hyperglycemia during hospitalization and a diagnosis and treatment for this clinical situation by the professionals in our department.

Material and method: Study design: an observational, descriptive, longitudinal and prospective study. Subject selection criteria: 50 patients admitted to the Pneumology Unit or Internal Medicine with admission diagnosis of COPD exacerbation with maintained steroid treatment at the time of registration were randomly selected. Primary endpoint: Alteration of the first baseline fasting serum glucose defined as glucose greater than 110 mg/dl as the reference values of our laboratory. Ethical: the project was awarded by the AISSA (non-profit-making Association for Health Research in the region of La Safor made up by health professionals).

Results: We analyzed a total of 50 cases, 15 were excluded for not having a definitive diagnosis of COPD or for having other concomitant causes of stress. As for the results of prevalence of sex, 97.1% of the subjects analyzed were male. The average age of patients was 75.5 years. 51.4% of patients were overweight. In terms of personal or family history of diabetes, 25.7% of cases were known diabetic, 36% had previous hyperglycemia by GC, whereas 35.7% of cases had a family history of diabetes. During hospitalization, 77.1% of patients developed impaired fasting glucose. 60.9% of non-diabetic patients developed GC-induced hyperglycemia defined as fasting serum glucose greater than 125 mg/dl. Although 77.1% of cases developed alterations in blood glucose, digital blood glucose measurements were only performed in 42.9% of patients. As for treatment, nutritional intervention strategies diabetic diet was only administered in 31.4% of cases. As for the hypoglycemic drug therapy, it was administered in 54.3% of cases. For those who received treatment: the most common prescribed regimen was the rapid insulin analogues followed by basal-bolus regimen.

Discussion: About three quarters of patients hospitalized with COPD exacerbation and steroid therapy developed alterations in carbohydrate metabolism. Most patients were elderly overweight men and about one third of cases had a family history of diabetes and/or had developed glucose abnormalities prior to GC use. However, despite the high prevalence of risk factors already described and the objectified changes in fasting glucose, there were neither controls for digital blood glucose nor appropriate glucose-lowering treatment was given.

Conclusions: Corticosteroid-induced hyperglycemia in patients with COPD is an underdiagnosed and undertreated problem. More studies are needed to establish the risk factors for development of hyperglycemia induced by CG in order to prevent and diagnose it early. Consensus documents are also needed to tackle the clinical problem to avoid underdiagnosis and undertreatment and to get a greater involvement by professionals.

V-221
PLANE LACTATE CURVE IN FOREARM ISCHEMIC EXERCISE TEST (FIET) IN GLUCOGENOSIS OTHER THAN MC ARDLE´S DISEASE

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Objectives: The aim of this study is to describe the functional and clinical findings in patients with plane lactate curve in the FIET, in which Mc Ardle's disease was definitely ruled out.

Material and method: We selected the patients who showed a plane lactate curve in the FIET, in which the muscle biopsy and histochemical exam ruled out Mc Ardle's disease. All these tests were performed by the Muscle Research Unit of the Hospital Clínic of Barcelona.

Results: From all the FIET performed in our Hospital in the past 8 years (n = 180), three patients with plane lactate curve (graphic 1) and non Mc Ardle's disease were identified. One was a female. In all cases, the symptoms started at 20-25 years-old. Two presented with repetitive rhabdomyolysis and cramps, as well as exercise intolerance. The third case as an exercise intolerance and a chronic non-autoimmune hemolytic anemia. None of them referred second wind phenomenon. Two patients had elevated CK levels in serum. The muscle biopsies and histochemical tests (myophosphorilase) were normal in the three cases. In one case, low levels of phosphofructokinase (PFK) in red boold cells could be demons-trated.

Discussion: There are many clinical similarities between Mc Ardle's disease and the other glucogenosis with plane lactate curve at FIET, except perhaps for the characteristic second wind phenomenon present in Mc Ardle's disease. The FIET allows us to establish groups of patients considering the findings in the test results. In the plane lactate curve group, Mc Ardle's disease is the most prevalent diagnostic, but there are others glucogenosis to be considered. By careful muscle biopsy and the histochemical analysis we could ruled out Mc Ardle's disease in these three patients, and in one of them PFK deficiency was diagnosed. In the other two cases, the levels of phosphofructokinase, phosphoglycerate mutase, phosphoglycerate kinase, and lactate dehydrogenase were normal in red blood cells, but the respective muscle levels remains to be determined yet. One important point to be considered is that any of these diseases have a specific treatment so far.

Conclusions: FIET is considered as a very important screening test in metabolic myopathies, since it represents a cheap, safe, fast and easy test that provides crucial information in the evaluation of these diseases. The plane lactate curve group includes an important group of diseases besides Mc Ardle's that should be evaluated.

V-222
INTERNAL MEDICINE AND MINORITY DISEASES: A 25-YEARS EXPERIENCE IN INBORN ERRORS OF PURINE METABOLISM

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Objectives: Purine metabolic disorders include a variety of clinical syndromes including hyperuricemia and gout, nephrolithiasis, immunodeficiencies, anaemia, diseases of the peripheral and central nervous system and myopathies, all of which may be expressed by considerable variations in serum urate concentrations and urinary uric acid excretion rates. Since 1985 we have coordinated the study of patients with a myriad of purine metabolic minority diseases and we report herein our experience.

Material and method: We have developed a normogram to assess whether hyperuricemia or hypouricemia could be related to increased/decreased uric acid synthesis or decreased/increased uric acid excretion. The specific diagnosis of a given purine metabolic disorder was performed on the basis of clinical, biochemical, enzymatic and molecular data.

Results: We have diagnosed two patients with phosphoribosyl-pyorphosphate synthetase overactivity, 45 patients with hypoxanthine phosphoribosyltransferase deficiency (HPRT, 30 with Lesch-Nyhan disease and 15 "variants"), two patients with xanthine oxidase deficiency, three with renal hypouricemia and 5 families with uromodulin disease. This is most extensive series of HPRT deficient patients followed by a single medical team which enabled,

in addition to carrier detection and prenatal diagnosis, a novel phenotypic classification (type 1, absent or minor neurological manifestations; type 2, evident neurological manifestations that do not preclude an independent life; type 3, dependent life with no self-injury behaviour; and type 4, markedly dependent life with self-injury behaviour).

Conclusions: An internal medical team, provided with clinical genetists, may diagnose and coordinate the medical needs of patients with minority diseases related to inborn errors of purine metabolism.

V-223
PROFILE PATIENTS DIFFERENCES REFERRAL FOR PAIN TO INTERNAL MEDINE CONSULTATION OFFICE (IMCO) OR TRAUMATHOLOGY CONSULTATION OFFICE (TCO)

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Objectives: The global management carried by internal medicine professional makes him able to deal musculoskeletal pathology, musculosketal pain is the main reason for consultation. The aim is to recognize different patient profile referral to TCO and differences with referral to IMCO.

Material and method: From every patient assisted on our IMCO specialized on musculoskeletal pathology. During two months they were selected those patients referral for musculoskeletal pain. Same thing was done with patients referral for same reason to TCO. We made up a descriptive chart analysis from pain location, reason for consultation.

Results: Finally 1408 patients assisted on both CO (725 IMCO/683 TCO), they were selected every patient with musculoskeletal pain obtaining: 213 IMCO/115 TCO. Per pain location area we found: cervical spine 25/33, cervical spine and thoracic spine 0/3, cervical spine and low back pain 2/6, low back pain 3/21, thoracic and low back pain 2/3, low back pain 80/9, knee pain 10/8, metatarsus pain 33/20 and shoulder pain 7/2.

Discussion: On our centre, most patients referral for musculoskeletal pain to IMCO location was column, most low back pain opposite TCO where was more frequent cervical and thoracic spine pain. Also was more frequent metatarsus and shoulder pain management on IMCO and nearly equal for knee pain. Most cases were related to arthrosis on both consultation office.

Conclusions: Global assistance carried by internal medicine professional makes him able to make a correct screening and efficient assistance for these patients, making musculoskeletal pain differential diagnosis. Even degenerative pathology is the main ethiology, we mustn't forget other diagnosis possibilities, included systemic pathologies, and comorbidity.

V-224
CLINIC PROFILE DURING HIGH ASSISTANCE PERIOD ON A HOSPITALARIAN URGENCY OFFICE ON A SPECIALIZED HOSPITAL

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Objectives: Describe clinic and assistance patient profile, assisted on an urgency office during high assistance period.

Material and method: They were included patients assisted on an urgency office by two internal medicine residents, two days, during high assistance period (first of February) 2012. Variables studied: age, sex, time spent on assistance, complementary tests, and development. We create and analyzed a database, making up a descriptive-chart study.

Results: 50 patients. Age between 13 months and 96 years old. 62% men, 38% women. Average time spent 3 hours 28 minutes (maximum 8h 49 min/minimum 18 min). Complementary tests: laboratory tests 36, X-rays 23, EKG 15, CT 1, and ecography 1. Develop: 52% referred to primary assistance, 24% to specialized assistance. 6% to observation, 10% were hospitalized and 4% escape. Reaming were discharge without continued assistance.

Discussion: In our centre clinic assistance profile during high assistance period, is defined by patients, most men, wide age range, most of them (95%) were assisted and tested (lab., X- Rays, EKG) without spending more than 5 hours. Most of them were referred to other Services, 10% hospitalized. (See how 4% escapes).

Conclusions: During high assistance period, urgency average time spent becomes higher also; increase pluripathology patients number assisted, being essential internal medicine resident vocation to deal with pluripathology patients and efficient assessment as complementary tests correct indication.

V-225
BED CLINICAL PROFILE TURNOVER ON INTERNAL MEDICINE DEPARTMENT ON A SPECIALIZED HOSPITAL FROM SAS

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Objectives: Recognize patient clinic profile, hospitalized on a bed at Internal Medicine Department.

Material and method: We choose a bed from IMD in our centre, where patients from other Services can also be hospitalized, during one-year (May 2011- April 2012) and made up with them a descriptive prospective - chart study. Studied variables: patient basic profile, original service, diagnosis and reason for hospitalization, development and time spent on hospital.

Results: Considered bed closure for making improvements on floor or holyday summer period. 31 patients. Age: average 72 (25-90). Sex: 54.84% men/45.16% women. Hospitalization department: 77.42% on IMD, Neumology (9.68%), Cardiology (6.45%), Urology (3.23%) others (3.23%). Original Service: Emergency Services referred 83.87% (Consultation office-64.52%, observation 19.35%). Patient from other Services, Medical Services and ICU 6.45%, Medical Day Hospital 3.23%. Reason for hospitalization: 32.6% dyspnea, 16.13% fever, chest pain and gastrointestinal symptoms 9.68% each, 6.45% fast auricular fibrillation (FAF) and miscellany (highlighting pleural effusion, paresthesias and lower limb edema). Discharge diagnosis: 25.8% sepsis (most of urinary sepsis - 19.35%) 19.35% heart failure (HF), 16.13% respiratory infection, 9.68% neoplasia, 6.45% FAF, 3.23% miscellany (decubitus ulcer infection, chronic renal failure, ischemic heart syndrome, diarrhea, pancreatitis, prostate surgery, pleural effusion for study). Develop: 30 patients discharged, one transferred to private center. Average time hospitalized: 10.26 days.

Discussion: In our study, patient profile: men (over 50%) average age 72, referred from Emergency Department (over 80%), dyspnea on fever context; being diagnosis discharge, after average time

spent hospitalized 10 days, sepsis followed by heart failure. These data analyzed on a single bed during a year in IMD, nearly same patient profile it is found on every bed from IMD.

Conclusions: On patient hospitalized profile usually appears multimorbidity. In this group is frequent reentry for acute fever syndrome which makes unbalance on comorbidity. Global view made by internal medicine professional makes him able for effective management and deal with multimorbidity patients.

V-226
CREATIVITY AND DEPRESSION IN CONTEMPORARY TALENTED ARTISTS WOMEN

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Objectives: Although there have been several studies on psychopathology and creativity in great artists, they have focused almost exclusively on male authors and still very few studies have addressed this issue among women well-known creators. This work explores the prevalence of depressive disorders and suicide among women recognized artists of the XXth century.

Material and method: Because the difficulty of selecting relevant artists with a consensus we have chosen as selection method the consultation of 10 prestigious publications, historic and modern comprehensives, in the field of "Women and Arts". Relevant spanish literature also was included to minimize the bibliographic English bias [Linda Nochlin Essay (1971), Guerrilla Girls Manifesto (1987); W. Chadwick book (1992), ABC Art book (1999); U. Grosenick book (2003), Latest Art Monographic (2006), V. Combalía book (2006), M. Illán book (2007), Wikipedia Women Artists on-line (2010), Modern Women at the MOMA book (2010)]. We also examined the lists of artists of 3 major expositions on the subject in the last 5 years [Kiss Kiss Bang Bang, 45 years of Art and Feminism -Bilbao-2007 (44 artists)-; Amazons of the New Art, Madrid-2008 (40 artists)- and elles@centrepompidou -Paris-2009 (132 artists). Artists who appeared in 2 or more of these publications or expositions were included. We examined the artists who died in the XXth century/first decade of XXIth century. We analyzed their biographic data with special attention to a diagnosis, treatment or income for depression.

Results: From the bibliographic sources were examined the references from 550 women contemporary artists. Of these 156 met the criterion of > 2 mentions in relevant literature. Of these 79 were died in XX/XXIth century and were analyzed. These include such famous personalities as Louise Bourgeois, Leonora Carrington, Frida Kahlo, Louise Nevelson or Georgia O'Keeffe. Of these at least in 38 cases (48%) a prominent depressive episode was recorded in their biographies. In 7 cases (9%) suicide attempts occurred, not accomplished in 3 (C. Calhoun, L. Carrington, A. Neel), possibly accomplished in 2 (F. Kahlo, A. Mendieta) and completed in 2 (D. Arbus, K. Sage). Despite these disorders such artists generally achieved longevity and, of nonsuicidal women, the median of survival was 75.0 years and 68% (51/75) exceeded 70 and 43% (32/75) 80 years, respectively.

Discussion: Due to the traditional "invisibility" of women in art a high prevalence of significant episodes of depression among creative artists has gone unnoticed. A significant percentage ended with suicide attempts.

Conclusions: In 5 out of 10 contemporary recognized artists women there was significant depressives episodes that led to attempts or completed suicides in about one out of 10. However, in general, such disorders permitted a prolonged survival because 7 out of 10 of such women exceeded 70 years.

V-227
OBSERVATIONAL STUDY OF CARDIOVASCULAR RISKS ON HOSPITALIZED PATIENTS WITH CHEST PAIN DURING A PERIOD OF 3 MONTHS IN A HOSPITAL OF SECOND LEVEL

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Objectives: Cardiovascular disease is the leading cause of death and disability starting at middle age in developed countries. We propose monitoring the most important cardiovascular risk factors in patients admitted with chest pain.

Material and method: We selected patients for a period of 3 months who were admitted in our cardiology unite with chest pain for a possible ischemic etiology. The study variables were: age, sex, cardiovascular risk factors present, height, weight, waist circumference perimeter. We analyzed the results based on the characteristics of a descriptive study.

Results: There were 68 patients admitted for this cause, 51 (75%) were men. The average age was: 65.45 years (men 66.22, women 63.12) and the BMI was 30.23 (32.07 women, 29.61 men). 60.41% of men exceeded the barrier of 102 cm in abdominal circumference, and 87.50% of women exceeded 88 cm. 72.6% smoked or they did it in the past, the percentage rises at 85.41% if we were referring to men (18.75% active) and 37.5 (25% active) if they were women. The 70.83% of men and 75% of women were dyslipidemic. The 40.62% were diabetic, and there weren't significant differences regarding to gender. About hypertension, there were a 64.58% of men and an 81.25% of women. They admitted having a sedentary life in a 70.31% of the case, without differences between sexes. The CRP was elevated in the 48.43% of the cases which ended in hospital. Women reported not to drink alcohol, although the 41.66% of men admitted doing it indeed.

Discussion: Although public information about cardiovascular risk factors spread by professionals and population, 5 million people enter our hospitals for heart disease in our country. In Spain the 17.65% of the population (SEN) smoke, our patients smoked in the 20.3% of the cases. Women came up to 25%, confirming the tendency to overcome this habit to men. Dyslipidemia was the most prevalent factor of cardiovascular risk, with the 71.9% followed by the HBP with the 68.75%, hypertension is pointed out as the most prevalent in previous studies. In our country it is estimated of having sedentary lifestyle a 55% (WHO) of the population, in our study this figure rose up to 70.31%. In Andalusia there are 12% of diabetics (INE), and it is one of the communities with the highest prevalence, while its patients were diabetics in 40.62% of the cases.

Conclusions: It is well know the relationship between cardiovascular risk factors and coronary heart disease events. However, we can see in our study that every factor was highly prevalent. They are higher than in previous bibliographies, which would indicate the population tends bad heart-healthy habits, probably it is related to social and economic changes of the recent years. In short, we believe it is necessary to reconsider the health educational plans we are offering to our patients.

V-228
CHANGE IN FAMILY DECISION MAKING WHEN IT COMES TO AN ADVANCE HEALTH-CARE DIRECTIVE FORM AFTER A FAMILY MEMBER LIVES AN INTENSIVE CARE UNIT EXPERIENCE (ICU) IN A TERTIARY CARE HOSPITAL THE EXPERIENCE OF A THIRD YEAR INTERNAL MEDICINE RESIDENT

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Objectives: We are aware of the possibility of filling in an advance Health-Care directive form but there are few patients that have done so. The object of this study is to discover if there is a change after living through the experience of a having a family member treated in an ICU.

Material and method: Those included were the immediate family members of patients admitted to the ICU for more than 24 hours in a three month period (the duration of a third year Internal Medicine resident rotation). As soon as the patients were discharged their families were given a questionnaire which asked the following question: After going through the experience of having a relative treated in the ICU would you of previously formalized the Advance Health-care directive form? Foreign patients and those that ended in exitus were excluded. Another study variable: discharge diagnosis. Data was analyzed according to the typical features of a descriptive study.

Results: Out of 28 possible respondents, 21 relatives answered the questionnaire. 76.2% of the relatives change their opinion and would have previously formalized an advance health care directive form. The diagnoses of these patents were: 5 non-ST-segment elevation acute coronary syndrome/St-segment elevation acute coronary syndrome (one of them needed CPR), the rest (sepsis with a variety of origins such as respiratory, urinary, abdominal, peritonitis, acute meningoencephalitis and a high risk post operation hip replacement). The diagnoses of those patients whose relatives did not change their opinion were non-ST-elevated acute coronary syndrome/ST-elevated acute coronary syndrome.

Discussion: Most of the respondents agreed that they would of formalized the advance health care directive form due to the experience lived by their relatives in the ICU. In the case of those relatives who did not change their opinion the diagnosis was non-ST-segment elevation acute coronary syndrome/St-segment elevation acute coronary syndrome.

Conclusions: It is important to be aware of whether or not a critical patient has registered an advance health care directive form. Most patients do not which means that the decision making falls onto immediate family. This experience makes the family members rethink their decision to register an advance health care directive form.

V-229
ADAPTING THE INFORMATION IN BETWEEN THE FAMILY AND THE MEDICAL STAFF IN A CRITICAL CLINICAL SITUATION

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Objectives: To know the family's satisfaction as regards to the information given to them concerning their relatives admitted to the intensive care unit (ICU).

Material and method: relatives of adult patients admitted to the ICU for more than 24 hours were included. On patient discharge the following personal survey was carried out among the immediate family: 1st. During admission, were you informed of the clinical status of your relative? 2nd. Would you rather speak to or be informed by the same doctor during your relative's stay in the ICU? 3rd. The daily information you have received as regards to your relative has been: clear, not clear enough, not clear at all. 4th. Do you agree with the time scheduled for the status update? 5th. Relations with the nursing staff were: fluid, not fluid enough, non existent. Results were analyzed according to the features of a prospective descriptive study.

Results: Total surveyed: 28 (21 answer the survey) 1st. Question: yes, 85.71%. 2nd. Question: yes, 77%. 3rd. Question: clear 57.1% 4th question: yes, 76%. 5th question: fluid 62%, not fluid 19%, and non existent the rest.

Discussion: Most family members were satisfied with the treatment/care they and their relatives received in the ICU, although we have detected the need to improve certain aspects of communication between relatives and the medical staff, apart from the fact that people prefer to be informed by the same attending doctor during their relatives' stay ICU.

Conclusions: It is very important to adapt the flow of information between families and medical staff in Internal medicine and critical care situations. The complexity of the situation makes this difficult to achieve and it is really important for medical assistance to be provided by the same doctor.

V-230
FROM HEART ENZYMES SERIALIZATION TO CORONARY CATHETERISM DESCRIPTIVE PATIENT ANALYSIS WITH HEART ENZYMES CHANGES AND CORONARY CATHETERIZATION ON A SPECIALIZED HOSPITAL FROM SSAP

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Objectives: Recognize percutaneous transluminal coronary angioplasty (PTCA) importance on patients from Emergency Department with chest pain who have, or not, biochemical changes sings for myocardial damage on our center.

Material and method: Patients from Emergency Department assisted for chest pain with biochemical changes sings, or not, for myocardial damage, 12-24 hours before, during 2011, were included. Studied variables: heart enzymes change (sing for myocardial damage), develop on acute ischemic coronary syndrome (AICS) and PTCA done.

Results: 392 patients. Troponin, CPK and CPK-MB, 12-24 hours before with changes on 38.9%. Develop AICS on 57.6%. Done PTCA on 96.46% patients.

Discussion: Our aim is to prove biochemical parameters for myocardial damage do not turn positive early enough on patients who need invasive techniques immediately, being necessary to make a global ischemic evaluation (biochemical data, clinical and electrocardiographic changes).

Conclusions: Ischemic coronary syndrome is increasing on population. Now patients are older and carry more comorbidity, these patients are usually hospitalized on Internal Medicine Department when, no invasive or surgery techniques are not going to be done. Comprehensive assessment for acute ischemic coronary syndrome (biochemical, clinical and ECG changes) is important to make an effective approach on this clinical entity.

V-231
CLINIC MEN PROFILE, HOSPITALIZED ON CRITICAL CARE UNIT FROM A SPECIALIZED HOSPITAL FROM SAS

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Objectives: Identify clinical and epidemiological men profile, hospitalized on Critical Care Unit (CCU) on our hospital, during 9 months between 2011-12.

Material and method: Descriptive chart study 240 men included (72.2%) about 330 patients from Emergency Department who were referred to CCU during this period. We analyze variables such as age, sex, reason for hospitalization, time spent on hospital, toxic habits, cardiovascular risk factors, concomitant diseases and diagnosis. Analysis was done by SPSS 15.0 statistic program.

Results: Average age 60 years. 67.1% referred from Emergency Department, 5.8% Surgery, 4.6% Cardiology and 4.5% Critical Care Unit from other hospitals. 17.5% Died. Regarding cardiovascular risk factors (CVRF) we noticed 19.2% were smokers, out-smokers 9.2%, alcohol abuse 21.7% previous alcohol abuse 2.9%. 35% were diabetic, hypertensive 32.9%, 12.5% obese and 26.7% dislipidemic patients. 58.3% precious ischemic coronary syndrome, 40.8% PDCO, heart failure 23.8%, oncologic illness 8.3%, chronic renal failure 7.1% and 3.3% stroke. Most prevalent reason for hospitalization was acute coronary syndrome 43.3%, followed by septic shock 3.3% and stroke 4.6%. Average time spent on CCU was 4.47 days whit diagnosis discharge acute coronary syndrome 42.2% followed by stroke 5%, severe pneumonia 4.6%, shock 4.2% complicated surgery 2.9% and pancreatitis 2.9%. Discharge Services were: Cardiology 56%, Internal Medicine 13.1%, Surgery 5.6%, another CCU 5.5%, Neurology 3.5% and Digestive 3%.

Discussion: Results show patient hospitalized on CCU mainly come from Emergency area, who have a considerable global cardiovascular risk. Main reason for admission is acute coronary syndrome situation beings referral afterwards to Cardiology during next 24h.

Conclusions: Men clinic patient profiles admitted on CCU: 60 years old, CVRF and previous Myocardial Ischemia, more than half sample entered on CCU for new coronary event or stroke. Target main service: Cardiology followed by Internal Medicine (13.1%) probably for making a global approach on these patients.

V-232
EFFECTIVENESS OF A SIMPLE REMINDER INTERVENTION TO REDUCE THE DURATION OF URINARY TRACT CATHETERIZATION AND INTRAVENOUS FLUID THERAPY

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Objectives: To determine whether a simple reminder intervention decreases the duration of urinary tract catheterization and intravenous fluid therapy.

Material and method: In October 2010 a ward of the internal medicine department began a daily meeting of clinicians and nurses in which twice a week a recommendation to remove indwelling urinary catheter was reminded. This meeting was not performed in other wards. We retrospectively reviewed the nursing records of the patients admitted to internal medicine in October 2010, January 2011, May 2011 and October 2011. The patients were divided into two groups: group I, patients attended by the team with reminder intervention and group II patients attended by other teams without this intervention. For each patient we collected data for age, gender, living in nursing residence, Barthel index, Norton scale, intravenous fluid therapy, urinary catheter placement, duration of urinary catheterization, delirium during hospitalization, major diagnostic category, and length of hospital stay and weight of the diagnostic related group. Quantitative data are presented as mean (standard deviation) and qualitative data as absolute frequencies (percentage). Comparison between the two groups was performed using Mann-Whitney U-test and Chi^2 test. In all analysis P-values < 0.05 were considered statistically significant.

Results: During the study period there were 768 admissions and we included 747 (97.3%). The mean age was 74.3 (15.1) years and 389 (52%) patients were women. During hospitalization 260 (15%) had an indwelling urinary catheter inserted and 519 (69%) intravenous fluid therapy. The majority of patients (172, 64.9%) were catheterized in the emergency department, 60 (22.6%) in the internal medicine unit and 29 (10.9%) were permanent carriers. The score on Norton scale was worse in Group II patients (14.5 ± 4.6 vs 15.3 ± 4.7; p = 0.02) but there were no differences in Barthel index (64 ± 38 vs 67 ± 39; p = 0.32). Group II patients were most frequently catheterized (39.1% vs 31.7%; p = 0.03), for more days (7.9 ± 7.2 vs 6.0 ± 6.4 days; p = 0.03) and more frequently were catheterized at discharge (15.2% vs 10.1%; p = 0.04). There was no difference in the frequency of use of fluid therapy but duration was longer in group II (5.2 ± 4.6 vs 4.1 ± 4.0 days: p = 0.004). There was no difference in the presence of pressure ulcers nor in the incidence of delirium. The average length of stay trended to be higher in the Group II (9.97 ± 8.19 vs 8.92 ± 6.84 days; p = 0.058).

Discussion: Inappropriate use of indwelling urinary tract catheters is widespread and is associated with urinary tract infections. In our study a simple reminder intervention was associated with less use of urinary catheters and with a decrease in the duration of urinary catheterization and intravenous fluid therapy.

Conclusions: A simple reminder intervention can help to decrease the indwelling urinary catheterization and to short the duration of urinary catheterization and intravenous fluid therapy.

V-233
CLINICAL PROFILE OF PATIENTS WITH DIAGNOSIS OF GESTATIONAL DIABETES (GD) IN A HOSPITAL OF SPECIALTIES OF THE SAS

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Objectives: The GD is an entity that generates increased risk of fetal-neonatal, taking as a feature be symptomatic in the mother. For this reason knowledge of risk factors is important for making the detection and diagnosis of GD and can introduce treatment and multidisciplinary follow-up of pregnant women, in order to reduce maternal and perinatal morbidity and mortality.

Material and method: It is a descriptive study in which during 9 months (June 2011-February 2012) patients with diagnosis of GD were analyzed. Study variables: age, number of previous pregnancies/miscarriages, risk factors for GD, month and method of diagnosis, treatment.

Results: Total of patients: 28. Middle ages: 31 years. Of these patients the 35.7% were first-time mother, had a previous pregnancy the 32.1%, two previous pregnancies the 21.4% and three previous pregnancies 3.6%. A history of miscarriage was present in the 21.4% of patients and two abortions in 3.6% of patients. The most frequent risk factors among these patients were: age 25 (96.42%), family

history of diabetes mellitus (35.7%), Overweight/obesity (32.14%), polycystic ovary syndrome (14.2%), previous GD (10.7%) and glucose intolerance (3.57%). The month of diagnosis of DG was: 3rd month (14.2%), 4th month (17.8%), 5th month (25%), 6th month (21.4%), 7th month (17.8%) and 8th month (3.5%). Patients with more than two risk factors, taking into account the age as one of them, were the 42.8%, which were diagnosed the 17.8% before the 5th month and the 82.2% from the 5th month. With 50 g of glucose screening test was used for the diagnosis of GD to weeks 24-28 and confirmation with 100 g of glucose test (basal, 1st time, 2nd time, 3rd time). Showed alterations in the four values 17.8% of patients, three values the 21.42%, two values the 39.2% and 1 value (repeated on two separate occasions) the 7.14 per cent. Became valuation of treatment, either diet, exercise and/or insulin in order of frequency from the: 5th month (28.57%), 6th month (25%), 7th month (25%), 4 month (17.8%), 3rd month (7.14%) and 8th month (3.5%). They needed insulinotherapy the 32.14% of patients.

Discussion: GD usually begins in the middle of the pregnancy. The fact of knowing the risk factors for gestational diabetes, prenatal screening tests should be made before 24 and 28 weeks, however, our study shows that this only occurs in 30% of cases. Age, family history of diabetes, and overweight/obesity were risk factors that most were related to the development of diabetes. Of the total of patients, they needed insulin around 30% coinciding with the percentage described in the bibliography, the rest was controlled with diet and moderate regular physical exercise.

Conclusions: It is important to make a diagnosis and early treatment of patients with GD for prevention of possible complications both the fetus and the mother.

V-234
COMMUNICATION VARIABILITY IN AN INTENSIVE CARE HEALTH SITUATION PERCEIVED BY THE MEDICAL/ NURSING STAFF ARBITRATE BY AN INTERNAL MEDICINE RESIDENT IN AN ANDALUSIAN HEALTH SERVICE HOSPITAL

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Objectives: To discover the variability of communication in an extremely serious clinical situation as perceived by the medical and nursing staff in the ICU (Intensive Care Unit) analyzed by an Internal medicine resident.

Material and method: An Internal Medicine resident carried out a survey concerning the personal satisfaction of family members.

among ICU medical and nursing staff. The survey includes the following questions: 1st. Is it easy for relatives to find the ICU on the first day? 2nd. Are the family always informed of the clinical situation of their relatives when they are admitted? 3rd. Do you think family members understand the information received during the admission of their relative? 4th. Do you think that the family receives enough information concerning visiting hours, unit rules, etc. from the nursing staff on admission? 5th. Do you think the family should always receive information from the same doctor? 6th. Do you think that family members would rather sit down beside their relatives during visiting hours? 7th What do you think the family-nurse relationship is like? (very fluid, fluid, non existent) 8th. Do you think that the family receives help from the nursing staff to facilitate communication with their relative? A prospective descriptive study design was applied in the ICU over a three month period.

Results: Total surveyed: 33 (15 doctors/18 nurses). 1st question: yes, 33.3% doctors/35% nurses. 2nd. Question: yes, 83.3% doctors/58.8% nurses. 3rd. Yes 67% doctors/23.5% nurses. 4th. Yes: 92% doctors/89% nurses. 5th. Yes: 75% doctors/95% nurses. 6th. Yes, 58.3%doctors/59% nurses (17.63% no answer). 7th. fluid, 75% doctors/58.8% nurses: yes, 83.3% doctors/76.47% nurses.

Discussion: The majority of doctors and nurses agree that it is difficult to find the ICU on the first day. They are also satisfied with the information received by the family concerning the clinical situation of their relatives on admittance and the care provided by nurses. More nurses agree that the family should receive information from the same doctor than do the doctors themselves. However, almost 50% of nurses think that the family is not always informed of the situation of their relative on admittance versus 83.3% of doctors who believe it is. Moreover, the majority of doctors think that relationships between the family and the nursing staff are fluid, while, in the opinion of 42% of nurse it is low or non-existent.

Conclusions: Doctor-patient, doctor-nurse, family-medical staff communication is very important. It is in situations of extreme gravity when it becomes of greater importance to establish good patient-family-medical staff communications and relationships. It is however, more difficult to achieve. However, it is also more difficult for this to be achieved under these circumstances.

V-235
DOES SEASONAL VARIATION AFFECT ON THE AVERAGE STAY OF PATIENTS WITH ACUTE COPD?

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Objectives: During the last years the Chronic Obstructive Pulmonary Disease (COPD) prevalence and comorbidity have increased. The aim of this study is to determine whether there are differences in the average stay of patients requiring admission for acute COPD in the different seasons of the year.

Material and method: Observational, retrospective, transversal and descriptive study, in which we have reviewed the reports of patients discharged consecutively at the Hospital Clínico Universitario Lozano Blesa from Zaragoza in the period from January to December 2011, being the first or second diagnosis COPD (ICD 491), emphysema (ICD 492) and chronic airflow obstruction (ICD 496). We reviewed a total of 516 reports, extracting demographic data and average stay. To analyze the information we have classified the patients in quarters, considering the first quarter, December, January and February, second quarter, March, April and May, third quarter, June, July and August and fourth quarter, September, October and November. Statistical analysis of the information has been realized considering significant differences $p < 0.05$.

Results: There have been checked a total of 516 cases, 20% of the included patients were women (N = 77) and 80% men (N = 299) with an age average of 74.4 years (SD: 10.72 years). The average patient stay was 12.75 days (SD: 10.77 days) with the following distribution for quarters: the first quarter 196 cases (38%) with and average stayof 13.07 days (SD: 13.12 days), the second quarter 117 cases (22.7%) with average stay of 11.62 days (SD: 7.69 days), the third quarter 93 cases (18%) and average stay of 11.88 days (SD: 7.97days) and fourth quarter110 cases (21.3%) with average stay of 14.11 days (SD: 10.96 days). Comparing the average stay for quarters no statistical significance differences were found ($p = 0.283$).

Discussion: Analyzing the information obtained in our study, we can observe that seasonal pattern exists, with a major number of cases in the coldest months of the year. The first quarter is the one with higher prevalence, with 196 cases (38%), and within this, the month of January (80 cases, 15.5%). As well as other similar studies undertaken in the same way, no statistical significance differences were found for the average stay of these patients on the different

seasons of the year. It would be necessary to extend the study to analyze differences considering confounding factors such as age, sex and comorbidity.

Conclusions: COPD exacerbation admissions show a clear seasonal trend in our country, however, the length hospital stay is not significantly dependent on the time of year when income occurs.

V-236
SEVERE HYPERKALEMIA: CLINICAL AND ANALYTICAL PRESENTATION

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Objectives: To describe the clinical characteristics of patients with marked elevation of serum potassium concentrations attending emergency department (ED) metropolitan hospital. It also aims to show factors and consequences related to this electrolyte disturbance.

Material and method: A retrospective study, through review of medical and laboratory reports, was carried out for all patients presenting to ED (medical ward) with serum potassium levels greater than 6.5 mmol per litre (mmol/L), over one-year period (2011). This survey was conducted to identify demographic features, main admission symptom, medical history, laboratory results: levels of serum potassium (mmol/L), glomerular filtration (GF) estimated by abbreviated Modification of Diet in Renal Disease equation (ml/min/1.73 m^2)), electrocardiographic manifestations and consequences. Descriptive and analytical research methods were used. Qualitative variables were expressed as frequencies (percentages) and quantitative variables as medians (25th and 75th percentiles). Statistical analysis was performed using non-parametric tests and linear regression. A two-tailed p value less than or equal to 0.05 was considered statistically significant.

Results: A total of 57,456 emergencies were attended in ED during the study period. Two hundred and twelve subjects had an analytical report with serum potassium levels higher than 6.5. However spurious analytical results were removed and 74 subjects were considered eligible. The median age of patients was 77 (67-84) and female to male ratio 1:1.7. The most common admission symptoms were: systemic (malaise or fatigue) 25 (34), breathlessness 12 (16) and decrease in level of consciousness 10 (14). Fifty seven (77) were hypertensive and 40 (54) patients had diabetes. Thirty-five (47) were already diagnosed as having chronic renal disease, 11 (31) of them had end stage renal disease and were undergoing dialytic support. Chronic heart failure and liver cirrhosis were suffered by 22 (30) and 13 (18) patients respectively. Forty nine (66) subjects were being treated with any diuretic: 40 (82) loop diuretics, 24 (49) potassium-sparing and 21 (43) both drugs regime. ACE inhibitors and angiotensin II receptor antagonists were used by 22 (30) and 23 (31) patients respectively. The median value of kalemia was 6.88 (6.72-7.23) and GF 18 (8-31); significant inverse relationship between kaliemia and GF was observed (B = -0.009; p = 0.017). There was no significant difference in the serum potassium levels when it was compared among patients who were taking any diuretic drug and those who were not. In 45 (61) medical reports was found a described electrocardiogram and the most frequent electrocardiographic manifestations was QRS prolongation (5 (11)). Emergent hemodialysis was required by 11 (15) patients, a temporary pacemaker was inserted in 5 (7) and 54 (73) were hospitalized; 3 (4) died during their stay in ED.

Discussion: Within the proper limits of study design (retrospective, deficiency in contents of the medical record), a series of patients with marked hyperkalemia were reviewed.

Conclusions: In this survey severe hyperkalemia mostly appeared in male elderly patients, who went through systemic symptoms as predominant clinical presentation. Nearly a half of subjects suffered from chronic renal disease and one-third in end stage, requiring dialytic support. No significant difference in kalemia was found among patients with diuretic therapy and those without. Few electrocardiograms were reported by ED physicians and the most common change was QRS enlargement. Invasive techniques were required in a few patients.

V-237
A DESCRIPTIVE STUDY ABOUT HOSPITAL ADMISSION ADEQUACY FROM EMERGENCY SERVICE IN A GENERAL REFERENCE HOSPITAL, USING TAEP (THE APPROPRIATENESS EVALUATION PROTOCOL)

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Objectives: 1. To assess the hospital admissions adequacy from Emergency Service using TAEP. 2. To compare the TAEP criteria with clinical opinion. 3. To compare the results of two years study before and after agreeing strategies of action to prevent inadequate admissions.

Material and method: Design: Descriptive two cross-sectional observational study. Study population: Patients who had been admitted to the Medical Department of a regional Hospital from the Emergency Service, in February 2011 and February 2012. Measurements: Clinical, analytic and sociodemographic variables were extracted from medical histories. The adequacy of admissions was examined using TAEP and with the clinical opinion of three emergency expert clinicians. We made a descriptive cross-section in February 2011 and then we made another one in February 2012 to compare results. We compare the results of both cross-sections, before and after agreeing strategies of action to prevent inadequate admissions.

Results: In the comparative phase we analyzed the admitted patients in February 2011 and in February 2012. There were no significant overall difference between both groups: 45% of the patients were men and the mean ages were 75 years. The hospital stay was from 8.4 and 9.6 days respectively. 10% of patients were derived from PADES' department or from Pneumologic or Oncologic Ambulatory Hospital and 10% of theme were institutionalized patients. A 30% of patients were derived from another medical professional and a 70% came to emergency by themselves. A total 30% of the patients were readmitted patients (more than three admissions in the last five years or more than two admissions in the last year). As a comorbilities, there were no relevant differences between both groups (29% had diabetes, 58% HTA, 38% dyslipidemia, 36% COPD, 54% cardiopathy and 25% oncologic pathology). Most patients' visits were visited in the morning (66%). The cause of admission was to avoid the delay of the ambulatory studies in 11% of patients. There is no relation between the appropriateness and the age of patients (p = 0860 and p = 0.787 respectively). The two groups did not differ significantly with respect of adequate admissions based in TAEP criteria (80% February 2011, 85% February 2012, p = 0.35). In the other hand, there was a significant difference about the adequation of admissions between two groups since the point of view of clinicians (69% February 2011, 84% February 2012, p = 0.012).

Conclusions: A fifth part of the admissions to the Medical Department could have been prevented. The proportion of inappropriate admissions was 20% by TAEP and 17% by medical

criteria. Since strategies to prevent inadequate admissions were applied, there was a tent to reduce the inappropriate admissions according to TAEP criteria (20% and 15%) and a significant droop of the inadequate admissions according to clinician opinion (31% and 16%).

V-238
COMORBIDITY AND COPD: DOES IT MATTER?

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Objectives: During the latest years, medical community is becoming aware of the importance of the association of chronic obstructive pulmonary disease (COPD) with other diseases. Heart failure (HF), diabetes mellitus, atrial fibrillation and ischemic heart disease (IHD) are some of the most commonly associated conditions. There are however few studies analyzing the influence of comorbidity on outcomes, such as mortality, and length of hospital stay among patients suffering COPD exacerbations. Objectives: 1. To know the frequency of associated conditions in patients admitted at hospital for COPD exacerbation. 2. To study the influence of comorbidity on outcomes, in terms of mortality, length of hospital stay and readmissions during follow-up.

Material and method: A transversal, retrospective and observational study was made. The study was developed at HCU "Lozano Blesa". All discharged reports made with the main or second diagnosis of COPD exacerbations (ICD 491, 492, 496) in the year 2011 were reviewed. Comorbidity, age, sex, chronic oxigenotherapy, readmissions, intensive care units stay. Charlson index was determined and statistical analysis was made. Statistical study was made with the SPSS software 13.00. A descriptive study and normality study with Kolmogorov-Smirnov and Shapiro Wilk tests were made. Subsequently, the comparisons were in accordance with these previous results.

Results: 516 reports were reviewed. 80% were male, mean age was 74.44 years (Confidence Interval (IC) 95%: 74.4-75.36). 435 (43%) were admitted in Internal Medicine, 48.3% in Pneumology and 8.7% in other Units. 93 patients (18%) had been admitted in hospital, at least once, during the three previous months. 50 patients (9.7%) were admitted during the first month after discharge. HF (29.3%), IHD (16.3%), diabetes mellitus (18.4%) and vascular disease (19.6%) were the most frequently associated diseases. Mean Charlson index was 4.91 (SD: 2.13) for the entire cohort. The difference in Charlson index among patients admitted in Internal Medicine or Pneumology was highly significant (5.56 vs 4.38, $p < 0.01$). Mean length of hospital-stay was 12.76 days (SD 10.77 days $p = 0.05$). ICU admission was required in 4.5%. Mortality was for the entire cohort was 4.7%.

Length of hospital-stay increased with comorbidity ($p < 0.05$) but was independent of age. Charlson Index was higher among deceased as compared to survivors (6.2 vs 4.85; $p < 0.05$) The need for admission in intensive care unit was neither related with early or late readmissions nor with comorbidity. ($p = 0.34$; $p = 0.36$ and $p = 0.83$).

Discussion: Although comorbidities are linked to ageing, they seem to be further more than a simple and innocent association. According to our results, comorbities, especially vascular diseases, are common in patients admitted at hospital for COPD exacerbations. In addition, the burden of such comorbidities has an actual impact on outcomes among patients with COPD. Readmission rate and mortality are correlated with the number of associated conditions. Charlson index, an easy and reproducible item seems to be useful in evaluating prognosis of patients admitted for COPD exacerbations and might help for risk stratification.

Conclusions: 1. Comorbidities are common among patients admitted at hospital for COPD exacerbations. 2. Comorbidities but not age are correlated with poorer outcomes in terms of readmission and mortality 3. Charlson index might help in risk stratification of patients with COPD exacerbation.

V-239
CLINICS CHARACTERISTICS OF HOSPITALARIAN CONSULTATIONS ASK DURING ONE YEAR BY MEDICAL AREA TO INTERNAL MEDICINE (IM) FROM A HOSPITAL OF SPECIALITIES FROM SSPA

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Objectives: Know clinic characteristics of patients consulted for IM by other medical areas on our hospital.

Material and method: They were included consultations registered on IM Clinical Management Unit, from other medical areas between January 2011 and December 2011. Variables studied: age, sex, number of reports per month, origin, consultation character, reason for consultation. Information was analyzed based on proper characteristics of descriptive study.

Results: Total request: 68. Middle Age: 65 years (average 72 years). Sex: 58% men. Month on which more consults were realized was January (19.11%) and least, October (1.5%). Origin: Digestive System (26.5%), Cardiology (22%), Psychiatry (16.2%), Neurology (14.7%), Pneumology (11.7%), Nephrology (7.35%), Hematology (1.5%), others (0.05%). Consultation character: ordinary (22%), urgent (19.2%), priority (2.9%) and very priority (1.5%). Main reason for consultation: IM service patient transfer (29.5%), service most requests: Digestive System (35%), followed by Neurology (20%), Pneumology (15%) and Nephrology (15%), Cardiology (10%) and Hematology (5%). Middle age of these patients was 71 years old and main reason to transfer was for treating itself about pluripathology patients or with infectious associated process. Secondly, consults were done for diagnosis from a sign or symptom on 27.9%, (except fever and infectious processes): low conscience level, dyspnea, constitutional syndrome, anemic syndrome, etc. Other consults objective was treatment adjustment or beginning pharmacological treatment (19.11%), mainly about arterial hypertension treatment (15.4%), antibiotics management (15.4%), ions management (15.4%) and Diabetes Mellitus (7.7%), others (46%). Finally, consultations were realized for managing infectious processes and/or fever on 11.7% and pain control on 11.7%.

Discussion: Main reason for consults realized to our service of Internal Medicine was patients' transfer with age older than 65, and with pluripathology. Services with more number of consultations request were: Cardiology, Psychiatry and Digestive System, latter is the one with more transferred request. An important percentage of consults were done with urgent character.

Conclusions: Relation among different welfare hospitable services is based mainly on medical consultation Internal professional labor based on his integral formation, fundamental on the population clinical management on continuous aging and with a major comorbidity.

V-240
CLINICAL CHARACTERISTICS OF PATIENTS WITH DIAGNOSIS OF HYPOTHYROIDISM DURING PREGNANCY IN A HOSPITAL OF SPECIALTIES OF THE SSPA

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Objectives: The hypothalamus-pituitary-thyroid axis presents changes in normal women during their pregnancy. The transplacentary passage of thyroxine (T4) particularly during the first trimester of pregnancy, acquires great importance for fetal development. Therefore we analyze the profile of patients diagnosed gestational hypothyroidism (GH), as well as the personal background and most frequent factors.

Material and method: We analyzed the patients presenting with diagnosis of GH from June 2011 and February 2012. Those patients were excluded from the study with diagnosis and treatment for thyroid disorders prior to pregnancy. Study variables: age, no. pregnancies, intake of iodized salt, clinical history, diagnosis, presence of antithyroid antibodies, beginning of treatment time.

Results: Patients with GH total: 52. Average age: 30 years. First-time mother: 38%. Taking iodized salt prior to pregnancy the 17.3% of patients and were the diagnosis in treatment with supplements of iodine the 78.8%. A family history of thyroid pathology (23.07%), tobacco (13.5%), prior, resolutely and untreated thyroid pathology (13.46%), gestational diabetes (3.84%), diabetes mellitus (1.9%). At the time of diagnosis, TSH levels presented an average value of: 6.72 µUI/ml (figures from 3.43 µUI/ml up to 19.43 µUI/ml). A 19.23% of patients had positive antithyroglobulin antibodies, 34.61% thyroid peroxidase antibodies and 17.3%% of the patients had a goiter. T4L levels showed an average value of 1.04 ng/dl and T3 0.33 ng/dl. The middle of initiation of treatment with thyroid hormone was at 11 weeks.

Discussion: The personal background that is more related to the appearance of GH were: family history of thyroid disease, smoking and prior history of thyroid disorder. Most of the patients had subclinical hypothyroidism. All patients started treatment with supplement with iodine and thyroid hormones, in most of them being the home for better control in the first two quarter (1st T: 55.76% and 2nd T 36.53%).

Conclusions: Maternal T4 is relevant for ripening and fetal brain development both in the first quarter, when the fetus does not produce its own thyroid hormone, as in the second quarter, the clinical impact in the newborn will depend on of iodine deficiency. Therefore, the routine detection in pregnant women, being a single diagnosis by measuring free T4, TSH and antithyroid antibodies is justified.

V-241
ACTIVITY OF A NEWLY IMPLANTED HIGH RESOLUTION OUTPATIENT CLINIC IN A TERTIARY HOSPITAL

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Objectives: Describe the results obtained after implementation of a high resolution outpatient clinic (HROC) in the Internal Medicine Department during the period of February 1 or October 31, 2011. To quantify the diagnostic results obtained, the time elapsed during the diagnostic process and techniques used. Ask the main limitations and alternatives for improvement in the circuit.

Material and method: Data collected over eight months of all patients referred to the Internal Medicine HROC according to the protocol established by the Service (study of severe microcytic and macrocytic anemia,constitutional symptoms, peripheral lymphadenopathy, masses of different location, fever of unknown origin (FUO) and metastasis of unknown primary). We collected demographic data, days until the first visit, until the end of the process, type of process studied, service of source, procedures carried out, delay in conducting examinations, final diagnoses and final diagnoses by global initial syndrome, as well as successes and failures of the circuit. "Failure" was considered when the patient needs hospitalization.

Results: During a period of 8 months were sent to the HROC 135 patients. We excluded 23 patients (17% of total) by inappropriate referrals conditions not included in the protocol HROC. In the 112 patients included there were 58 males (52%) and 54 women (48%) and a mean age of 63.8 years (SD 17.8 and range 14-93). Were performed a mean of 2.2 visits per patient (SD 0.9).We had 5.2 days on average to the first visit (SD 3.8) and 13.6 days until the second (SD 9.8), 5.6 days until the first diagnostic procedure performed (SD 5.4) and 12.5days until the second (SD 11.9). The mean time from first visit until the end of the process was 19.14 days (SD 17.11). The processes studied were mainly microcytic anemia, followed by constitutional syndromes. The patients source was predominantly Emergency Room (ER) (87.5%), followed by Primary Care (4.46%), and other outpatient clinics (3.57%). The procedures performed were mainly CT (66 total), followed by biopsies (20), endoscopies (18 gastroscopies and 17 colonoscopies), fine needle aspiration (FNA) (15). The destinations HROC discharge circuit were: 30% internal medicine, 19% primary care, and other outpatients clinic of different specialties. The 83% of cases (93) were considered "successes" (defined as "reaching the diagnosis without the patient's income"). Of the patients classified as "successes" were admitted at hospital 8.6% (for biopsy) vs 73.7% of the "failures" (for different reasons, mainly poor clinical situation). This difference at hospitalisation between "successes" and "failures" was significantly (p 0.0001) without sex or age differences.

Discussion: It will be necessary to clarify the concept of success and failure, not only in terms of hospital admission. So, we must consider another fields as totally time to reach a right diagnosis.

Conclusions: The recently implemented HCOR is useful for the rapid diagnosis of common diseases in Internal Medicine. In our group of patients we found that 80% of patients were seen within 7 days, the mainly service of source was ER (87.5%). Also, we registered TC as the most common procedure near from FNA biopsies and gastrointestinal endoscopy. We obtained as mainly final diagnosis the cancer (36% metastatic at diagnosis time) and iron deficiency anemia (21%) of various etiologies. Finally we considered an acceptable number of cases (83%) as ´successes´ avoiding hospital admissions.

V-243
ASSESSING QUALITY OF LIFE IN PATIENTS WITH GAUCHER DISEASE

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Objectives: The objective of this study is to evaluate quality of life in patients with Gaucher disease after initiation of replacement enzyme therapy.

Material and method: We used a validated questionnaire to evaluate quality of life before initiation of replacement enzyme therapy (RET) and after 2 and 4 years in two patients with active

treatment out of three followed in an Internal Medicine department in the last 7 years. We have utilized the questionnaire WHOQOL-BREF (World Health Organization Quality of Life Questionnaire; WHOQOL Group, 1993). This questionnaire is one of the two different versions of quality of life questionnaire made by the WHO. With 26 questions, it evaluates quality of life broken down into four sections: physical health (1), psychological health (2), social relationships (3), and environment relationship (4). This questionnaire is widely validated worldwide.

Results: In the last 4 years, we have started RET in 2 of 3 patients affected by Gaucher Disease in our Internal Medicine department. This questionnaire evaluates the satisfaction rate in the 4 sections previously mentioned. Patient 1: before therapy he presented 38% in physical health, 44% in psychological health, 56% in social relationship and 50% in environment relationship. After 4 years of treatment the results were 56%, 63%, 69% and 56%, respectively. Patient 2: before therapy she presented 56% in physical health, 56% in psychological health, 44% in social relationship and 44% in environment relationship. After two years of treatment the results were: 56%, 56%, 50% and 50% respectively.

Discussion: There are three subtypes of Gaucher disease: Type 1, 2 and 3. Of those, type 1 starts in adulthood, and it is usually defined as non-neuropathic. Since 1993 the substitutive enzymatic therapy with recombinant enzyme (imiglucerase) and velaglucerase alpha is available. Therapy should be initiated individually and focused on achievement of therapeutic objectives established by internationals guides. Main goals are: elimination or improvement of symptoms, prevention of irreversible damages and improvement in global health and quality of life. We decided to initiate RET in 2 of 3 patients with Gaucher Disease in our Internal Medicine department. In the first patient, because of the radiologycal evidence of bone disease. In the second patient, therapy was started because of severe thrombocytopenia despite splenectomy in childhood. In both cases, besides symptomatic improvement and stabilization of disease progression, we found a global improvement in quality of life, with advances in all four categories evaluated. An increased monitoring should be done in these patients to evaluate quality of life in the future, after several years of RET.

Conclusions: A significant improvement in quality of life was shown in patients with Gaucher disease after initiation of Replacement Enzyme Therapy, through a correct symptomatic control and stabilization in disease progression. In the 4 categories evaluated, the biggest increase in satisfaction was found in environment relationship, probably because of increasing availability of resources and treatments for these patients.

V-244
RISK OF NEUROLOGICAL IMPAIRMENT AFTER TRANSFEMORAL AORTIC VALVE IMPLANTATION

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Objectives: The aim of this study was the prospective investigation of neurological impairment after transfemoral aortic valve implantation.

Material and method: The study included patients with severe symptomatic aortic stenosis treated with transcatheter self-expanding corevalve system. Other inclusion criteria were: aortic valve area < 1 cm^2 (< 0.6 cm^2/m^2); aortic valve annulus diameter in the range 20-27 mm; diameter of the ascending aorta at the level of the sinotubular junction minor or equal to 40 mm (small prosthesis) or ≤ 43 mm (large prosthesis), and femoral artery diameter > 6 mm. The endpoint of the study was the presence of any clinical focal neurological impairment after the procedure, until discharge.

Results: The study included 56 patients with a mean age of 77.9 ± 6.5 years, a mean aortic valve area of 0.63 ± 0.2 cm^2 and a mean logistic EuroSCORE of 14% (13.4%). After valve implantation, the maximum echocardiographic transaortic valve gradient decreased from 84 ± 21 to 12.4 ± 5 mmHg. No patient presented with greater than grade 2 residual aortic regurgitation on angiography. The procedural success rate was 100%. No patient died during the procedure. Definitive pacemaker implantation was carried out due to atrioventricular block in 16 patients (28.6%). Regarding neurological evaluation, the endpoint presented in two patients (3.6%) that developed cerebellar ataxias; one of them transient and another persistent.

Discussion: Degenerative aortic stenosis is a pathology related to old population, as in our study. Transfemoral aortic valve implantation is a valid option for old people and for those with high surgical risk, and its safety and security have been demonstrated in several studies. One of the most frequent complications of the Corevalve device is the atrium-ventricular conduction disturbances. The prevalence of permanent pacemaker implantation shown in our study is concordant with this fact, but it is lower in this work. The rate of cerebrovascular strokes appears low.

Conclusions: Our early experience indicates that percutaneous aortic valve replacement is a safe therapeutic option for patients with severe aortic stenosis who are at a high surgical risk. The incidence of neurological impairment due to the procedure is low.

V-245
SEX INFLUENCE ON THE RESULTS OF THE AORTIC PROSTHESIS (COREVALVE) IMPLANTATION ACCORDING THE CRITERIA OF THE VALVE ACADEMIC RESEARCH CONSORTIUM

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Objectives: To analyse the results of the transcatheter aortic valve implantation (TAVI) depending on the sex of the patient, following the standardized definitions of security and efficacy proposed by the Academic Research Consortium to facilitate comparisons among different studies.

Material and method: Results analysis depending on the sex of a total of 116 patients with severe aortic stenosis in which TAVI was performed. Statistical analysis with SPSS 19.0 (percentages, χ^2 and Fisher's test for discrete variables, mean and standard deviation and Student t for continue variables; p minor to 0.05 indicates statistical significance).

Results: The 56% of the patients were female. Male patients showed more comorbidity: previous coronary revascularization 21.6 vs 6.2% (p = 0.015), chronic obstructive pulmonary disease (COPD) 29.4 vs 7.7% (p = 0.002), chronic treatment with bronchodilators or esteroids 27.5 vs 12.3% (p = 0.034), dyslipemia 43.1 vs 27.7% (p = 0.082), previous conduction abnormalities 43.4 vs 28% (p = 0.095) and need for percutaneous coronary intervention previously or during the TAVI (13.7 vs 4.6%, p = 0.081). Female patients tended to have more frequent major complications at the vascular access point (12.3 vs 2%, p = 0.038) and percutaneous seal failure (13.8 vs 3.9%, p = 0.065), but there was not any difference in the major vascular complications appearing (6.2 vs 2%, p = 0.27). Acute renal

failure was more frequent in male (19.6 vs 1.5%, p = 0.001). There were no differences concerning the device success (86.3 vs 93.8%, p = 0.14), nor the 30 days mortality (7.8 vs 4.3%) nor the security combined outcome (86.3 vs 83.1%).

Discussion: Transcatheter aortic valve implantation is a consolidated procedure that has become an alternative option to treat severe symptomatic aortic stenosis in those patients with high surgical risk. Recently, the VARC has proposed security and efficacy result definitions to evaluate this technique. In our study, we have considered these definitions to design this study.

Conclusions: We have not found differences between male and female patients according to the success of the device nor the security combined outcome to 30 days. Male patients had more incidence of acute renal failure post-procedure and female patients had more complications at the vascular access point.

V-246
FACTORS ASSOCIATED WITH THE ONSET OF DELIRIUM DURING HOSPITALIZATION IN INTERNAL MEDICINE

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Objectives: To determine the factors associated with the onset of delirium in patients admitted to an Internal Medicine department.

Material and method: We retrospectively reviewed the nursing records and diagnostic related groups of the patients admitted to internal medicine in October 2010, January 2011, May 2011 and October 2011. For each patient we collected data of age, gender, living in nursing residence, Barthel index, Norton scale, intravenous fluid therapy, urinary catheterization, onset delirium during hospitalization, presence of pressure ulcers, major diagnostic category, length of hospital stay and weight of the diagnostic related group. Quantitative data are presented as mean (standard deviation) and qualitative data as absolute frequencies (percentage). Comparison between the two groups was performed using Mann-Whitney U-test and Chi^2 test. We performed a logistic regression model with the significant variables in the univariate analysis. In all analysis p-values < 0.05 were considered statistically significant.

Results: During the study period there were 768 admissions and we included 747 (97.3%). The mean age was 74.3 (15.1) years and 389 (52%) patients were women. During hospitalization 97 (13%) patients had delirium. Patients with delirium were older (81.5 (11.0) vs 73.3 years (15.4); p = 0.0003, lived more frequently in nursing residences (43.7% vs 20.2%; p = 0.0001, and scored lower on Barthel index [41 (37) vs 69 (37); p = 0.0002] and on Norton scale [11.9 (4.3) vs 15.3 (4.6): p = 0.0003]. Respiratory diseases were more frequent in patients with delirium (32.0% vs 20.3%; p = 0.02) and the digestive ones less (9.3% vs 18.9%; p = 0.005). There was no difference in diseases of the nervous system. Indwelling urinary catheterization (58.8% vs 31.9%; p = 0.006), intravenous fluid therapy (81.4% vs 67.6%; p = 0.006) and presence of pressure ulcers (23.7% vs 12.9%; p = 0.005) In the multivariate analysis only age [HR 1.03 (95%CI 1.00-1.06); p = 0.02] and urinary tract catheterization [HR 1.80 (95%CI 1.05-3.08); p = 0.03) were associated with delirium. The average length of stay [11.5 (8.6) vs 9.1 days (7.4); p = 0.007] and the expected health resource consumption measured by the weight ofGRD [2.00 (1.07) vs 1.61 (0.94); p = 0.0007] were higher in patients with delirium.

Discussion: Patients of Internal Medicine departments are old and often have more than one disease. Using records of nursing 13% of them suffer delirium during hospitalization and indwelling urinary catheterization is associated with the onset of delirium. We think that nursing records can be useful to identify situations and procedures associated with the onset of delirium. Intervention studies to determine whether a decrease in urinary catheterization is followed by a decrease o onset of delirium could be very interesting.

Conclusions: Using nursing records and administrative database, the onset of delirium during hospitalization is associated with age and urinary catheterization.

V-248
PRIMARY MITOCHONDRIAL ENCEPHALOMYOPATHIES. CLINICAL PRESENTATION AND OUTCOMES OF 23 PATIENTS

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Objectives: The objective of this study is to present our experience in the clinical presentation, diagnosis, treatment and outcome of a cohort of the primary mitochondrial encephalomyopathies (PME) diagnosed and followed-up in our institution in the last 20 years.

Material and method: An observational analysis of a retrospective cohort of 23 patients who received the diagnostic of PME, studied in the last 20 years in the Hospital Clinic of Barcelona. The diagnosis was made on the basis of clinical phenotype together with muscle biopsy and/or genetic studies and/or biochemical study of mitochondrial respiratory chain. The time of follow-up was 12-240 months and the functional status measured by the validated (NMDAS) Newcastel Mitochondrial Disease Adult Scale. On the basis of clinical complaints, two groups of patients were considered. Those who received specific treatment (vitamins, coenzyme Q10) n = 11, and those receiving only symptomatic treatments (anticonvulsivants, pacemaker...) (n = 11).

Results: The male/female ratio observed was 43/57%. The most common symptoms at diagnosis were weakness, ptosis and hearing loss with a prevalence of (48%, 43%, 35% respectively). The most frequent identified syndromes were MELAS (17%) and Kearns-Sayre with 17%. In all of the 21 muscle biopsies performed RRF (ragged-red fiber) in some percentage were recorded. Genetic abnormalities were found in 73% of the 8 patients studied, and mitochondrial respiratory chain disturbance were observed in 82% of the 9 patients studied. The average rating was 29.7 points (range 4-97) over 145 in the NMDAS scale, with values above the average in the case of patients with Kearns-Sayre and NARP syndrome (66 and 31.5 points) respectively. While 8 patients from the specific treatment group clearly worsened through the follow-up, such figure does occur only in 3 patients from the no specific treatment. Full and maintained recovery was documented only is two brothers suffering from Pearson´s syndrome that were specifically treated. The mean score in the NMDAS of patients with specific treatment was superior to that of patients who had received supportive care.

Discussion: As occurs in other clinical series, a strong clinical variability is documented in the present cohort of PME. The fact that muscle complaints were the main clinical manifestation in all of patients, clearly represent a bias, since all the patents were visited at Muscle Research Unit. Except for the two brothers suffering from Pearson's syndrome, the clinical worsening over time is the rule in PME.

Conclusions: In the present series of PME an heterogeneous clinical presentation together with common progressive disability is clearly demonstrated.

V-249
PANCREATIC MALIGNANT EPITHELIAL NEOPLASMS. ANALYSIS FROM TUMORS REGISTRY OF THE HOSPITAL UNIVERSITARIO 12 DE OCTUBRE FOR 11 YEARS (1999-2009)

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Objectives: To describe the demographic, histological and prognostic features of pancreatic malignant epithelial neoplasms (carcinomas) treated for 11 years at the Hospital Universitario 12 de Octubre (H12O) of Madrid (Spain).

Material and method: In the H12O Tumors Registry (H12OTR) there is a record of all malignant tumors totally or partially seen in our center. There were a total of 26,526 malignancies registered between January 1999 and December 2009 with full follow-up (diagnosis, treatment and posterior monitoring) in our center, of which 513 (1.94%) corresponded to pancreatic neoplasms. The collected information: filiation data, sex, age, date of diagnosis, basis for the diagnosis (i.e. confirmation of malignancy), extension LRD (local, regional or disseminated), type of oncologic treatment, other simultaneous malignancies, final clinical outcome (survival or not), date of death (obtained from the National Death Index) and months of survival. Mesenchymal neoplasms (n = 1), epithelial neoplasms without cyto-histological confirmation (n = 149), epithelial neoplasms of uncertain malignancy (n = 19) and neuroendocrine tumors (n = 33), were excluded from our study.

Results: Of the 311 cases finally included, 180 were men (57.9%) and 131 women (42.1%). The mean age at diagnosis was 65.3 ± 11.6 years. When analyzing the distribution according to cytohistology we found 253 ductal adenocarcinomas (81.4%), 50 SAI (sine alter inscriptio) carcinomas (16.0%), 8 cystadenocarcinomas (2.6%) and 1 acinar cell carcinoma (0.3%). At diagnosis, most tumors were disseminated (n = 183, 58.8%) or had regional (n = 77, 24.8%) extension, with infrequent localized (n = 46, 14.2%) or in situ (n = 3, 0.1%) stages. Regarding the choice of first-line treatment, 30.9% (n = 94) underwent surgery, and 29.6% (n = 92) received chemotherapy, being equally relevant the number of patients not receiving any oncologic treatment (n = 78, 25.1%) or those who were exclusively prescribed palliative care (n = 26, 8.4%). Finally, the mortality was 94.5% (n = 294), with an average survival of 7.3 ± 19.7 months.

Conclusions: Exocrine pancreatic carcinomas are a group of poor prognosis tumors that frequently show extended disease at the time of diagnosis. This determines a poor survival and limits the possibility of applying targeted diagnostic or therapeutic techniques.

V-250
MANAGEMENT OF DIPLOPIA CASES IN A REGIONAL HOSPITAL

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Objectives: The diplopia of non-ophtalmic etiology is a severe clinic entity and has a very broad spectrum of presentation. We work in a regional hospital, where the medical specialty of Neurology or the sub-specialty of Neuro-ophthalmology do not exist. It is therefore established a protocol in the process of diagnosis, monitoring and treatment of diplopias involving several areas: Emergency, Internal Medicine and Ophthalmology. The importance of this study lies in the absence of clinical practice guidelines in the existing literature, partly due to the existence of multiple etiologies responsible for the development of diplopia. The aim is to conduct a descriptive assessment of the management of the diplopia cases assessed in a regional hospital.

Material and method: We conducted a retrospective descriptive study of a series of clinical cases assessed patients who went by diplopia, first in the Emergency Department and subsequently monitored in the Internal Medicine or the Ophthalmology Areas. This study took place between 1st of January 2009 and the 31st of December 2011. Several variables were analyzed, such as: sex, age, type of diplopia, description of affected cranial nerve type, first contact service, cranial CT scan carrying out, period of time between the debut and the first medical assistance at Ophthalmology or Internal Medicine and etiology of the diplopia.

Results: The sample consists on 56 patients, 26 women (46.4%) and 30 men (53.5%). The mean age is 58.5years old (89-23). The type of diplopia stated on the clinical report was horizontal on the debut for the 38% of the cases, non-specified for the 16% and vertical for the 2%. The affected cranial nerve type was defined for the 27% of the cases, showed variability in its determination by 16% of the patients and VI cranial nerve predominated (23%) followed by III cranial nerve (23%) and IV cranial nerve (12%) amongst the cases where it was defined. Emergency was the service which established the first contact with the clinical case in the majority of the situations (54%); the rest were first assessed in the Ophthalmology or the Internal Medicine Areas. A cranial CT scan was carried out in 59% of the cases. The mean period of time between the debut and the first medical assistance at Internal Medicine was 8 days (from 0 up to 52 days). The classification of etiologies: microangiopathic (DM) 48%, idiopathic 17%, thyroid orbitopathy 5%, and others 30%: neuromuscular pathology (myasthenia gravis), ENT pathology, orbital pseudotumor, ophthalmoplegic migraine, tumor (neurinoma-meningioma), S Tolosa Hunt, supranuclear origin.

Conclusions: Microangiopathic (DM) was the most common etiology of diplopias. The collaboration between the areas of Ophthalmology and Internal Medicine has sped up the global assessment of patients with diplopia. The possibility of carrying out an initial assessment followed by a detailed diagnosis of the neuromuscular dysfunction at the Ophthalmology Service appears to be an interesting area for future improvement.

V-251
PROGNOSTIC VALUE OF RED CELL DISTRIBUTION WIDTH (RDW)

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Objectives: Red cell distribution width (anisocitosis index) is currently used as a diagnostic aid in the etiologic diagnosis of anemia. Recently it has been suggested that red cell distribution width may be a prognostic marker for short term mortality in a large sample (74,784) of patients. Objective: to study if RDW is associated to short and medium term mortality in a short patient sample.

Material and method: We have studied 298 consecutive patients (mean age of 74 ± 13 years, 58% male) admitted to a hospital internal medicine unit. Red cell distribution width is measured and routinely reported on every complete blood count, and 15% was the upper limit considered in our hospital. We also determined creatinine, C reactive protein, albumin, ferritin, B12 vitamin and

folic acid serum levels. We assessed short term mortality as in-hospital one and medium term mortality including these patients death after discharged.

Results: Forty patients (13.4%) died as inpatients, and 45 other after discharge (mean follow-up of 574 ± 23 days). We did not find significant differences between in hospital mortality of 171 patients with low RDW (15 or less), 12.3%, and these of 127 patients with high RDW (greater than 15), 15.0%. However, when we assessed medium term mortality by Kaplan Meyer survival analysis, we found that patients with a RDW greater than 15% showed a shorter survival, RR (95%CI) 1.83 (1.19-2.8). RDW significantly correlated with age, hemoglobin, creatinine, ferritin and B12 serum levels. By multivariate analysis, Cox regression with covariates, we observe that the RDW medium term predictive value was independent of age, hemoglobin, serum creatinine, ferritin, CRP, B12 and albumin levels.

Discussion: It has been shown that RDW is a prognostic predictor of death in several studies. Moreover, RDW has proved to be an independent and strong mortality predictor. In our study we show the higher RDW, the higher medium term mortality. The mechanisms underlying the association between RDW and mortality are unknown.

Conclusions: Red cell distribution width, better than to inpatients mortality, is related to medium term mortality. This relation was independent of other factors related to RDW or mortality.

V-252
INDICATIONS OF PLAIN ABDOMINAL X-RAY

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Objectives: Plain abdominal X-ray (PAx) emits 35 times more radiation than chest X-ray and it is often required to implement a routine protocol. Recently guidelines for using PAx in emergency departments (ED) have been published: 1) abdominal pain and ileus suspected; 2) toxic or sharp foreign body suspected. To know indications used by ED physicians to require a PAx, as well as adequacy of them, a study has been carried out.

Material and method: Retrospective and descriptive survey was realized in an ED used by a region with 285,000 people and where 85,685 emergencies were attended in 2008. One hundred and forty PAx were randomly selected among the total of PAx required by ED during February 2009. A review of medical records was carried out to identify demographic features, main admission symptoms, radiologic diagnosis, final diagnosis and consequences. Qualitative variables were expressed as frequencies (percentages).

Results: During the study period, 6,468 emergencies were attended, daily average: 231. Seven hundred and fifty one PAx were performed (27 per day). Mean age was 45 years and 49% were male. Undifferentiated abdominal pain 75 (54), low back pain 18 (13), vomiting 10 (7), malaise 10 (7) and diarrhea 9 (6) were the symptoms which encouraging to request PAx. Among PAx required by ED physicians to diagnose undifferentiated abdominal pain, sixty two (83) did not show any change and 2 (3) were useful to diagnose (ileus and perforation of the gastrointestinal tract). In cases of low back pain, 13 (72) were diagnosed as renal colic and in 1 (8) an image consistent with urinary tract lithiasis was observed. In a patient who was vomiting, intestinal ileus was seen in PAx. The most frequent outcome was discharge home 100 (71) and 6 (4) patients were all brought to urgent surgery.

Discussion: PAx has a limited role in ED. Investigations are useful when the results affect clinical management by confirming or excluding a diagnosis. Although there are clear guidelines to use PAx in ED (ileus and toxic/sharp foreign body suspected), is a common practice the overuse of this radioactive exam with poorly results.

Conclusions: In this survey, PAx is over-required to try to find a diagnosis of syndromes as undifferentiated abdominal pain or low back pain, however mostly radiological findings are clinically not relevant.

V-253
LIMITATION OF THE THERAPEUTIC EFFORT IN INTERNAL MEDICINE

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Objectives: The limitation of the therapeutic effort (LTE) consists in not applying extraordinary or disproportionate measures regarding the therapeutic finality that is based on a patient with a poor vital prognosis and/or poor quality of life. Our objective is to analyse how LTE is valued in our Service, how it is reflected in the Medical Record and in what conditions is it performed.

Material and method: We carried a descriptive retrospective study of the LTE in an Internal Medicine Service of a 3rd level Hospital. In order to accomplish it, we analysed all the deaths produced in our Service in the first trimester of 2012. From such records we collected information on variables like age, gender, day of admission, type of advanced state chronic disease, basal quality of life, severity at admission time, complications during hospitalization, LTE performance, the indicating of palliative actions, the informing of relatives or patients and consensual decisions agreed with the latter, if the termination of the active intervening is established, and finally if the assessment is made in a programmed manner by the responsible doctor or by the doctor in charge at the moment of agony.

Results: In the first trimester of 2012 our service recorded an overall of 90 deaths from which 64% were males. The average of ages involved was 80yo (percentile 75 = 84yo and percentile 25 = 76yo). The most frequent reason for admission was decompensate heart failure, decompensate respiratory failure, community-acquired pneumonia and ischemic stroke. The average number of hospitalization days was 8.28. 72.46% showed advanced chronic disease and 56% poor basal quality of life. 7% had no data on the past records of chronic disease and for 24% there were no records of their basal quality of life. Concerning the vital prognosis at the time of admission, there were no records for 33% of the patients, 4 were admitted in a situation of extreme gravity, 37.6% showed poor general condition at admission, 6% change in overall condition and 20% good general condition at admission time. 40.5% suffered severe complications during hospitalization. From the patients showing LTE, those with chronic diseases in an advanced state and with previous poor life quality (50%) were reflected in the medical record limitation proceeding of 20% as non-CPR indication, 34.2% as decision of non-referred the patient to ICU, 51.42% adopting a conservative decision. Palliative measures were adopted for 54.28% of the cases. Active intervention was adopted for 40% of these patients. Decision was made in agreement with the family in 54.28% of the cases. Only 6 patients were treated by the responsible doctor on the time of death.

Discussion: There are only a few studies in Internal Medicine on LTE, and basically are tests of praxis in isolated cases and discussion papers on the subject, so we could not compare our study with similar ones. The profiles of people who die in our hospital are ancient with advanced chronic disease and poor life quality at baseline. However, as much as 31% of patients are not included

some of these aspects in their personal medical record to determine the attitude key to continue with the patient. Up to 33% are not collected the forecast impression in the first evaluation of the patient. The LTE decisions are reflected few times in the medical record, but in fact they are taken.

Conclusions: There's a need for greater reflection about LTE in Internal Medicine Service given the large number of elderly patients with chronic deterioration that are treated in this specialty, which would improve the quality of care in the process of dying. It is necessary to record a history of chronic disease and basal involvement in deciding the attitude to take. It is also necessary to record the attitudes that are decided to take on the LTE, in order to facilitate the work with the patient and with other physicians who care for the patient in situations of decompensation and agony.

V-254
CANCER OF UNKNOWN PRIMARY SITE IN INTERNAL MEDICINE. OUR EXPERIENCE IN THE LAST TEN YEARS

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Objectives: To analyze the epidemiological characteristics and the clinical evolution of patients with diagnosis of cancer of unknown primary site (CUP) in an Internal Medicine Department in Salamanca.

Material and method: We reviewed the medical records of all patients diagnosed of cancer of unknown primary site in our Internal Medicine Department from May 2002 to May 2012, and collected these data: year of diagnosis, age, gender, metastases location, reason for admission, chemotherapy, surgical treatment, palliative care, days of admission, histological diagnosis, and exitus during hospitalization.

Results: 28 of 12063 admissions from May 2002 to May 2012 were diagnosed of cancer of unknown primary site (0.23%). Sex distribution was 60.7% men and 39.3% women. The mean age was 71 years and the median 76 years, with a range from 43 to 89 years old. The symptoms leading to admission was: 25% abdominal pain, 21% dyspnea, 18% neurological manifestations, 18% constitutional syndrome, and 4% chest pain. The location of metastases was: liver (12), peritoneal carcinomatosis (8), bone (6), brain (5), pleura (3), lung (2), mediastinal lymphadenopathy (2), cerebellum (1) and adrenal gland (1). 71.4% were unique and 28.6% were multiple location. Only in 17.9% of cases the histological diagnosis was obtained. 25% of patients received chemotherapy, none received surgical management, and 75% received palliative care after diagnosis. 14.3% died during hospitalization. The duration of admission ranged from 2 to 43 days, with an average of 15 days and a median of 11.

Discussion: The diagnosis of cancer of unknown primary site is uncommon; it only comprises an average of 3 cases per year in our Internal Medicine Department, with a range from 1 to 6 cases per year in the last ten years. It is often not reach a histological diagnosis in our patients. This is due to two main circumstances: the advanced age of our patients and the advanced stage of their neoplastic disease at diagnosis. The cancer of unknown primary site is more common in men, more frequently elderly. The main symptoms leading to admission at hospital are abdominal pain and dyspnea, followed by neurological symptoms and constitutional syndrome. In connection with this, the most frequent metastatic site is liver. It is also common the dissemination as carcinomatosis peritoneal, bone and brain metastasis. Other location is uncommon. In most of the cases the metastases are unique at diagnosis. Related to the management of these patients, most of them received palliative care after diagnosis, only a quarter received chemotherapy and a few died during hospitalization.

Conclusions: Cancer of unknown primary site is not common. The characteristic patient profile is an elderly man diagnosed of liver metastases or peritoneal carcinomatosis in the course of the study of abdominal pain or dyspnea, in whom after laboratory studies and imaging procedures, the primary site cannot be identified. Most patients diagnosed of cancer of unknown primary site in Internal Medicine do not reach a histological diagnosis because of their advanced age and the advanced state of their neoplastic disease. This fact conditions the subsequent management and bad prognosis of patients, so that most of them will be candidates for palliative care.

V-255
PATIENTS DIAGNOSED FOR THYROID CANCER PROFILE ON A SPECIALITIES HOSPITAL FROM ASPH

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Objectives: Thyroid cancer (TC) is a rare cancer characterized by its slow delay and high percentage of cure with surgery. Our aim is to study clinical characteristics of TC diagnosed patients who come for consultations.

Material and method: Select those patients who attend outpatient of Endocrinology with TC diagnosis. We analyze the following data: sex, age of diagnosis, town of origin, cytology initial by slim needle puncture aspiration, histology with histological subtype by surgical specimen and half of tumor size.

Results: Total: 71 patients. Sex: 76.05% were women. Average age: 42 years old. 3 patients with other previous tumor diagnosis (breast 2, pancreas1). Original Town: 90.15% Puerto real hospitalary area (El Puerto de Santa María 22.53%, Chiclana 22.53%, Puerto Real 14.08%, Conil de la Frontera 7.04%, Barbate 7.04%, Rota 4.22%, other location area 11.26%. Reaming patients belonged to other area than our hospital 9.85% (of these, 4.22% foreign patients were from: Morocco, Indonesia and Romania). According to the initial cytology by PAAF, result was: insufficient sample.

(11.26%), benign (14.08%), nodular hyperplasia (11.26%), follicular proliferation (8.45%), thyroiditis (1.4%), Colloid material (7.14%), oncotic/Hurthle cell changes (4.22%), suspicious of malignancy (7.04%), Ca. papillary diagnosis (9.96%), resulting on 25.35% cases. According to surgical histology specimen: Papillary (76.56%), follicular (21.87%) and spinal (1.57%). If we divide them according to histological subtype: classic papillary (50%), follicular papillary variant (2035%), diffuse papillary (1.56%), micropapillary (4.68%), macrofollicular (7.81%), invasive follicular (4.68%), follicular cells Hurthle variant (6.25%). Average tumor size was 8.34 mm (45 mm up to 2 mm), 13.10% patients had multifocallity and 12.67% had thyroiditis on surgical specimen.

Discussion: According to bibliography, TC affects more often women than men and usually occurs among people aged between 25 and 65 years old, data that match our patient's series. Making through sample PAAF guided with thyroid ultrasound decision was suspicious or malignancy diagnostic on 29.67% cases. Most thyroid cancers are composed of two ways of cancer well papillary differentiated (76.56%) and follicular (21.87%), coinciding with bibliography. Medullary cancer found on our patient's series on a percentage less than one described on revisions (1.56%).

Conclusions: TC cannot cause early symptoms. Most time it debuted with nodule presence on thyroid gland, although it should be noticed only 5% of such nodule is malignant. Diagnostic techniques, as high-resolution ultrasonography and fine needle puncture aspiration (PAAF) allow early diagnosis.

V-256
PARTICIPANT OBSERVATION AS METHOD TO KNOW PERCEIVING QUALITY IN A HOSPITAL EMERGENCY DEPARTMENT: ACCOMPANYING TO A PATIENT AND RELATIVES

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Objectives: To know, using the principles of the participant observation (PO), positive and negative aspects in the attention provided to the patient and relatives in the Emergency Department (ED). To incorporate in the formation of the specialist the experience of the patient and/or caretaker during the healthcare process in the ED.

Material and method: Study carried out in the University Hospital Puerto Real (Cádiz), center located in a state highway that offers healthcare cover to a population of about 300,000 habitants and has 400 beds of hospitalization. Six doctors were selected (fictitious users) in their first year of specialized formation, with different profiles and without previous contact with the health system. With the consent of the patient and/or main caretaker, to each doctor was assigned a patient who was demanding urgent attention, acting like a relative in all healthcare act. In order to be a suitable observation, the initiative was not well-known by the professionals of ED or by other specialists in formation. The participating doctors had got a field notebook in which the different aspects from the system were written down (circuits, information, professionals who take part, duration of the process, impressions and experiences, tangible aspects and suggestions of improvement). Later, it was made a joint session with the residents of first year, people in charge of emergencies, teaching committee and management team to analysis the results and proposals of improvement.

Results: Results and information were analyzed according model SERVQUAL (Service Quality Framework). The negative tangible aspects were related to the signs of the different dependencies from ED, cleaning of the waiting room and simultaneous staying of adult and pediatrics patients. The other aspects were positive. Scientific-technical quality was valued as positive in all the patients and caretakers. In the accessibility was negatively valued the time of delay and the "geographic barrier". As far as the information/communication, the identification of the professionals, the privacy and the lack of a regular and confidential information were the most negative aspects.

Discussion: The PO can allow to improve negative aspects that are common in EDs, specially with respect to communication-accessibility, information, confidentiality, privacy and times of delay. In conclusion, an improvement acting from the citizen perspective. Later, all the actors initiated their health care activity in ED and emphasized in the different vision that has of ED as a professional and as a patient/caretaker.

Conclusions: The PO is an useful tool to value ED quality and the aspects that can be improved. In addition, young doctor´s experience from patient/caretaker´s perspective is enriching in their medical training and human development.

V-257
NONSECRETORY MULTIPLE MYELOMA. REPORT OF 3 CASES AND REVIEW OF THE LITERATURE

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Objectives: To describe the clinical findings and complementary investigations that can guide the diagnosis of nonsecretory multiple myeloma.

Material and method: Review of 3 cases diagnosed in the Internal Medicine department of our hospital. We present a summary of the clinical history and complementary investigations of each case. CASE 1: A 73-year-old woman, with a history of solitary plasmacytoma involving the left iliac blade, treated with radiotherapy in 1998, and left otomastoiditis of a year of evolution, consulted for left peripheral facial palsy. Cranial CT scan showed osteolytic lesion of the left petrous bone, associated soft tissue mass extending into the eardrum, and lytic lesions in cranial vault. Tympanic mass biopsy showed proliferation of mature plasma cells with no other apparent cellularity. Bone marrow aspirate revealed 9% of myelomatous plasma cells. CASE 2: A 60-year-old woman with a history of right mastectomy due to malignant tumor in the year 1989 (not treated with chemo or radiotherapy), was admitted in the hospital with pain in the lower back and right hip. Lytic bone involvement of the entire axial skeleton with soft tissue mass adjacent to the right acetabular roof was observed in plain-film radiography and CT images. Right iliac blade biopsy showed intramedullary plasmacytosis, and bone marrow aspirate revealed 20% of atypical plasma cells. CASE 3: A 54-year-old woman who consulted for musculoskeletal pain, more pronounced in the shoulder girdle, during the past five months. Shoulder ultrasound showed the presence of a solid mass in the depth of the biceps tendon with cortical disruption of the humerus, suggestive of pathological fracture. Skeletal survey and CT scans demonstrated lytic bone lesions of the left humeral head, right scapula, right ischiopubic ramus, D2 vertebral body and right femur. The right scapula biopsy showed a marked infiltration by monomorphic population of mature plasma cells. Bone marrow aspirate revealed infiltration by atypical plasma cells (7%). At the time of diagnosis only patient in case 2 had anemia (Hb 8.9 g/dL) and high beta2-microglubilina (3.4 mg/L, nv < 2.40). In all cases, renal function, serum calcium, erythrocyte sedimentation rate (ESR), proteinogram and lactate dehydrogenase (LDH) were within normal values. Serum and urine immunoelectrophoresis, as well as Bence-Jones proteinuria in 24-hour urine collection were negative.

Discussion: The nonsecretory multiple myeloma is a low incidence disease (< 1% of hematologic malignancies), with a varied clinical presentation and limitations in laboratory findings, as seen in the three cases presented above. When diagnosis is made, these patients often have a more advanced stage of the disease and bone fractures are more common than in secretory myeloma. Therefore it should be considered in the differential diagnosis of patients with persistent bone pain and lytic lesions in radiological examinations.

Conclusions: 1) For the diagnosis of nonsecretory myeloma it is essential to establish a presumptive diagnosis by medical history, due to the absence of analytical repercussion and the atypical clinical presentation. 2) A biopsy of the affected tissue is essential for diagnostic confirmation.

V-258
IMPACT OF HIGH RESOLUTION OUTPATIENT CLINIC I N INTERNAL MEDICINE

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Objectives: Analyze the impact on average length of stay (AS) of Internal Medicine after implantation of the high resolution outpatient clinic (HROC) during the period of February 1 or October 31, 2011.

Material and method: Data were collected over eight months of all patients referred to the Internal Medicine HROC according to the protocol established by the Service. We included processes that are (traditionally in our clinical practice) under inpatient study (iron deficiency anemia, constitutional symptoms, peripheral lymphadenopathy, masses of different locations, fever of unknown origin (FUO) and bone metastases of unknown primary). We evaluated the impact of this intervention on the Service average length of stay comparatively on the hospitalization data for the past two years.

Results: In the last two years we had 69 cases of iron deficiency anemia (AS 9.9), 159 constitutional syndromes (AS 11.5), 12 peripheral lymph nodes (AS 10.8), 69 multiple hepatic lesions (AS 9.5), 56 masses of different locations (AS 10.4), 51 FUO (AS 9.9), and 7 bone metastases of unknown primary (AS 6.6). Compared with the eight months to monitor the HROC, and estimating the number of cases that would have entered this period, we found an important impact on inpatient days. For processes, we have avoided 118.1 days of hospitalization in iron deficiency anemia, 115 days in constitutional syndromes, 75.6 days in peripheral lymph nodes, 47.5 days in multiple hepatic lesions, 39.6 days in FUO, 62.4 days in mass of different locations and 6.6 days in bone metastases of unknown primary.

Discussion: Although the information collected a limited period in time, it is expected that the operation of the QHR causes a significant drop in the average length of stay of the Internal Medicine Department.

Conclusions: Process management for HROC has been an important impact on the average length of stay of service. The processes that have been most affected are iron deficiency anemia and constitutional syndrome. Since the operation of the HROC is still incipient, and would require a further economic study, the data suggest that this formula for frequent process management is an effective and advantageous method to optimize existing resources.

Table 1 (V-258). Average stay in the past two years

Bone metastases	6.6
Masses	10.4
FUO	9.9
Hepatic lesions	9.5
Perypheral lymphadenopaty	10.8
Constitutional syndrome	11.5
Iron deficiency anemia	9.9

Table 2 (V-258). Estimated average length stay of the cases seen in HCOR if they had admitted

Bone metastases	6.6
Masses	62.4
FUO	39.6
Hepatic lesions	47.5
Perypheral lymphadenopaty	75.6
Constitutional syndrome	115
Iron deficiency anemia	188.1

V-259
NUTRITIONAL STATE INFLUENCE IN HOSPITAL ADMITTED PATIENTS DIAGNOSED WITH PNEUMONIA

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Objectives: Analyze nutritional features in patients admitted to the Internal Medicine Ward with the diagnosis of respiratory infection, and the impact of their nutritional status in their follow up and prognosis.

Material and method: Prospective, observational study of all patients admitted to the Internal Medicine Ward of the University General Hospital of Valencia from November 2011 and April 2012 with the diagnosis of low respiratory tract infection. A hundred and eleven patients were analyzed, of whom nutritional assessment was only provided to the ones over 75 years of age (78 patients, 70.2%). Demographic, background, clinical, radiological and biological findings, functional and severity scales, therapy and progress data were collected. Referring to the nutritional analysis (which was performed by the hospital nutritionist), a nutritional diagnosis was established according to the biochemical nutritional parameters collected and the anthropometric study.

Results: Of the 111 patients studied, 56.8% were women and the mean age was 83.55 years, with a mean Barthel index at admission of 30.97 (median 10) and a median Charlson index of 7. Almost half of the patients had been admitted over 2 days during the last year (45.9%) and the 17.1% had received cures by healthcare professional at home on the same period. Frequent visits to the emergency department were observed (64.9%). From all respiratory tract infections, 54.1% were health-care associated pneumonia (HCAP), 12.6% hospital-acquired pneumonia (HAP) and 33.3% community-acquired pneumonia (CAP). Average length of stay (ALOS) was 13.98 days (median 10) and 27% died during hospitalization. Some type of malnutrition was present in 82.8% of patients (37.9% protein, 9.2% calorie and 35.6% protein-calorie), being moderate or severe in 69.4% of cases. Deglutition disorder was find in 47.7% of patients at admission and 3.7% carried a nasogastric tube, although these were not related to a worse nutritional state. A more severe malnutrition status was observed in patients coming from a nursing home (36%, expected 32.1%) with no statistical significance ($p = 0.081$) and in the ones who had had a previous pneumonia (32.7% compared to expected 28.2%, $p = 0.078$). Non-significant difference was found between functional scales (Charlson, Barthel and Performance status) and nutritional state, although there is a trend towards a worse result in Barthel index for the ones with severe malnutrition. A worse nutritional state stands out in patients with criteria for HCAP (62% compared with 56% expected), as well as in those with severe pneumonia (CURB-65 > 3) in whom 35% appears with severe malnutrition, both results with $p = 0.006$. A major trend towards infectious complications in malnourished patients is observed, but with no statistical significance. ALOS in those patients with worse nutritional state (severe malnutrition) was 22.89 days compared to 13.19 days in mild or moderate malnutrition ($p = 0.039$), and there is a higher mortality in moderate-severe malnourished patients (29% compared to 24.1% expected, $p = 0.007$).

Conclusions: Respiratory tract infections are the first cause of admission at the Internal Medicine Ward. It is a pathology with a high morbimortality that affects the elderly and those with important comorbidities. More than half of these cases are associated with healthcare. In patients admitted with pneumonia, the nutritional state declining influences negatively on mortality and ALOS and it also correlates with a greater severity (CURB-65) and a trend towards infectious complications. All of this leads to a difficulty on the management and therapy, and probably on increasing costs. It would be advisable to set up measurements for

an earlier diagnosis of the earlier stages of malnutrition in risk population, to start strategies for its control.

V-260
TREATMENT AND DEVELOPMENT OF BRADYARRHYTHMIAS IN STEMI IN A PRIMARY ANGIOPLASTY PROGRAM

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Objectives: Acute myocardial infarction with ST elevation (STEMI) can be complicated by bradyarrhythmias such as atrioventricular block (AVB) completed. The development and management of bradyarrhythmias in a program of primary percutaneous coronary intervention (PCI) are poorly defined. PURPOSE: The aim is to investigate the characteristics and outcomes of patients (P) admitted with a STEMI complicated with complete AV block, advanced or extreme bradycardia in a hospital with primary PCI program.

Material and method: Are realized a prospectively analysis of 37 consecutive P with STEMI and heart rhythm disturbances undergoing primary angioplasty or rescue PCI from June 2008 and June 2011. Analyzing baseline variables, the therapeutic approach against bradyarrhythmia (drug treatment, need for temporary pacemaker insertion and final pacemaker), the use of beta blockers (BB) at discharge and the presence of hospital adverse cardiovascular events, defined as recurrent ischemia, revascularization and stroke and cardiovascular death during admission and follow-up.

Results: Mean age was 68 ± 13.38 years. 7.4% were women, 21.9% were active smokers, 11.2% had previous ischemic, 55.6% were hypertensive, 25.9% had dyslipidemia and 14.8% were nephropathy. 14.8% of patients were on prior treatment with beta blockers. The incidence of heart rhythm disturbances was the atrioventricular block (AVB) completed (n = 27), advanced AVB (n = 4) or extreme bradycardia (n = 5). The main artery of AMI was the right coronary artery (63%). In 70% of patients underwent complete revascularization. With regard to treatment of bradyarrhythmia atropine was used in 63% of patients and dopamine in 8%. It took the introduction of a transitional MP at 7.4% of cases and a final MP at 5.4%. During hospitalization, 25.9% of these patients had cardiovascular complications and hospital mortality was 11.1%. The use of beta blockers at discharge was 52%.

Conclusions: The effective primary PCI is associated with a rapid rate recovery in patients with STEMI complicated by severe bradyarrhythmias. The need for temporary or permanent pacemaker was very low in this population.

V-261
PROGNOSTIC IMPLICATIONS OF DIASTOLIC DYSFUNCTION IN PATIENTS WITH MYOCARDIAL INFARCTION WITH ST ELEVATION

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Objectives: The aim is to investigate the prognostic value of patients (p) admitted with a STEMI according to their diastolic function, classified into four types of LV filling patterns: Normal (1), impaired relaxation (2), "pseudonormalization" (3), and restrictive (4).

Material and method: Are realized a prospectively analysis of 169 p with myocardial infarction with ST elevation (STEMI) undergoing primary angioplasty from June 2008 to June 2011. Analyzing the incidence of cardiovascular events defined as death, recurrent ischemia, revascularization and stroke during admission and follow-up.

Results: 23% are women, 21.9% were active smokers, 11.2% with previous history of CAD, 65.7% hypertensive, 17.8% obese and 9.5% were nephropathy. The mean age of patients was 69 ± 12.5 years. Based on the filling pattern: 40.8% showed pattern (1), 28.3% pattern (2), 22% pattern (3) and 9.7% pattern (4). Baseline characteristics were similar in all groups. There were no significant differences in symptom onset-to-balloon time or door-to-balloon time. Restrictive pattern was associated with severe left ventricular dysfunction (0%, 5.4%, 14.9%, 21.4%, p = 0.014) and cardiogenic shock (0%, 4.2%, 2.2%, 7.5%, respectively, p = 0.0001). During hospitalization had more cardiovascular events (0%, 18.9%, 6.3%, 33.3%, p = 0.004) and continued to rise during follow-up (10.7%, 13.5%, 4.2%, 46.7%, p = 0.0001). Restrictive filling was associated with total mortality (0%, 5.4%, 0%, 13.3%, p = 0.0001).

Conclusions: The presence of abnormal diastolic function has a worse prognosis both during hospitalization and follow-up of patients with STEMI, particularly in restrictive filling patterns.

V-262
INFLUENCE OF RESIDUAL LEFT VENTRICULAR FUNCTION IN A RESIDUAL PRIMARY ANGIOPLASTY PROGRAM

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Objectives: Numerous studies have found that severe ventricular dysfunction during acute myocardial infarction confers a poor prognosis. Objectives: the aim is to investigate the prognostic value in patients admitted with a ST elevation (STEMI) according to their left ventricular dysfunction (LVEF), classified into two types of patterns: severe or not.

Material and method: Are realized a prospectively analysis 312 consecutive patients with STEMI undergoing primary angioplasty (PA) or rescue from June 2007 to June 2010 at the University Hospital Center. Analyzing the incidence of mortality and cardiovascular events defined as death, recurrent ischemia, revascularization and stroke during hospitalization and follow-up. Analysis is performed using SPSS 15.

Results: 8.5% of patients had severely depressed LVEF. 82.1% were male, 42.9% had dyslipidemia, 46.4% had hypertension, 35.7% were diabetic. All baseline characteristics were similar in both groups. There were no significant differences in the type of revascularization treatment employed. Complete revascularization was in 70.4% of patients, similar use of drug-coated stents and antiplatelet agents. During hospitalization they had more cardiovascular events (29.8% vs 14.8, p = 0.048) and they were associated with worse stage of the Killip classification (state 4: 39.3% vs 4%, p = 0.001). In addition, this group of P have a five times higher total mortality (22.2% vs 4.3%, p = 0.001), both during hospitalization (17.5% vs 10, p = 0.002), and follow-up (10.7% vs 1.2%, p = 0.001). We could make follow up with a median of 556 days. A After three years, patients with severe ventricular dysfunction had a survival 40% vs 92% of patients with higher LVEF (long rank: 5.912, p = 0.015).

Conclusions: Patients with severe ventricular dysfunction have a worse prognosis, with more complications and mortality, regardless of the therapeutic strategy chosen.

V-263
DIAGNOSIS OF UNINTENTIONAL WEIGHT LOSS: COMPARISON OF A QUICK DIAGNOSIS UNIT AND CONVENTIONAL HOSPITALIZATION

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Objectives: We investigated the differences in the diagnosis of unintentional weight loss (UWL) between a Quick Diagnosis Unit (QDU) and conventional hospitalization (CH) in the Internal Medicine Department (IMD) of our institution.

Material and method: Analysis of a prospectively collected database of patients evaluated for UWL in QDU and CH from 1st January 2002 to 31st December 2011. One-hundred patients, 50 in each group (QDU and CH) were included. Only patients who concluded the study in one of these units were included. Epidemiological and clinical data, as well as diagnosis-related procedures were collected. Times to diagnosis (TTD) as well as delay in testing (DIT) were collected. Statistical analysis comparing both groups was performed using SAS 9.1. We used chi-square test for categorical variables and t-test for quantitative variables. We applied the Mann-Whitney test when samples did not accomplish normality.

Results: Mean age was 68.64 years (range: 18.5-84.5). Mean age in CH group was 10 years higher (95%CI: 3.63-15.97). CH patients were mainly referred from the emergency department (ED) (66%), while QDU patients were referred from ED (48%) and primary care practitioners (44%). Overall, for both QDU and CH, most common diagnoses were: solid neoplasm (22%), metabolic disorder and chronic liver disease (19%), psychiatric disorder (15%) and functional abnormalities (e.g., achalasia, irritable bowel syndrome) (13%), with no significant differences between the two groups. Overall, for both QDU and CH, mean time to diagnosis (TTD) was 22.92 days. A diagnosis was achieved in 98% of QDU patients and 100% of CH patients. Mean TTD was 10 days longer in the QDU group (95%CI: 2.2-17.8). General blood tests, chest X-ray and tumor markers were performed in 100%, 26% and 100% patients in the QDU group and in 100%, 98% and 70% patients in the CH group, respectively. No nuclear medicine imaging tests were ordered for QDU patients, while 10 were ordered for CH patients. Significantly fewer complementary exams were performed in QDU than in CH in order to achieve a diagnosis (1.08 in QDU and 2.70 in CH; $p < 0.001$). Regarding complementary exams, significant differences were found in the DIT for CT scans (23.3 days in QDU and 4.8 in CH, respectively; $p < 0.001$) and ultrasonography (6.5 days in QDU and 3.0 in CH, respectively; $p = 0.008$) between the two groups. No differences were found in the DIT for MRI, colonoscopy, gastroscopy, other endoscopic procedures, biopsy/needle-aspiration and bone marrow aspiration.

Discussion: Results from our study reveals that TTD was shorter in hospitalized patients, which is mainly explained by DIT, implying that, in some cases, patients had to be hospitalized because of a worsening clinical situation (data not shown here). While a diagnosis was achieved in almost 100% of patients in both QDU and CH, QDU patients required fewer explorations to achieve it.

Conclusions: QDUs are a useful alternative to CH for the study and diagnosis of UWL, with potential economic implications. However, there is the need to explore ways to shorten the time elapsed between ordering and performing complementary exams in QDU. Further studies comparing both services are warranted.

V-264
ROLE OF MICROARN IN ETHANOL-INDUCED MONOCYTE/ MACROPHAGE ACTIVATION

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Objectives: Excessive and chronic alcohol intake causes monocyte/macrophage activation, which relates to ethanol-induced damage to several organs and tissues. This project is aimed to delineate the microRNA expression profile in peripheral blood monocytes from alcoholic patients compared with control subjects. Thus we will be able to analyze their involvement in ethanol-induced pro-inflammatory response.

Material and method: Peripheral blood samples were obtained from 20 alcoholic patients with excessive daily ethanol intake (over 60-100 g/day) and from 20 age and sex-matched control subjects. Monocytes were sorted in order to obtain CD14+ and CD16+ cells. MicroRNA profile of CD14+ cells was identified by microarray analysis of 11 cases and 4 controls (mirCURY LNA microRNA array system).

Results: Approximately 9 microRNAs were significantly down-regulated in the alcoholic group when compared with control subjects (such as mir-489) and 7 microRNAs were significantly up-regulated (e.g., miR-26-a-2-3p).

Discussion: MicroRNAs are small noncoding oligonucleotides with an important role in posttranscriptional regulation of genetic expression. Several studies show that microRNAs play important roles in multiple biological processes, such as cell proliferation and immune response. Our data suggest that certain microRNAs are up-regulated in alcoholic patients, and this fact could be related to ethanol-induced alteration of immune response. These data must be confirmed by means of quantitative PCR.

Conclusions: Chronic alcohol intake induces a specific microRNA profile expression that could contribute to explain ethanol-induced alterations of the immune response. Acknowledgements: This work was supported by Grants GRS531/A/10 from Castilla-León Regional Government and PI10/01692 from Spanish Ministry of Science and Innovation and European Regional Development Fund "Una manera de hacer Europa".

V-265
XANTHOGRANULOMATOUS PYELONEPHRITIS. SIX CASES OF AN UNCOMMON ENTITY

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Objectives: Xanthogranulomatous pyelonephritis is a rare entity that could mimic renal mass. The manifestation usually consists in a constitutional syndrome, diagnostic evaluation done by Internal Medicine.

Material and method: We show six cases of xanthogranulomatous pyelonephritis diagnosed in our Hospital during the last 20 years (1992-2012). They are six women with ages between 62 and 77 years old that were admitted in our service for constitutional syndrome.

Results: All of patients admitted to study presented recurrent urinary tract infections for years and in three cases had expulsive

urinary calculi/lithiasis. Main symptoms were asthenia, anorexia, weight loss and urinary tract infection symptoms. Urine cultures were positives for Proteus (3), Escherichia Coli (2) and only one case of sterile bacteriuria. In all cases we found anemia (hemoglobin between 6 and 8 g/dl). PCR (reactive protein C) was elevated beyond 100 in all of the cases. Image studies were performed, ultrasound and TC, observing coral shaped calculi with pyelocalicial dilatation and parenchyma destruction with patchy hypo density areas. In five of the women there was unilateral affectation and only in one it was bilateral. The six patients required nephrectomy and in the histology it was observed substitution of the healthy parenchyma for granulomas with full of lipid macrophages. After surgery clinical and analytic features were normalized.

Discussion: Xanthogranulomatous pyelonephritis is a rare entity that can mimic renal tumor. Clinical and analytical features are insidious, with a typical constitutional syndrome and some radiological findings, among them, lithiasis and renal parenchyma destruction. Because of all this, it is a diagnosis that used to be reached by an Internal Medicine specialist.

V-266
DIAGNOSIS OF CANCER AND DEATH IN INTERNAL MEDICINE (2003-2012). NEED FOR KNOWLEDGE IN PALLIATIVE CARE

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Objectives: To analyze the characteristics of patients diagnosed with neoplastic disease and died during the study in Internal Medicine Service I of Salamanca during the years (2003-2012).

Material and method: We performed a retrospective observational study by reviewing the medical records of these patients checking the following information: age, sex, history with cancer, cancer diagnosis, presence of metastases at diagnosis, associated paraneoplastic syndrome and cause of death.

Results: 48 patients were diagnosed with cancer and died in income during the years of 2003-2012. Gender distribution was: males: 62.5%, females: 37.5%. The mean age of patients was 78. 35% of these patients had other history of cancer. The average number of days of hospitalization was 11 days with a range from 1 to 60 days. Diagnosed tumors showed the follow distribution (table). At the time of diagnosis 79.16% of patients had simple metastases, multiple metastases in 18.75%. 12.5% of patients showed at diagnosis paraneoplastic syndrome, mainly tumoral hypercalcemia and venous thromboembolism. The cause of death were multi organ failure caused by the tumor (79.1%), nosocomial infection (12.5%) and other causes (8%).

Discussion: Neoplasms were diagnosed in our analysis mostly in males. The most common tumors were in lung, stomach and pancreas. Most of them showed metastases at diagnosis and cause of death was multiple organ failure secondary to neoplastic disease.

Table 1 (V-266)

Lung cancer	21%
Stomach cancer	19%
Pancreatic cancer	13%
Bladder cancer	10%
Tumor of unknown origin	8%
Breast cancer	6%
Others	23%

Conclusions: In an internal medicine service are often the diagnosis of neoplastic disease and a considerable number of patients die during the study because of the tumor itself. We consider important knowledge in palliative care internist for the symptomatic approach of these end-stage cancer patients.

V-267
PROGNOSTIC SIGNIFICANCE OF THE INCIDENCE OF THE PHENOMENON OF "NO REFLOW" IN PRIMARY ANGIOPLASTY

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Objectives: Inappropriate reperfusion therapy has a worse prognosis the patients (P) with myocardial infarction with ST elevation (STEMI). The patients with "no reflow" has a worse prognosis. Objectives: the aim is to determine the prognostic value of patient (P) admitted with a STEMI according to their levels of reperfusion and we valued the incidence and impact of "no reflow". It discusses whether the incidence of this phenomenon worsens the prognosis of patients. As the number of cardiovascular complications and mortality, both during hospitalization and follow-up.

Material and method: Are realized a prospectively analysis of 410 P with STEMI undergoing primary angioplasty (PA) or rescue from June 2007 to June 2011 in a hospital with a catheterization alert for 24 hours. Are performed a prospective cohort study established two groups, one composed of patients with normal flow and the other formed by the phenomenon of "no reflow". Analyzing the incidence of cardiovascular complications defined as death, recurrent ischemia and stroke, both during admission and follow-up.

Results: The mean age of patients with "no reflow" was 69.2 ± 12.2 years. 36.4% are women, 72.7% were hypertensive, 36.4% had dyslipidemia, nephropathy in 9.1% and 9.1% ischemic history. Baseline characteristics were similar in both groups. The total number of complications was significantly higher in patients with this complication (27% vs 63.6%), both during hospitalization 17.6% vs 54.5% (p = 0.029), as follow-up (16, 3% vs 54.4%, p = 0.016), in turn, also showed a higher mortality (8.4% vs 45.5%, p = 0.0001).

Conclusions: The phenomenon of "no reflow" increases the number of cardiovascular complications. Therefore, it must implement all current strategies to reduce its incidence.

V-268
PROGNOSTIC IMPLICATIONS OF THE DELAY BY PRIMARY ANGIOPLASTY

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Objectives: Currently the best treatment of acute myocardial infarction (AMI) is the primary percutaneous coronary intervention (PCI) provided that certain conditions, among which the time gate ball (TPUBA) is less than 90 minutes the time interval between when the patient has contact with the emergency until it does, open the vessel responsible for AMI. Objectives: the aim is to

analyze the prognostic value of patients (P) admitted with AMI with ST elevation according to their balloon gate time (TPUBA).

Material and method: Are realized a prospectively analysis 312 patients P with STEMI undergoing primary angioplasty from June 2007 and June 2010. Are established two groups, one consisting of patients with TPUBA less than 64 minutes over 64 minutes. Analyzing the mortality rate during admission and follow-up.

Results: The present TPUBA than 64 minutes. The mean age was of 65.09 ± 13.92 years. 79.2% were male, 25.6% were current smokers, 23.1% were diabetic, 58.5% and 40.1% DL. All baseline characteristics were similar, except the presence of renal insufficiency (11.5% vs 3.5%, p = 0.031). There were no significant differences in the type of treatment, with complete revascularization in 60% of P, similar use of drug-coated stents and conventional. The P with longer had a total mortality up to five times the earliest strategies (10.4% vs 2.4%, p = 0.023), both during hospitalization (5.7% vs 0.4%, p = 0.05) as in monitoring (4.3% vs 2%, p = 0.05).

Conclusions: Patients with longer balloon gate time were higher mortality than patients with early strategies. So, we must join efforts to reduce them, as the "time attack".

V-269
RENAL FAILURE IS IMPORTANT IN THE PROGNOSIS OF PATIENTS WITH ACUTE CORONARY SYNDROME IN A PRIMARY ANGIOPLASTY PROGRAM

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Objectives: The nephropathy patients (P) perform poorly after an acute coronary syndrome. By presenting a greater number of comorbidities and more advanced coronary disease. Purpose: the aim is to investigate the prognostic value of nephropathy patients (CKD) admitted with a myocardial infarction with ST elevation (STEMI). Assessing whether they have higher mortality.

Material and method: Are realized a prospectively analysis of 412 P with STEMI undergoing primary angioplasty (PA) between June 2007 and July 2011 in our Hospital. Are performed a prospective cohort study established two subgroups formed by a P with CKD, compared with P without this condition. Analyzing the incidence of complications during hospitalization and follow-up defined by total mortality or the occurrence of any cardiovascular event (EvCv) as a composite of death, reinfarction, recurrent ischemia and need for new percutaneous coronary intervention.

Results: 8.8% were CKD, with a mean age of 68 ± 15 years. 18% were women, 57% hypertensive, 22.1% were active smokers. All baseline characteristics were similar to those of non nephropathy, except history of hypertension (54.7% vs 83.3%, p = 0.001) and peripheral arterial disease (4.3% vs 25%, p = 0.0001.) In their hospital course were not significant differences in the type of treatment used, except they were increased need for new PCI (5.3% vs 0.5%, p = 0.037). This P were a higher incidence of total complications (25.2% vs 58.8 5, p = 0.0001), during hospitalization (15.4% vs 52.9%, p = 0.0001) and during the follow-up and they were higher mortality (8.4% VS20, 6%, p = 0.02). CKD was an independent predictor of complications (OR: 3.3, p = 0.038, CI: 1,6-9, 35), set for possible confounding variables.

Conclusions: We found that the presence of CKD, is a predictor of adverse cardiovascular events. Therefore, it must make a close monitoring and optimal therapeutic control of these patients.

V-270
PET-CT FOR THE STUDY OF FUO AND ANOREXIA-CACHEXIA SYNDROME

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Objectives: To evaluate the utility of positron emission tomography-scan (PET-CT) in patients hospitalized in an internal medicine department for evaluation of fever of unknown origin (FUO) and persistent anorexia-cachexia syndrome after the usual diagnostic work-up has been inconclusive.

Material and method: A review of all PET-CT requested in an internal medicine department of a tertiary hospital over a period of two years was undertaken. We selected patients with fever or anorexia-cachexia syndrome in whom additional studies had been inconclusive: analytical (including autoimmunity, serology, tumor markers), imaging (computed tomography-CT-), microbiological (blood and body fluids cultures,) and cytological studies. We evaluated the results of the PET-CT according to the pre-test clinical suspicion and laboratory tests carried out previously. In the cases of study of FUO, we defined three subgroups: persistent fever after appropriate treatment of an previous infectious process, positive blood cultures without evidence of a primary focus, and fever suspected to be secondary to an haematologic malignant process. In the study of anorexia-cachexia syndrome we defined 3 subgroups: lesions in CT that might suggest a neoplastic process, symptoms suggestive of a paraneoplastic syndrome and no findings in CT studies, and clinical and analytical findings suggesting an haematological disease.

Results: We revised a total of 116 PET-CT: 41 patients met study criteria of FUO (16 patients) or anorexia-cachexia syndrome (25 patients). In the group of FUO, PET-CT was requested because of persistent fever after appropriate treatment of a previous infectious process in 9 cases. PET showed alternative foci in 5 cases, the rest showing findings already known or no abnormalities. In 3 patients, PET was performed after detection of positive blood cultures without clear focus. PET was useful in a patient with Staphylococcus aureus bacteremia. In 4 patients, PET-CT was ordered because of fever and a blood count suggestive of a haematological process. PET did not provide further diagnostic information to conventional studies. In the group with anorexia-cachexia syndrome, 12 patients presented with nonspecific lesions in previous CT (3 in lung, 5 in gastrointestinal tract, 1 in spleen, 1 in spinal cord, 1 in lymph nodes, and 1 in parotida). PET was useful to rule out cancer in 6 patients with nonspecific findings and in 1 case of high suspicion of recurrence on surgical site with negative CT scan. In the remaining 5 patients, PET did not provide further information. Seven patients presented with anorexia-cachexia and the suspicious of a paraneoplastic syndrome (2 with thrombotic events, 3 with inflammatory myopathy, 1 with hypercalcemia and 1 with refractory hypertension). PET only detected a cancer in a patient with a normal CT. We identified 6 patients with anorexia-cachexia syndrome and data suggestive of an haemathological neoplastic disease with normal CT (3 patients with pleuropericardial effusion, 1 with pleural effusion, 1 with bicytopenia, 1 with digestive symptoms). PET didn't provide information over previous CT.

Discussion: In patients with FUO, PET was useful in the subgroup of persistent fever and fever with bacteremia (total 6/12). However, in the subgroup of suspected haematologic malignancy without findings on CT, PET-CT provided no further information (0/4). In the group of patients with anorexia-cachexia syndrome, PET was useful to rule out malignancy in lesions detected by CT of doubtful pathological significance (7/12). In the group of patients with suspected paraneoplastic syndromes, cancer was detected only when other options were ruled-out previously (1/7). When there

were no diagnostic lesions on CT, PET did not provide added information.

Conclusions: The PET-CT proved to be useful in patients with persistent fever and lesions of uncertain pathological significance by CT. It seems that if there is a good pre-test diagnostic hypothesis, the diagnostic yield is higher. We conclude that is very important to have a previous good clinical assessment (history and physical examination) to obtain the best performance with the application of PET-CT.

V-271
DOES WOMEN ALSO HAVE A WORSE PROGNOSIS IN A PRIMARY ANGIOPLASTY PROGRAM?

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Objectives: Women present a worse evolution than men. These differences have been explained by the presence of atypical symptoms, comorbidities such as diabetes, hypertension and an older age. Objectives: our aim was to determine the prognostic value according to the sex of patients that have suffered a stroke (P) admitted with a Acute Myocardial Infarction with ST elevation (STEMI) studying if women present a biggest rate of mortality and complication, during the time in hospital as well as its following-up.

Material and method: We analyzed 312 patients 312 P with STEMI undergoing primary angioplasty (PA) or rescue from June 2007 to June 2010 in Albacete's hospital. We performed a prospective cohort study establishing two groups, one composed of men and the other formed by women. We evaluate the incidence of cardiovascular complications defined as death, recurrent ischemia and stroke, both during admission and the following-up.

Results: 17% were women. The average age of women was 70.2 ± 12.2 years. Baseline characteristics were similar to those of men, except for the frequency of hypertension 73.2% vs 53.6% (p = 0.007) and more prone to DM 30.4% vs 20.6% (p = 0.06). There were no significant differences in symptom-door times, gate ball, or the type of treatment done. However, women showed the highest number of total cardiovascular complications, 40% vs 23.8% (p = 0.016), during the check in and the following-up, being it during hospitalization of 27.3% vs 16% (p = 0.048), in the following-up done with an average of 529.50 days 12.84% vs 4.75%, (p = 0.01).

Conclusions: Women show a higher number of complications. So, they require an appropriate monitoring and optimal treatments that are performed to this collective.

V-273
TEMPORAL DISTRIBUTION OF EMERGENCIES FOR INTRACRANIAL HEMORRHAGE

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Objectives: To determine the incidence and temporal distribution of emergency department (ED) admittances for intracranial hemorrhage (ICH) episodes in our hospital.

Material and method: Based on the computerized medical records of all assisted processes in the ED of our hospital for any cause during four consecutive years (from January 2008 to December 2011), and in preserving patients anonymity, we collected information on the age, sex, first-listed diagnosis (which was subsequently coded according to ICD-9 MC, using an application software developed by our Clinical Documentation Dept.), date and entry time of all patients attended. All these variables were imported into a database and, using the computer program SPSS® 15.0, we conducted a descriptive study and a statistical data analysis, with the objectives set out, for patients who presented ICH (including subarachnoid, intacerebral, extradural, subdural and other unspecified intracranial hemorrhages [ICD-9 MC codes 430 to 432]) as first-listed diagnosis.

Results: The total number of patients visiting our ED from all causes during the study period was 401678. The patients mean age (± standard deviation) was 43.7 ± 21.4 years and 50.3% were women. Among the total assisted 205 patients (0.05%) were primarily because of ICH. Of these, 106 (51.7%) were men, with a mean age of 69.9 ± 17.4 years and 99 (48.3%) were women with a mean age of 73.1 ± 15.9 years. Nearly a 75% patients assisted by ICH were over 65 years. Season with higher incidence of ICH was winter (from December to February) with a 32.2% (December and January were the months of highest incidence [12.7% per month]) and spring was the lowest (from March to May) with 21% (May was the lowest [6.3%]). Thursdays and Mondays were the days of greater demand for ICH (17.1% and 16.4% respectively), and Fridays with the lowest (11.7%). Most patients with ICH (46.5%) were attended during the morning (8h to 15h), with a peak between 10h and 13h (26.9%), and there was a lower incidence (14.8%) during the night (22h to 8h). The time span of lower attendance happened between 3am and 6 am with 1.5% of income for ICH.

Conclusions: We find important changes in the ED rate of admissions for ICH between different months along the year, days of the week and hours of the day. It is found a higher incidence in winter and during the morning period, as well as a lower incidence on Fridays.

V-274
VALUATION OF RENAL INSUFFICIENCY THROUGH MDRD-4 IN EMERGENCY SERVICE: IMPORTANT PREVALENCE OF OCCULT RENAL INSUFFICIENCY

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Objectives: To know the prevalence and characteristics of patients with occult renal insufficiency (ORI) (glomerular filtration (GF) < 60 ml/min/1.73 m^2 with normal values of serum creatinine (SCr)).

Material and method: Observation, prospective study, determine SCr and MDRD-4 to predict GF in patients that we made a biochemistry.

Results: We studied 153 patients, 52.9% female, mean age 65.14 years old. We found renal insufficiency in 17.0% (26) patients using SCr, and 30.7% (47) using the MDRD-4. Therefore, the ORI is 13.7% (21). This group had a mean age of 78.48 years old (80.9% were > 70 years old), and 81.0% were female. In our sample, using the MDRD-4 in patients > 70 years old and women with SCr > 1 mg/dl had been only 1 (0.6%) case of ORI.

Discussion: We need a proper evaluation of renal function for management of urgent disease (need for diagnostic tests, doses of drugs...). To do this, we can't rely solely on SCr, but is useful to use equations to estimate the GF. Various guidelines recommend the use of the MDRD-4. We didn't find studies that evaluate ORI in emergency services, but our study had higher prevalence of ORI that others studies in ancient, HTA or DM patients.

Conclusions: We suggest to value renal function with equation to predict GF (MDRD-4) in patients > 70 years old and women with SCr > 1 mg/dl.

V-278
HYPONATREMIA AS THE PRESENTING MANIFESTATION OF EMPTY SELLA SYNDROME: TWO CASE REPORT

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Objectives: An empty sella refers to an enlarged sella turcica that is not entirely filled with pituitary tissue. Hyponatremia as the presenting manifestation of empty sella syndrome is rare. We describe here the cases of two elderly patients who were diagnosed as empty sella syndrome presented with hyponatremia. Case-1: A 77 years old woman was referred to the hospital because of hyponatremia. She had presented with nausea, vomiting, dizziness one week before admission. She has normovolemic hyponatremia (serum sodium: 118 mmol/l) with secondary adrenal insufficiency as shown by basal cortisol measurements and ACTH level. Other hypophysial hormone levels were within the normal reference ranges. Laboratory data were as follows: TSH: 0.21 mIU/ml, FT3: 1.22 pg/ml FT4: 0.39 ng/dl. Magnetic resonance imaging led to a diagnosis of empty sella. Case-2: A 81 years old woman patient came with complaints of fatigue and nausea. There was no history of postpartum hemorrhage responsible for postpartum hypopituitarism, and no history of drug therapy. There was no family history of endocrine or autoimmune disorders. She was admitted to hospital when hyponatremia (116 mEq/L) was found. Hyponatremia developed again 3 days after the withdrawal of hypertonic NaCl administration. Laboratory data were as follows: urea:16 mg/dl, creatinin:0.66 mg/dl, K: 3.63 mmol/L, cortisol:2.19 µg/dl, ACTH: 30.3 ng/ml, FT4: 0.65 ng/dl, TSH: 2.23 mIU/ml, FSH: 0.22 IU/L, GH: < 0.05 ng/ml, LH: 0.07 IU/ml, prolactin: 2.40 ng/ml. Magnetic resonance imaging (MRI) showed an equal intensity of both the sella turcica and the cerebrospinal fluid.

Results: After treatment with i.v. fluids and hydrocortisone, the patient's clinical condition and biochemical alterations improved, and normalized over time with oral cortisone acetate and L-thyroxine combination therapy.

Conclusions: Empty sella syndrome seems to be a frequently overlooked and rare cause of severe hyponatremia. Treatment with hydrocortisone is very effective. A high level of suspicion is the best way to recognize the underlying disorder.

V-279
GABRA1 AND GABRA6 POLYMORPHISMS AND ALCOHOLIC DEPENDENCE

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Objectives: The aim of our study was to analyze the association of rs2279020 GABRA1 polymorphism and rs1992647 GABRA6 polymorphism with alcohol dependence.

Material and method: We conducted a case-control study including 300 alcoholic patients and 160 abstinent controls, all of them male. DSM-IV criteria were applied to classify alcoholic patients as dependent or abusers. GABRA1 IVS11+15 A > G (rs2279020) polymorphism and GABRA6 rs1992647 polymorphism were analyzed by means of allelic discrimination by real-time PCR using TaqMan® SNP genotyping assays. The relationship between these polymorphisms and the presence of alcohol dependence was assessed by the Chi-square test. SPSS statistical program v. 19.1 was used.

Results: Mean age of our total sample was 50.31 (SD = 15.46) years. Among alcoholic patients mean age was 52.23 (SD = 12.48) and mean age of non-alcoholic patients was 46.61 (SD = 19.52). Among alcoholics, 62% met alcohol dependence criteria and 38% had alcohol abuse. Genotype frequencies of GABRA1 rs2279020 polymorphism were as follows: 36% AA, 48.8% AG, 15.2% GG for alcoholics; 34.8% AA, 46.8%, AG, 18.4% GG for controls (p = 0.678). We did not find any significant difference when comparing alcohol dependent patients (AA 36.4%, AG + GG: 63.6%) with alcohol abusers (AA: 35.4%, AG+GG: 64.6%) (p = 0.860). Genotype frequencies of GABRA6 rs1992647 polymorphism were as follows: 41.2% TT, 38.3% TC, 14% CC for alcoholics; 40.5% TT, 41.9%, TC, 17.6% CC for controls (p = 0.469). No statistically significant differences were found either when comparing alcohol dependent patients (TT 46.6%, TC + CC: 53.41%) with alcohol abusers (TT: 43.8%, TC + CC: 56.3%) (p = 0.632).

Discussion: In our sample we have not found that the rs2279020 polymorphism of GABRA1 gene and rs1992647 polymorphism of GABRA6 are associated with alcohol abuse or dependence. Nonetheless, these associations are biologically plausible given the involvement of the GABAergic system in neuronal circuits involved in addiction and several authors have previously reported that rs2279020 polymorphism could contribute to the development of dependence to alcohol or other drugs of abuse, such as methamphetamine.

Conclusions: We have not shown an association between rs2279020 polymorphism of GABRA1 and rs1992647 of GABRA6 with alcohol dependence. Further studies are necessary to confirm or discard the involvement of these genes in alcohol dependence.

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V-280
D-DIMER: A TEST CRITERIA USING

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Objectives: In this work, the authors propose to perform a retrospective study to evaluate the appropriateness of requests for laboratory quantification of D-dimers in Internal Medicine Service.

Material and method: We selected the medical files of patients admitted in that Service, for which it is required the quantification of D-dimer, over a period of two years (01/01/2010 - 31/12/2011). The authors then proceeded to check in clinical processes, the presence of the diagnosis of thromboembolism.

Results: After application of the method described above, it was found that of 3360 patients admitted in the period under evaluation, 128 (3.8%) were submitted to quantification of D-dimers. Of these, 91 tests (71.1%) were positive, whereas 18 (19.8%) were related to the presence of thromboembolism and 73 (80.2%) without any thromboembolic event associated.

Discussion: Looking at these results it appears that, although most of the tests prove positive, only one fifth of these results are

true positives. In contrast, the majority of positive results are false positives. Thus, it appears that in most cases, the assay of D-dimer, being positive, has led to a continued investigation unsuccessful for the detection of thromboembolic phenomena. These data suggest that the process of clinical research prior to requesting the D-dimer test should be more careful; should, as always, thoroughly explore the history and clinical observation of each patient, in its particular context.

V-282
CLINICAL USE OF BOSENTAN IN A MADRID HOSPITAL. UNIVERSITY HOSPITAL OF MOSTOLES, MADRID

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Objectives: Bosentan is a dual antagonist of endothelin receptors used in the treatment of pulmonary hypertension and digital ulcers in systemic sclerosis. This study details the epidemiological characteristics of patients treated with this drug in a hospital in Madrid, its evolution and possible secondary complications presented.

Material and method: It has been performed a retrospective study of cases of patients treated with bosentan in the University Hospital of Mostoles collected by the department of pharmacology. The following fields were covered by the data analysis: age, sex, primary and secondary diagnosis, starting and ending date of bosentan therapy, clinical response, levels of liver enzymes an Hb before and after treatment, associated adverse events, concomitant drugs and echocardiograms done. In cases of pulmonary hypertension pretreatment catheterization values and results of walking test performed before and after treatment were collected.

Results: 17 cases were collected for this study. In 13 cases (76.4%) bosentan was introduced to treat digital ulcers: 2 cases associated with MCTD, 1 associated with Buerger, 2 associated with SLE, 5 to CREST syndrome and 2 to diffuse systemic sclerosis. The mean duration of treatment in these cases was 22.7 months, with only the withdrawal of the drug in one patient (7.69%) for non-response. In the remaining patients the drug was effective with disappearance of ulcers in the first 6 months of treatment. In five patients (38.4%) withdrawal of treatment was tested after 23.4 months on average, with no recurrence in any of the cases after 12 months of clinical follow up. In four cases (23.5%) treatment was introduced to treat systemic sclerosis with both digital ulcers and pulmonary hypertension. The mean duration of treatment in these patients was 29.5 months. All of them showed positive clinical response in digital ulcers. At the start of treatment mean pulmonary arterial pressure was 40.3mmHg. Three patients had NYHA functional class II and one NYHA functional class III. In the treatment follow up one of the patients (25%) progressed to functional class III-IV keeping the rest the same capacity. Two of the patients showed an elevation of liver enzymes, both in the first 6 months of treatment. One patient (5.88%) presented an increase of less than 3 times the normal values that did not require treatment modification. The other patient (5.88%) showed an increase of liver enzymes between 3 to 5 times the normal values that was solved by lowering treatment. Four patients (23.52%) had a drop greater than 1 g/dL in Hb levels in the first 12 months of treatment. In 3 of them concomitant iron deficiency were found and anemia was corrected after iron replacement. In one of the patients the anemia couldn't be justified by other reasons, it worsened with increasing doses of bosentan and resolved after dose reduction. There was no clear relationship between side effects and concomitant drug administration. One of the patients (5.88%) withdrew the drug after two months of treatment for gastrointestinal intolerance (diarrhea) and one (5.88%) had transient headache attributed to drug that did not require dose modification.

Conclusions: The treatment of digital ulcers with bosentan in our environment has presented positive clinical results. The incidence of side effects associated with the drug corresponds to what it is described in the literature.

V-283
ANALYSIS OF OPIOID USE IN DISCHARGED PATIENTS IN A PALLIATIVE CARE UNIT

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Objectives: To know the characteristics of the patients who were discharged on treatment with strong opiodes in our Palliative Care Unit. To analyze the kind and proportion of opioids that we used, reviewing their specific combination. To identify what adjuvant treatments we used for pain management.

Material and method: This is an observational, retrospective study. We analyze the clinical histories of all the patients admitted of our Unit who were on treatment with any opioid, regardless of the indication, between 2007 and 2011. It has been investigated epidemiological features of the patients, opioids that were used, as well as the adjuvant therapies needed to control cancer pain. We have used the IBM SPSS statistic 18 for data analysis.

Results: We have analyzed 237 admissions concerning to 189 patients, 112 (59.2%) were men. Mean age was 65.5 years (SD 12.7). Average hospital stay of 13 days (SD 10.6). A 66.9% of patients had previous comorbidities; all of them had a malignant tumour and were on treatment with opioids because of cancer pain. Gastrointestinal neoplasm was the most frequent in the 27.1% of patients, followed by respiratory (25%), genitourinary (17.4%), head and neck (16.1%), and breast cancer (7.2%). Most patients were admitted because of respiratory symptoms (29.2%), followed by chronic pain (25%) and gastrointestinal events (15.3%). Morphine was used in 35.2% of the patients, fentanile in 24.6%, buprenorphine in 9.7% and oxicodone in 8.9%. Combination of opioids was used only as a rescue therapy for breakthrough pain, when it was necessary. Adjuvant therapy was used in 35.4% of patients, being pregabaline the most used (21.2%), followed by gabapentine (5.1%).

Discussion: Morphine has been for a long time the strong opioid of choice for treating chronic cancer pain.. In the last years, it has been an increase in the use of other opioids that offer some benefits, such as easier posology, different routes of administration or specific indications although its price is higher than morphine. Currently, it exists a marked increase in inappropriate use and prescription of opioids that has become in a cause of social and public health concern and has involved a rise in healthcare costs and changes in treatments. Nowadays there is still a limited evidence to support their indication, however there is evidence that justifies the selection of a specific opioid in certain situations and indications. In this study we confirmed an acceptable management of chronic cancer pain with morphine, others opioids were employed in specific cases, or as an alternative to morphine.

Conclusions: 1. Morphine was the opioid most commonly used, followed by fentanile.2. The proportion of opioids used in our unit follows the pattern recommended by the guidelines of Palliatives Care Societies and scientific literature. 3. We have not used combination of opioids, except as rescue therapy for breakthrough pain. 4. Pregabaline was the alternative most used as adjuvant therapy.

V-284
ANALYSIS OF OXYCODONE USE IN PATIENTS DISCHARGED IN A PALLIATIVE CARE UNIT

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Objectives: To identify the characteristics of the patients who were discharged on treatment with strong opioids in our palliative care unit. To analyze in which cases were prescribed oxycodone and which were the indications that justified its use. To know if oxycodone was used in combination with adyuvant therapies.

Material and method: This is an observational, retrospective study. We have reviewed the clinical histories of all the patients admitted in our Unit who were on treatment with oxycodone, regardless of the indication, between 2007 and 2011. It has been investigated epidemiological features of the patients, chronic diseases and comorbidities, as well as if adjuvant therapies were needed to control cancer pain. We have used the IBM SPSS statistic 18 for data analysis.

Results: We have analyzed 237 admissions concerning to 189 patients, 112 (59.2%) were men. Mean age 65.5 years (SD 12.7). Average hospital stay of 13 days (SD 10.6). A 66.9% of patients had previous comorbidities; all of them had a malignant tumour and were on treatment with opioids because of cancer pain. Gastrointestinal neoplasm was the most frequent in the 27.1% of patients, followed by respiratory (25%), genitourinary (17.4%), head and neck (16.1%), and breast cancer (7.2%). Most patients were admitted because of respiratory symptoms (29.2%), followed by chronic pain (25%) and gastrointestinal events (15.3%). Morphine was used in 35.2% of the patients, fentanile in 24.6%, buprenorphine in 9.7% and oxicodone in 8.9%. Combination of opioids was used only as a rescue therapy for breakthrough pain, when it was necessary. Adjuvant therapy was used in 35.4% of patients, being pregabaline the most used (21.2%), followed by gabapentine (5.1%). Of the 28 cases in which oxycodone was used, 11 were for neuropathic pain (39.3%), 9 were due to toxicity of another opioid (32.1%), 4 for analgesic failure of another opioid (14.3%) and 4 as a rescue analgesic. Adjuvant therapy was used in 35.4% of patients, being pregabalin the most used (21.2%) followed by gabapentin (5.1%). The patients who were on treatment with oxycodone associated adjuvant in 75.9% of cases, even was necessary to combine two adjuvant in 20.7% of patients, and in these cases pregabalin was again the drug most used (41.4%).

Discussion: Major opioids are widely used by patients admitted in Palliative Care Units, normally to treat chronic pain, achieving an acceptable control of this symptom in a high percentage of patients. There is not enough scientific evidence to suggest the supremacy of one over another when considering to morphine as the "gold standard" opioid. However there is evidence that justifies the selection of a specific opioid in certain situations and indications. Oxycodone is a strong opioid used in both cancer and non-cancer pain; in fact it is also indicated for the management of postsurgical and neuropathic pains. It has proved to be a safe and effective alternative in patients unresponsive to other strong opioids. Oxycodone seems to have some advantages in management of severe and neuropathic pain, although clinical trials comparing to morphine don't show plain superiority of oxycodone. In this study we cannot confirm better results with oxycodone because mostly patients were also on treatment with adjuvant therapies.

Conclusions: Morphine was the opioid most commonly used, followed by fentanile. We used oxycodone mainly in cases of neuropathic pain and toxicity of other opioids, being less used in cases of failure of initial analgesia. In most cases we prescribed oxycodone, it was used in combination with adjuvant therapies.

V-285
ACUTE INTERMITTENT PORPHYRIA. A RARE DISEASE, BUT STILL IN OUR THOUGHTS

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Objectives: Acute intermittent porphyria (AIP) is a hereditary autosomal dominant disease. It is caused by a defect in the enzyme uroporphobilinogen synthetase. Its defective function produces the accumulation of some toxic metabolic products (δ-aminolevulinic acid, uroporphyrin and copropophoryn). Although AIP is more prevalent in Northern European countries, its distribution is actually worldwide and affects every race. In southern Europe AIP is a minority disease, and the patients often have severe symptoms before the disease is diagnosed. To described clinical presentation and the porphyries role in the differential diagnosis of potentially severe and disabling pathologies.

Material and method: We made a retrospective study reviewing the diagnosis of patients studied in the internal medicine department of the university hospital Ramón y Cajal from 1979 till 2012. We found 3 patients, one female and two males, which had clinical symptoms and laboratory dates of compatible with AIP.

Results: The median age of diagnosis was 42 years. All cases had recurrent and intense episodes of abdominal pain associated to constipation, and weakness of legs. In one case, it was detected in electromyogram a sensitive polineuropathy. Both males also described episodes of retrosternal chest pain associated to vegetative symptoms. It was performed in both cases a coronary arteriography, detecting significant vessels lesions. The female underwent a laparotomy, previous to the diagnosis of AIP. One of the three cases developed various episodes of severe hyponatremia. If patients do were asymptomatic, the tests to measure porphyrins were between normal values of the local laboratory. The genetic test was just done in one case (2011).

Discussion: The median ages of our patients were above 35 years. This is an unfortunate fact of the AIP disease, which shows that the diagnosis it is delayed several years in most of cases. The symptoms could be abdominal and chest pain (sometimes mimicking ischemic heart disease). Blank laparotomies previous to the diagnosis of AIP are often made, due to acute attacks can imitate acute surgical abdomen. It is also interesting to value that AIP should be included in the differential diagnosis of the syndrome of inappropriate antidiuretic hormone secretion (SIADH). It is postulated that SIADH is mediated through a neurohormonal mechanism that cause a hypothalamic dysfunction. Physicians must be aware that porphyrins are only detected, in general, during acute attack, but not in the free- symptoms periods. AIP can also be the cause of a sensitive polyneuropathy. So the fact is that AIP should be included as a cause in the differential diagnosis of polyneuropathy, because its delay could potentially lead to progressives incapacitating symptoms, which have an effective and specific treatment.

Conclusions: AIP is a rare disease. Apart from the most known symptoms of recurrent abdominal pain and hypertension, there are also other manifestations of the disease as the sensitive polyneuropathy and SIADH. To wonder about this disease is important to get a faster diagnosis and earlier in time, enabling us to apply therapy that can avoid severe comorbidities, even death, in patients with AIP.

V-286
THE RELATIONSHIP BETWEEN OBESITY AND THYROID FUNCTION AND THYROID ULTRASONOGRAPHY SIZE INVESTIGATION

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Objectives: In this study investigated whether a relationship between obesity and thyroid function and thyroid ultrasonography size (TUSGs). In addition, if there was a relationship between TUSGs and thyroid function in obese patients, whether to be a new reference value was investigated.

Material and method: The study included there was not any disease other than obesity and ages 20 to 40 and 85 preobese or overweight (body mass index (BMI) > 25-29.9 kg/m^2), 74 obese patients (BMI > 30 kg/m^2), 50 healthy control men (BMI < 25 kg/m^2). TSH, freeT3, freeT4, weight, height, waist circumference (WC) and TUSGs of patients were measured. BMI data of all groups was calculated using the formula body weight/height^2 (kg/m^2). All data were evaluated using the SPSS 15.0 program.

Results: Data of preobese and obese patients (TSH, BMI, WC and TUSGs) were higher than healthy controls. There was no difference between freeT3 and freeT4 in all groups. In addition, there weren't relationship between BMI and TSH, TUSGs, but there was a positive correlation between WC and TSH, TUSGs ($r = 0.302$ $p < 0.003$ and $r = 0.2617$ $p = 0.042$).

Conclusions: As a result, there was a significant relationship between WC and TUSGs, TSH but this relationship was not reflected thyroid functions. In addition, this relationship between TSH levels and TUSGs in obese patients was not strong enough to require a new reference value.

V-290
USE AND UTILITY OF PET-CT IN AN INTERNAL MEDICINE DEPARTMENT

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Objectives: To evaluate the diagnostic utility of PET-CT (positron emission tomography-computed tomography) in patients hospitalized in an internal medicine department.

Material and method: A review of all PET-CT requested in an internal medicine department of a tertiary hospital over a period of two years was undertaken. Demographic variables, reason for requesting the PET, complementary previous tests: image tests, endoscopy, laboratory tests and cytological studies. We classified patients into different study groups. First, the oncologic group: extension study of solid organ cancer, study of haematological malignancy, cerebral space-occupying lesions. Second, the infectious diseases group: evaluation of a suspected organ or foreign body infection and patients with FUO. Third, patients with anorexia-cachexia syndrome with inconclusive additional studies. The last group included patients with suspicion of inflammatory disease, HIV patients with complex clinical process and those for neurological study. We considered usefulness of the PET as the capacity to identify lesions, confirm o discard the suspected diagnosis, taking into account the previous studies performed.

Results: We revised a total of 116 PET-CT. The first group included 43 (37%) patients: 21 for extension study of solid organ cancer, 10 cases for haematological malignancy, 12 cases to study brain lesions. In the group of study of solid organ cancer (20/21 had prior thoracoabdominal CT) 7/20 cases had findings in the PET-CT which broadened the CT staging. In the group of haematological malignancy (8/12 had prior thoracoabdominal CT), 5/8 cases PET-CT allowed new diagnostic extension. In the group of brain lesions, 10/12 cases confirmed the findings of the CT (5 cases with metastasis and 5 primary brain cancer), in 2/12 cases the PET-TC changed the diagnosis (1 intracranial haematoma and 1 primary lymphoma). We indentified 34 patients in the second group (29.3%): 18 cases with a known or suspected focus infection, 16 patients with FUO. Of the 18 cases: 6/18 to study aortic prosthetic infection, 7/18 to study arthritis or osteomyelitis, 3/18 to discard pacemaker infection and 2/18 in a miscellaneous group. Of the 16 patients of FUO, 9/16 because of persistent fever (5 cases useful), 3/16 to study bacteremia (1 case useful), 4/16 on haematological malignancy (no utility in any case). The third group included 25 patients (21.5%) with anorexia-cachexia syndrome: 12/25 to characterize a lesion, 6/25 to search a primary cancer and 7/25 to study a suspected paraneoplastic syndrome. The last group included 8 patients (6.8%) to study an inflammatory disease: 4 patients (3.4%) with HIV and 2 neurological PET (1.72%). In the inflammatory cases: 3/8 for suspected sarcoidosis, 2/8 for inflammatory aortitis, 3/8 with suspicion of giant cell arteritis. In 3 cases confirmed the suspected diagnosis.

Discussion: PET-CT has been useful for staging lesions highly suggestive of solid organ cancer described by CT (7/21). Also, its use has been proved to extend the staging of haematological malignancy (5/12). In the study of brain lesions, PET-CT was useful in 2/12 cases with an unclear diagnosis with the previous tests. In anorexia-cachexia syndrome group, the usefulness of PET is lower and highly dependent on the presence of lesions on CT. We confirmed usefulness to rule out the underlying disease in 7/12 cases to characterize a lesion described by CT. The rest didn't have significant findings. In the study of fever, PET-CT was useful when there was a known or suspected focus. In all patients (6/6) with suspected endovascular infection, in 5/7 of suspected arthritis or osteomyelitis and in all patients with suspected pacemaker infection (3/3). In cases of FUO, PET was more useful in cases of persistent fever (5/16).

Conclusions: PET-CT has proven useful in oncologic patients (for staging or to the diagnosis of solid cancers, haematological cancers and unclair brain lesions) and in patients with a high suspicion or known focus infection. The PET-CT proved to be useful in patients with persistent fever and in patients with lesions of uncertain pathological significance by CT. It seems that the efficiency is higher if there is a good pre-test diagnosis hypothesis.

V-291
IMPACT OF THE COMORBILITY IN THE SURVIVAL OF THE LUNG CANCER IN THE GENERAL HOSPITAL OF SEGOVIA

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Objectives: To know the general characteristics of bronchogenic carcinoma (BC) and to know the comorbilidad influences in the survival BC in our area of health.

Material and method: We include the patients with a diagnosis of BC from January, 2000 until August, 2010. The information is gathered from the reports of Pneumology, Internal Medicine and Oncology. To calculate the comorbility we use Charlson's limited scale (CH) obtaining a global median. We analyze the survival of two groups one over the median and other one below the median.

Results: N = 523, Males 470 (90%). Median 69. Histology: BC not small cells 425 (83%), epidermoid carcinoma 206 (39%),

adenocarcinoma 98 (19%) big cells 37 (7%) other 75 (14%) BC small cells 88 (17%). Clinical stadiums IA 20 (4%), IB 58 (11%) IIA 4 (1%), IIB 16 (3%), IIIA 53 (10%), IIIB 116 (22%) the IV 157 (30%). BC small cells, stadium limited 47 (9%), stadium extended 35 (7%). Not classified 17 (6%). Treatments: surgery 80 (16%), chemotherapy 238 (47%), radiotherapy 30 (6%), palliative 103 (20%), does not consist 47 (8%). The median of global survival of the series is 10 months. Charlson's index was possible to obtain it in 430 patients (84%). The median of the punctuation was of 2, Range from 0 to 9. Two groups were done, the patients with minor or equal index to 2 (CH1) and the patients with a Charlson of 3 or major (CH2). THE CH1: N = 312, median of age 67, males 275 (88%). The CH2 N = 118, median of age 71, males 113 (95%). It exists differences statistically significant between the groups neither in clinical stadiums ($p < 0.07$), nor in the applied treatment ($p < 0.1$). There are fewer women in the GH2 ($p < 0.02$) and they are older ($p < 0.01$). It exists statistically significant differences between the group CH1, with a median of survival of 11 months with regard to the CH2 with a median of survival of 7 months. ($p < 0.03$).

Conclusions: The epidemiological characteristics of our series are not very different to other published series. The average global survival of the series is 10 months. CH's average punctuation is of 2. The survival of the patients who have a minor or equal punctuation to 2 is better than those who have a punctuation of 3 or more, being this statistically significant difference ($p < 0.03$).

V-293
DEATH PROCESSES IN THE HOSPITAL: IS IT POSSIBLE TO DIE WITH DIGNITY?

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Objectives: Analyze the processes of death in the hospital managed by Nursing Case Management in terminally ill patients with limited support family members to care. Promote professional attention and care to patients (and their families) with death processes: dignity, confidence and quality technical-human. Death with dignity: no pain/suffering family support.

Material and method: Case Review Nurse Manager in derivatives 1st Semester 2011 with situation terminality: expected death < 7 days. Few members to support care at home. High degree of dependence on the patient. Conflicts users/professionals by anxiogenic situations.

Results: Total 13 cases. 6 women, 7 men. Ages 52 years-94 years. 5 neo lung, (4 males, 1 female) 3 neo colon (1 male, 2 female) 2 multimorbidity with brain damage (2 women), cardio-respiratory failure 3. (2 males, 1 female) Efforts were single room in 8 cases. The cases were referred to nursing case manager by physicians, 5 cases of hospital nursing, 4 cases, palliative care unit, 2 cases and active uptake at the request of the family, 2 cases. Families applicants. Patients helpless, fragile. Few family members: absent, distant or nonexistent. Wishes to die in the hospital vs Wishes to die at home. Addresses that do not guarantee care at the end of life. Uncontrolled pain: 5 (38%). Routine procedures: toilet, mobilization... Verbalizac. the patient at rest VAS ≥ 5. Facial expressions and body gestures Anxiety intense family unnecessary Suffering. Pain controlled: 8 (62%). Absence of expressions or gestures. Patient Comfort family. Standardization anticipatory grief -Duel in place necessary.

Discussion: Oxygen therapy with medium and high flows. (Ventimask/Reservoir) Prolonged treatment with curative intent despite the diagnosis: antibiotics, suerotherapies, diuretics, vasoactive drugs... Increased therapeutic efforts. Distress in the care of professionals. The nursing intervention developed by nurse management cases allowed to control the pain in 4 patients: assessment of patient contact + nursing and medical team. Pharmacological adjustment in each case. Family assessment. Family support. Patient comfort in his biographical closure in all cases seen. Therapeutic obstinacy vs Families who refuse aggressive treatement. Withholding Treatment vs Demand to do everything possible. Advance Vital Living Will Declaration.

Conclusions: The processes of death in the hospital are not homogeneous once they reach the stage of terminality closedepending on the sensitivity of the professional quality of care provided to dying and family. In all cases were sent personalized letters of condolence to the week of death, signed by some of the professionals who attended the cases. Dignified death processes are not always guaranteed or at home (for lack of caregivers to guarantee it) or in the hospital (because of poor information management professional or insensitivity). Referral to Case Management Nursing allowed the patient and family welfare in 12 of the 13 cases managed (92.3%). The need for more professional training in social skills of communication and society in general more open mind towards death processes: pedagogy of death.

V-295
JOURNALS AND TOPICS EXPOSED DURING THE JOURNAL CLUB DEVELOPED IN THE INTERNAL MEDICINE SERVICE AT TORRECÁRDENAS HOSPITAL

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Objectives: Analyze the issues that were selected in the journal clubs conducted in the Internal Medicine Department of the Hospital of Torrecárdenas for the past 4 years. Also, identify the materials and journals that were of greatest interest in our service.

Material and method: We performed a retrospective study with collection of journals and subjects selected both by senior doctors of Internal Medicine as residents (including rotating through the service) for exhibition in bibliographic sessions held weekly. The period chosen for our study was between to January 2008 to April 2012. After its analysis we report the most interesting topics and the further consulted journals.

Results: During the 4 years analyzed 370 items were exhibited. Of these, 170 (45.9%) belonged to the magazine NEJM (The New England Journal of Medicine), 33 (8.9%) to Clinical Medicine, 24 (6.5%) a Spanish Clinic Journal, 24 (6.5%) at The Lancet, 16 (4.3) at JAMA (Journal of the American Medical Association) and 103 (27.8%) to other diverse. Regarding specific areas: 99 (26.8%) were articles of pharmacotherapy, 265 (71.6%) cardiovascular diseases (4.9% cardiovascular risk factors, 3.5% anticoagulation, 4.1% ischemic heart disease, 3% intervention, 2.7% arrhythmias, heart failure 4.1%, 0.3% valvular diseases and 5.9% others), 57 (15.4%) of infectious subject (2.7% HIV, 3% respiratory infection/tuberculosis, 2.4% bacteremia/sepsis and 3.8% miscellaneous), 30 (8.1%) of neurology (2.4% dementia, 1.9% stroke, epilepsy 0.5%, 3% others), 22 (5.9%) pneumology (3.2% chronic obstructive pulmonary disease, lung neoplasm 1.4%, 1.4% others), 21 (5.7%) of hospital management and 12 (3.2%) of palliative care. Finally, 5 (1.4%) about autoimmune diseases, 12 (3.2%) of digestive and 6 (1.6%) of nephrourology. The articles published in 2010 were the most frequently reviewed (30.8%) in our service. The 80% of the reviewed articles had been published for less than 1 month.

Discussion: The publications raised in the literature of our service sessions were mostly on cardiovascular diseases (71.6%) and pharmacotherapy (26.8%) followed by the infectious theme (15.4%). The magazine further consulted by the medical staff during these sessions was NEJM (170 articles, 45.9%). The items on display are usually very current, since 80% of them had been published for less than 1 month. The year of publication most frequently consulted was 2010.

V-299
BLEEDING EVENTS OF ANTICOAGULANT THERAPY

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Material and method: This retrospective study took place in the Department of Internal Medicine at the Hospital of Sagunto. We retrospectively analysed all patients admitted in our department between January 2011 and December 2011 with a clinically bleeding event while receiving anticoagulation therapy. Anticoagulation therapy was defined as oral anticoagulation with vitamin K antagonist (acenocoumarol or warfarin) application of low molecular weight heparin or fractionated heparin. We categorized the events in three subgroups of seriousness, mild, moderate or serious bleeding. Mild bleeding was defined as that with no need of blood transfusion or thorough follow up. Moderate bleeding was defined as that leading to blood transfusion and medical observation. Serious bleeding was defined as that leading to surgical, angiographic intervention, irreversible sequelae or the death of the patient. We also categorized the events in three outcome subgroups, patient alive, death during hospital stay or death in the first twenty four hours of hospital after admission. All statistical analyses were performed using SPSS 19. p-values < 0.05 are considered statistically significant.

Results: During the period of the study there were 49 patients with bleeding complications of anticoagulant treatment. Thirty one events (63.3%) occurred in women and 18 (36.7%) occurred in men. Gender does not correlate with the outcome of the bleeding event. Seventy one per cent of patients were older than 75 years, twenty six per cent of patients were older than sixty five and younger than seventy five and just two per cent of patients were younger than sixty five years at the time of bleeding event. Age does not correlate with the seriousness of the bleeding complication (p = 0.4). Ninety one per cent of the patients were receiving oral anticoagulation with acenocoumarol, four per cent with warfarin and four per cent with low molecular weight heparin. Most events occurred in patients treated for atrial fibrillation (71.4%). Further indications where deep vein thrombosis (6.1%), pulmonary embolism (6.1%) and valvular cardiomyopathy (12.2%). About characteristics of bleeding complication eighty nine per cent of bleedings were spontaneous. Gastrointestinal bleeding was the major bleeding site (59.2%), other bleeding sites were cerebral (26.5%) and muscle skin (14.3%). Eighty five per cent of the bleeding events were moderate or serious bleedings events. Cerebral bleeding resulted in more mortality (61.6%). In 76.9 per cent of severe bleeding events we found the patients took other drugs beside the anticoagulant treatment. Eighty nine per cent of patients with a INR between 1.5 and 2.4 had a moderate or serious bleeding event. Thirty eight per cent of serious bleeding events occurred with INR values > 4.5. Ninety two per cent of cerebral bleedings occurred with INR values > 2.4.

Conclusions: In our study, most of the patients who presented bleeding complications of anticoagulant therapy were over 65 years old. Most of the them received acenocumarol as primary prevention to embolic events in arrhythmias. We have shown that sex is not correlated to the severity of the bleeding s events in patients with anticoagulant therapy. Elevated INR is a firmly established risk factor for haemorrhage. We found a highly significant association between INR greater than 4.5 in serious bleeding events. However most of the bleedings events were gastrointestinal and they did not show significant association with the INR values. Although, an increase of the cerebral bleeding episodes was observed when the INR values were greater than 2.4. As expected cerebral bleedings presented a higher mortality compared to other bleeding sites. There are several studies that have identified the use of multiple medications as a risk factor for bleeding complications and others show no influence on the complication rate. In our study we found a increase of seriousness of the bleeding events in those patients that were taking enhancing medicines of the anticoagulant effect.

V-300
ACUTE FAILURE AS A REASON FOR ADMISSION OF ELDERLY PATIENTS IN THE INTENSIVE CARE UNIT. A 10 YEAR STUDY

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Objectives: Respiratory insufficiency is the most common cause of ICU admission in elderly patients (> 80 years). The aim of this study is the assessment of postoperative respiratory complications in elderly patients requiring intensive care unit (ICU) treatment and their outcome.

Material and method: We studied patients older than 80 years of age with ARF needed treatment in the ICU for more than 24 hours.

Results: Fourty-three elderly patients were admitted in the ICU during 10 years (1/1/2003-1/6/2012). Twenty-three patients presented respiratory failure requiring ICU admission (15 men and 8 women, with an age of 83.4 ± 2.3 years old and an APACHE II score of 23.7 ± 5.6 on admission). Pre-existing comorbidities were: COPD 4 patients, XNA 7 patients, coronary disease 12 patients and stroke 10 patients. The causes of acute respiratory failure were: pneumonia in 7 patients (30.14%), pulmonary edema in 5 (21.73%), Chronic Obstructive Pulmonary Disease (COPD) exacerbation in 4 (17.3%) and atelectasis in 2 patients (8.6%). The average Length-of-Stay in the ICU was 8, 3 days. The mortality of elderly patients with respiratory complications requiring ICU admission was 52.17%, compared to a 41.9% mortality in elderly patients without ARF on ICU admission.

Conclusions: Pneumonia, Acute Lung Injury (ALI)/Acute Respiratory Distress Syndrome (ARDS) and pulmonary edema are the most common cause for ICU admission in elderly patients. The etiology of respiratory failure might connected to pre-existing comorbidities.

V-301
ACQUIRED HIPOGAMMAGLOBULINEMIA IN ADULT PATIENTS

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Objectives: The aim of this study was to determine the causes of acquired hypogammaglobulinemia and establish the prevalence of CVID in adult patients admitted in a tertiary care hospital.

Material and method: All patients older than 16-years-old with serum immunoglobulin G levels < 500 mg/dl were identified through

the computer file of the Biochemical Department from January, 1, 2010 to December, 31, 2012. The medical records were reviewed to identify the cause of the HGG and to establish if the CVID criteria were present. HGG not studied or ignored by the attending physician were also analyzed.

Results: In this period of time, 90 adult patients with HGG (30% men and 70% women) were identified. The average age at the time of the study was 64 years (rank 21-93). In 24 patients only a single determination of IgG was performed, even the value was clearly pathologic. The cause of the HGG was identified in 78 patients (86.6%). The most frequent causes were: Hematological diseases in 34 patients (38%) (12 multiple myeloma, 16 lymphomas of B cells, 5 chronic lymphocytic leukemia and 1 immunoglobulin light chain (AL) amyloidosis). Drugs in 27 patients (30%): (7 rituximab, 4 by other biological agents (tocilizumab, bortezomib), 3 by cyclofosfamide and 13 by other immunosupressive drugs). 9 patients fulfill CIVD criteria (10%). Nephrotic syndrome was diagnosed in 6 patients (7%). Solid tumors with widespread metastatic disease in 2 patients and 1 case of thymoma. Although, CIVD was the 3 most frequent cause of HGG, only 3/9 patients (33%) had been previously diagnosed and were receiving appropriate treatment. In patients with nephrotic syndrome and patients with hypogammaglobulinemia-induced by drugs recovered the normal levels of immunoglobulins after acute process.

Discussion: Although, the presence of hypogammaglobulinemia (HGG) usually is a relevant analytical data, that may be the clue of severe illness and recurrent infections, it is often overlooked by clinicians and there are few work published about acquired HGG. A large number of conditions are associated with HGG due to either decreased production or increased loss: drugs, malignancy and pre-malignant disorders, systemic illnesses causing bone marrow suppression, nephrotic syndrome, protein-losing enterophaties and others. On the other hand, common variable immunodeficiency (CVID) with an estimated prevalence of 1/20,000 inhabitants remains under diagnosed and with an important diagnostic delay, patients often have been evaluated by several specialist by the time they are diagnosed.

Conclusions: The hematological diseases were the most frequent cause of HGG in this series. New biological agents as rituximab and tocilizumab are frequent cause of hypogammaglobulinemia. Almost 2/3 of patients with common variable immunodeficiency had not been diagnosed by their clinicians.

V-302
A GROUP OF PATIENTS WITH MALT LYMPHOMA DIAGNOSED IN THE "UNIVERSITARIO MARQUÉS DE VALDECILLA" HOSPITAL

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Objectives: Review the diagnosed cases of Malt lymphoma (ML) in our hospital, describing the clinical characteristics and their location, as well as the predisposing factors.

Material and method: This is a descriptive study in 16 patients (62.5% women) diagnosed of MALT Lymphoma in the "Universitario Marqués de Valdecilla" Hospital (Santander, Spain). Data regarding the clinical history, age, gender, personal history, clinical manifestations and their location, as well as data coming from the physical exploration, was retrieved. Besides, laboratory data was registered, such as lactate dehydrogenase (LDH > 300 U/l), beta2-microglobuline, uric acid (mg/dl).Information coming from the immunology studies (presence of cryoagglutinins) and bone marrow study were also included. From the image tests (scanner), presence of mediastinal or abdominal lymphadenopathy were obtained. Immunohistochemical study and molecular studies (translocations, clonal rearrangement of immunoglobulin H1) were registered. The clinical stage at the diagnosis, as well as the treatment received, was gathered. The number of relapses was analyzed, the average survival along with the mortality.

Results: The average age at the diagnosis was of 67.63 with a variance of 14 years. The 6.3% of patients were smokers. The 37.5% displayed an infection due to Helicobacter Pylori and a 12.5% showed connective diseases. The more frequent location of MALT Lymphoma was gastric with 62.5%, from which a 50% showed an infection due to H. pylori, followed by the ones located in head and neck with an 18.8%. In regard to the clinical manifestations, only a 6.3% of the cases showed the classic triad (fever, loss of weight, and night sweating), being the most frequent manifestation the loss of weight, present in the 18.8% of the patients. As for the gastric MALT Lymphoma, the most common clinical expression was the gastrointestinal bleeding in the 50% of the cases, followed by the epigastric pain in the 20%. None of the patients showed splenomegaly and only 2 displayed hepatomegaly. The 12.5% presented supraclavicular and inguinal peripheral lymphadenopathy. Regarding the results from the laboratory data collected, the 43.8% of the patients displayed the following results: LDH > 300 U/l, Beta2-microglobuline 3.1 ± 2.7 and uric acid 6.6 ± 1.5 mg/dl. In 5 of the cases, the cryoagglutinins were analyzed and resulted positive in the 18.8%. In the chest and abdominal scanner, lymphadenopathies were observed in 8 of the patients, 25% mediastinal, 16% abdominal and 8.3% in both locations. An immunohistochemical study was carried out in 8 cases, from which a 37.5% was positive for the Bcl2. In 6 cases, the clonal rearrangement of immunoglobulin H1 was studied, turning out positive in the 83.3%. The 75% of the MALT Lymphoma were diagnosed in the earlier stages (I, I1 and I2), having the 62.5% an indolent growth. The 61.5% received chemotherapy treatment, 5 of them were gastric MALT Lymphoma and one located in head and neck. None received radiotherapy treatment. There were no relapses in the follow-up years (6 ± 5 years), although 2 cases did not react to the treatment, ending up in exitus.

Discussion: Patients with MALT Lymphoma in rare cases display systemic manifestations associated with lymphoma, such as the night sweating, fever and loss of weight. Being most frequent the clinical at local level, as it occurs in the gastric Malt Lymphoma with the gastrointestinal bleeding and the epigastric pain. Furthermore, it is shown a high prevalence of infection due to H. pylori in the gastric MALT lymphoma, as it is well-known.

Conclusions: The MALT Lymphoma is a low aggressivity and indolent growth type of lymphoma with a good response to treatment, but it should be suspected when having local symptoms even when missing systemic clinic.

V-303
DIAGNOSTIC YIELD AND ASSOCIATION OF SCALE EPWORTH SLEEPINESS IN OSAHS: CROSS-SECTION

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Objectives: To identify the diagnostic yield of the Epworth Sleepiness Scale (ESS) in a patient population of Segovia (Castilla and Leon, Spain) with clinical suspicion of apnea/obstructive sleep hypopnea (OSAHS) and establish the relationship between the result of the ESE and the Polygraph diagnosis of OSAHS.

Material and method: This is a cross sectional study which included all patients (188) Service of Neumology of the General

Hospital of Segovia, who had undergone a sleep study (Ambulatory Polygraph) in the period between January 2011 and March 2012 and who were referred to this service by a clinical suspicion of OSAHS. As sources of information for data collection were used Polygraphs Register of Service of Neumology and the charts of patients enrolled in the study. Statistical analysis was performed using SPSS V.18.0 and applied Logistic Regression test.

Results: We included in the study population 188 patients with a mean age of 56.16 years (95%CI 54.35 to 57.96). Of these, 83.5% (157) were male and 16.5% (31) women. The results obtained in the ESE were compared with the results of the Polygraph through a Contingency Table, where we find that for the study population, the ESS had a sensitivity of 82.7%, a specificity of 24.3%, a Positive Predictive Value of 85% and a Negative Predictive Value of 20.7%. Additionally, our data and through a logistic regression model, we found statistical significance to claim that the probability of having an abnormal polygraphic diagnosis (OSAHS) is greater in patients with pathological ESE (OR: 4,078, 95%CI: 2.87-6.33, $p < 0.05$).

Discussion: Several authors have documented in their research, such as sleepiness is a cardinal symptom of marked diagnostic value in the management of OSAHS. The ESE is built from this symptom and it becomes a very useful screening tool in primary care to detect patients with this condition. In recent years, has also documented its utility for optimizing the use of more expensive tests such as the Polygraph. The data obtained in our study, show a sensitivity to the ESE and a positive predictive value similar to those obtained in previous studies. However, considering the low negative predictive value is necessary to consider other tests and/or scales in patients with high clinical suspicion and a negative ESE. The positive predictive value observed in our series, it's consistent with the results obtained in the logistic regression model where we found an odds ratio with statistical significance to claim that in our series, the probability of having a diagnosis compatible with OSAHS polygraph is greater if is part of an abnormal ESE. These findings should be interpreted with caution, considering the sample size and source of patient recruitment (Specialty Care).

Conclusions: In our area, the Sensitivity and Positive Predictive Value obtained for the ESE, mean that this test is maintained as a scale with acceptable performance in screening patients with clinical suspicion of OSAHS. Its low cost, easy implementation and positive predictive value make it a useful tool in the field of primary care. Additionally, with our data, we found a statistically significant association between an abnormal ESE and polygraphic diagnosis of OSAHS, a finding that should be considered in clinical practice at the time of making decisions in referring patients to Care (Neumology).

V-307
DIAGNOSIS OF NEOPLASIA IN AN INTERNAL MEDICINE SERVICE OF A GENERAL HOSPITAL

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Objectives: To analyze the patients diagnosed of malignancy who were admitted for any reason in an Internal Medicine Service of a general hospital (Spain) in the last 5 years.

Material and method: We performed a retrospective study in patients admitted in an Internal Medicine Service for the last 5 years (January 2007-December 2011). During this period we recruited 4,468 patients, 211 of them were diagnosed at discharge from a neoplasm not previously known. We analyzed the basic epidemiological variables and the type of tumor that most often was described in these patients. Data were analyzed in SPSS database 17.

Results: Of a total of 4,468 patients, 211 cases were diagnosed some class of malignant neoplasm (4.7%) and 80 patients of them (37.9%) had metastasis at the diagnosis. Regarding gender, 135 (64%) were male and 76 (36%) were female, the mean age registered were 76 years old (± 16 years). There were 68.7% of cases older than 65 years old, 20.3% were between 65 and 50 years old and 11% were younger than 50 years of age. The most common malignancy diagnosis was the haematological one with 69 cases (32.7%): 47 (22.3%) lymphomas and 22 (10.4%) myelomas. Secondly was the lung cancer with 42 cases (19.9%). These were followed by: colon 17 (8.1%), bladder 15 (7.1%), kidney 9 (4.3%), breast 8 (3.8%), stomach 6 (2.8%), gynaecological cancers 6 (2.8%), liver 5 (2.4%), prostate 3 (1.4), pancreas 1 (0.5) and miscellaneous 19 (9%). Eleven cases (5.2%) were diagnosed of an occult malignancy and 36 patients (17.1%) had a second primary tumor.

Conclusions: In an Internal Medicine Service a total of 211 patients (4.7%) were diagnosed of malignant neoplasm during a 5 years period. Haematological malignancies (32.7%) were the most frequently (lymphomas and myeloma) followed closely by lung cancer (19.9%). There were predominantly males over 65 years old. We emphasize that the diagnosis was often made at an advanced stage and that the diagnosis of second tumors was relatively frequent.

V-308
INTERNAL MEDICINE/PSYCHIATRY DEPARTMENTS, AN EFFICIENT PARTNERSHIP

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Objectives: A Psychiatry Consultation (PC) is considered a tool that allows the clinicians requested collaboration between different medical specialties and Psychiatry. In our hospital Psychiatry department (PD) has been opened recently for the management of patients with psychiatric pathology subsidiary of hospital admission. The objective of this study was to analyze the impact this new DP in the management of inpatients admitted in the Internal Medicine Department (January 2011-May 2012).

Material and method: A retrospective and descriptive analysis of the PC made by clinicians specialists in Internal Medicine. We analyze demographic data, character of the consultation, reason for consultation and diagnostic.

Results: We analyze one hundred and eighty-five PC. Ninety-nine (50.85%) were women; the age range was between thirty-one and ninety years old. Most of the PC (68.64%) were performed with normal character and only sixteen (8.69%) required an urgent response. The most common reason for that was for adjustment the treatment and assessment of psychiatrist pathology known previously. Psychiatry pathology did not identify in only three patients.

Conclusions: PC allows us to analyze the work done by several specialties. The opening of the PD in our hospital has allowed us a more appropriate management of patients with previously known psychiatric disorders admitted to our hospital for organic disease. It results in a higher quality care; guard against discontinuation of psychotropic drugs treatment during hospitalization and avoid the possible psychiatry complications. All of them improve patient safety.

V-311
RHABDOMYOLISIS: ONLY ELEVATION OF MUSCLE ENZYMES?

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Objectives: Rhabdomyolisis is defined as an entity that results from acute and severe destruction of skeletal muscle tissue, causing the release of the intramiothitic substances that results in nonspecific myalgia and urinary disorders whose main complication is the deterioration of the renal function secondary the deposition of myoglobine in the renal tubules, It´s usually secondary to predisposing conditions such as toxic intake and injuries, sometimes it´s secondary to muscle primary and endocrine disorders or genetic diseases. Nowaday, elevation of COK still is the most sensitive serum marker and should therefore always be measured when we suspect the diagnosis.

Material and method: Retrospective descriptive study including all cases of rhabdomyolisis reported in the Internal Medicine Department of Fuenlabrada University Hospital between June 2004 and April 2012. In all cases, patients required hospitalization due to this entity. We describe epidemiological, clinical and laboratory outcomes.

Results: There were 20 cases of rhabdomyolisis over the 8 years reviewed, 2 of which were excluded for primary genetic myopathy (McArdle's disease). There was a clear predominance of women among the patients (55%), with a widely varying age range between 21 and 85 years, with an average of 52.4 years. Both variables (sex and age) appear to have a close relationship with the intense physical exercise; on the other hand, it presented as etiological agent in 55% of the cases. There are also other predisposing factors, such as trauma with secondary immobilization, group of elder people with cognitive impairment (22%), the group taking statin drugs (22%) and antipsychotics (11%) or febrile diseases (11%). Analytically, the CPK elevation was seen in 100% of the cases, with values between 590 and 66,057 with a mean of 16,779.06. There are other findings such as myoglobinuria (55%)l, mild hypokalemia (16.6%) and disorders of the urinary sediment (57%). The deterioration of renal function was evident in 27.7%, with a maximum value of creatinine of 2.04 mg/dl, showing all good evolution in response to prescribed treatment (except 1 case with a previous diagnosis of chronic kidney disease). 100% of the patients received supportive care with fluid therapy, to which was added alkalinization of the urine in 4 patients (22%).

Conclusions: Rhabdomyolisis is a benign entity that envolves favorably in most cases where there use ir appropriate. In the vast majority of the patients plenty of hydration and alkalinization of urine should be sufficient measures to prevent their passage through dialysis. Clinical manifestations in a proper epidemiological context, led by the traumatic pathology and intense physical activity, greatly facilitates the diagnosis, without forgetting that there are some exceptional cases where this condition may mask underlying primary pathology with variable prognosis.

V-314
DESCRIPTIVE STUDY OF PATIENTS ADMITTED WITH DIAGNOSIS OF ACUTE PANCREATITIS IN A REGIONAL HOSPITAL

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Objectives: Describing and relating the clinical and epidemiological features, analytical and etiology of patients admitted to our hospital with the diagnosis of acute pancreatitis.

Material and method: Retrospective study was performed of all patients hospitalized with a diagnosis of acute pancreatitis in the period of time from 1st January 2011 to 1st January 2012. Statistical analysis was performed using the SPSS program.

Results: We collected a total of 79 patients classified by etiology into 4 groups: gallstone (39.2%), alcoholic (22.8%), idiopathic (22.8%) and other causes (15.2%), that includes drug-induced pancreatitis, hypertriglyceridemia, posttraumatic, post-ERCP and others. About patients, 44 were male (55.7%) and 35 were female (44.3%). The average age was 60 years. The average value of amylase on admission was 1506.32 U/L. The hospital average stay was 8 days. Only 3 (3.8%) patients required ICU admission, presenting D (2.5%) and E levels (1.3%) according to severity level of acute pancreatitis Balthazar´s classification. Mortality was not found in none of our patients. In the stratification by etiology and gender, the alcoholic etiology was more frequent in males and the idiopathic etiology was more frequent in females. In the stratification by etiology and age, the alcoholic etiology was more frequent in fewer than 50 years old patients. In the other hand, the acute gallstone pancreatitis and acute idiopathic pancreatitis were more frequent in older 50 years old patients.

Discussion: Acute pancreatitis is an acute inflammatory process of the pancreas that causes abdominal pain and elevated blood levels of pancreatic enzymes. The incidence is higher in men (55.7%). The acute gallstone pancreatitis is the most common cause of acute pancreatitis in our environment. According to alcoholic etiology, this is more frequent in males; in the other way, the idiopathic etiology is more frequent in females; but there is no corresponds with the results obtained in the literature. Early cholecystectomy in acute gallstone pancreatitis could prevent repeat episodes for this cause.

Conclusions: Acute pancreatitis is a clinical entity potentially serious and even fatal at times. Although the exact mechanism that triggers of disease is unknown; we know the etiological agents that trigger the acute pancreatitis, emphasizing the gallstone etiology and chronic high intake of alcohol. The acute pancreatitis is currently responsible for 1% of hospital mortality, so is very important to make early diagnosis and treatment to reduce morbidity and mortality in the middle-long time.

V-315
DEVELOPMENT OF CONSUMPTION OF OPIOID DRUGS FOR FIVE YEARS IN A PALLIATIVE CARE UNIT

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Objectives: Identify and evaluate the evolution of consumption of opioid drugs in our palliative care unit of Avila Medical Complex.

Material and method: Patients admitted to the Palliative Care Unit of the Complex Care of Avila. Study period: 2007-2011. Was assessed using the Anatomical Therapeutic Chemical Classification/ Daily Definite Dose (ATC/DDD). We evaluated the opioid that were available in the Hospital Pharmacy.

Results: Opioid use has been classified by the active ingredient, the various presentations and number of stays per year. The results are presented in Table 1 and the total of the drugs according to the route of administration is presented in Table 2. The significant variations in the consumption of oral morphine and fentanyl transmucosal, are due to two specific cases with high demand for analgesia.

Table 1 (V-315). DDD/year for each active ingredient

	2007	2008	2009	2010	2011
Oral morphine	110.8	26.2	11.7	107.7	37.2
Parenteral morphine	1,155.7	1,113.7	1,156.0	1,005.3	1,187.0
Transdermal fentanyl	2,362.5	1,851.0	1,312.5	1,435.5	1,492.5
Sublingual/buccal fentanyl	0	0	0	74.7	60.0
Transmucosal fentanyl	162.7	17.7	14.0	17.0	135.0
Oral oxycodone	0	0	149.3	104.9	353.1
Parenteral oxycodone	0	0	0	0	256.3
Oral tramadol	22.2	18.0	45.0	112.0	68.3
Parenteral tramadol	25.3	23.3	10.0	68.3	54.0
All	3,839.1	3,049.9	2,698.5	2,925.5	3,643.4

Table 2 (V-315). DDD/100/stays for each route of administration

Route of administration	2007	2008	2009	2010	2011
Oral	5.4	2.1	9.6	16.0	24.1
Parenteral	47.9	54.0	54.5	53.0	78.7
Sublingual/buccal	0	0	0	3.7	3.2
Transmucosal	6.6	0.8	0.7	0.8	7.1
Transdermal	95.8	88.0	61,4	70.9	78.4
All	155.7	145.0	126.2	144.5	191.5

Conclusions: Transdermal fentanyl is the mainstay of analgesic therapy. Oxycodone has been used regularly since its introduction. There are significant variations in consumption of morphine and fentanyl transmucosal, which are related to two specific cases.

V-316
ANTICOAGULATION AND ANEMIA IN PATIENTS ADMITTED TO A SERVICE OF INTERNAL MEDICINE

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Objectives: To determine the epidemiology of anemia in patients admitted to our hospital and evaluate the possible relationship between lower hemoglobin levels and the presence of anticoagulant medication.

Material and method: Review of medical records of all patients admitted to internal medicine department in a period of six months, from November 1, 2011 to April 30, 2012, with hemoglobin levels below 10 g/dl. We excluded patients who died within 24 hours after admission.

Results: We reviewed 96 patients with hemoglobin below 10 mg/dl. We found 48 men and 48 women. The median age was 75.2 in men and 79.3 for women. 33.3% of patients smoked. 21.9% of patients recognized harmful use of alcohol. 64% were hypertensive. 29.2% were diabetic. 41.1% had heart disease, being Hypertensive Cardiomyopathy the most frequent. 19.8% had chronic renal failure. 7% had COPD. 21.9% of patients with atrial fibrillation, of which 85.7% were taking anticoagulants (all with Warfarin/Aldocumar). The INR of anticoagulated patients was above the therapeutic range in 31.6% of cases. Mean hemoglobin in anticoagulated patients was 7.6 g/dl and 7.66 g/dl in those with anticoagulation over range, while that of non-anticoagulated was 7.43 g/dl. On the other hand, 37.5% of patients were taking antiplatelet agents.

Conclusions: Patients admitted with anemia have a high average age, with large numbers of comorbidities. Among them is frequent the presence of atrial fibrillation, so a significant number of patients are receiving anticoagulant medication, being frequently overdosed. However, neither anticoagulation or overdosage of it was associated with lower hemoglobin levels.

V-317
ANALYSIS OF THE EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF PATIENTS WITH SPINAL METASTASES

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Objectives: To analyze the epidemiological and clinical characteristics of patients diagnosed with spinal metastases at our hospital, and to evaluate the therapeutic procedure performed on the basis of the recommendations of the current prognostic scales.

Material and method: A retrospective study of patients diagnosed with spinal metastases between 2006 and 2010 in our hospital (with a minimum of one year follow up after diagnosis). The study variables were: mean age, sex, Karnofsky performance status, number of vertebral metastases, number of extraspinal bone metastases, number of metastases in internal organs, metastases to major organs (brain, lung, liver, kidney), type of primary tumor, presence of neurological damage at the time of diagnosis, presence of pathologic fracture, type of treatment, survival from diagnosis, and in the case of patients who received surgery or radiotherapy, improvement or no pain and the index Karnofsky after them. Was applied to all patients Tokuhashi scale for spinal metastases and found adhesion and forecast consistency of the scale (certainty of the survival indicated by scale). We excluded those cases in which clinical data were incomplete for analysis or in which follow-up was lost.

Results: 279 cases were analyzed. The mean age was 65 years (SD ± 13), being 60% (n = 168) males. At the time of diagnosis,

55.6% of patients performed normal life without restriction (Karnofsky index 80-100), 33.7%, maintained some functionality but required assistance from a caregiver (Karnofsky index 50-70), and 10.7% needed to be bedridden (Karnofsky index 10-40). 75.5% of cases had two or more spinal metastases. 80.4% of patients had bone lesions extraspinals. The internal organ involvement was less common, being found in 58.7% of patients. 47.2% of patients had no metastases in major organs, presenting 17.4% in liver metastases, 15.9% in more than one major organ and 13.8% in lung, brain and kidney were less frequent. The most frequent primary tumors were lung 26.1% of cases (n = 73), breast 21.8% (n = 61) and prostate cancer to 10.7% (n = 30). 16% had spinal cord injury (30 cases incomplete and 17 complete), and only 10.2% of all patients with pathological fracture debuted, introducing the 82.8% bone pain as an initial symptom and the rest more than one symptom. As for treatment, 30 patients underwent surgery (10.7%), 9 with curative intent and 21 with palliative intent. In the remaining patients conservative treatment was undertaken, with the symptomatic treatment the most used drug (33.3%) followed by radiotherapy (17.9%), chemotherapy (16.3%) and radio-chemotherapy (11.7%). Among the patients treated up to 26.6% developed complications after surgery, with surgical wound infection the most frequent (25%). The improvement in pain and Karnofsky index of operated patients occurred in 76.2% and 71.4% of cases respectively and in patients who received radiation therapy occurred in 65.2% and 51.4% respectively. In 64.8% of cases, the criteria Tokuhashi scale for therapeutic decision making, with a 71.6% consistency prognosis. Exitus rate was 92.3%, with a median survival of 12.8 months, with less than 6 months in 53% of patients.

Conclusions: In our setting, the primary tumors with vertebral metastases more frequent, as described in the literature, are lung, breast and prostate. Patients undergoing surgery had a greater improvement in pain and functionality that patients treated with radiotherapy. This seems more related to the baseline of the patient with the type of treatment itself. Note that in 64.8% followed the recommendations of the Tokuhashi scale, low percentage for a scale with a prognostic high consistency as described in the literature.

V-318
ANALYSIS OF PATIENTS WITH PERCUTANEOUS ENDOSCOPIC GASTROSTOMY

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Objectives: Investigation of the characteristics of patients who received percutaneous endoscopic gastrostomy (PEG) feeding, indications of placement, and complications of the procedure.

Material and method: Design: A retrospective analysis was undertaken of patients who had a PEG tube replacement between January and February 2011. The data of the subjects were collected from the Hospital at Home Service follow-up registers. In the sanitary area of the C.H.U.V.I. (Complejo Hospitalario Universitario de Vigo (Galicia, Spain); University Hospital Complex of Vigo), the nurses in the Hospital at Home Service (HADO) are responsible for the replacement of PEG tubes once they have been inserted at hospital. The patients' clinical features were collected from the computer application that stores the clinical records of the patients in Galician hospitals (IANUS). The following parameters were analysed: age, gender, indication and timing of PEG tube insertion, and complications of the procedure. Setting: HADO Service (Hospital at Home) patients, sanitary area of CHUVI. Subjects: 40 patients who had PEG tube replacement during the time of study.

Results: The average age of the patients was 75,725 (range 34-100). Most of them were women, 25 patients (62, 5%). The commonest reason for PEG tube placement was dementia (65% of the cases). Other reasons were acute stroke (8 cases, 20%), neurodegenerative disease (2 cases, 5%), neoplasias of the upper gastrointestinal tract and the respiratory upper tract (4 cases, 10%). The complications of the procedure were long-term complications in almost all the cases. Only one of the patients in the study group had a short-term complication, namely, pneumoperitoneum related to PEG insertion. Aspiration pneumonia was the commonest long-term complication; 23 patients were admitted to hospital because of it (57% of the study group). The average number of admissions for each of the patients with aspiration pneumonia was 2.56 (range 1-10). There were other long term complications: PEG tube fell out (11 patients; 27, 5%), blocked PEG tube (7 patients; 17.5 %), PEG tube snapped (9 patients; 22, 5%), PEG site infection (3 patients; 7.5%).

Conclusions: PEG feeding is the preferred method of long-term enteral feeding. Dementia is the most common diagnosis in the patients who undergo a PEG tube placement. Most of the patients who need a PEG tube placement are ancient women. The procedure implies almost no short-term complications (1 out of 40 subjects in our study). Aspiration pneumonia is the commonest long term complication (57, 5% patients in the study group, who required an average of 2.56 hospital admissions since the PEG tube was placed).

V-321
STUDY OF DIARRHEA IN THE YEAR 2011 IN A REGIONAL HOSPITAL

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Objectives: Knowing the characteristics of diarrhea admitted to our hospital in Internal Medicine and Geriatrics. Estimating the frequency of the different variables considered in the patient's history, debut, diagnostic tests, diagnoses and type of treatment required. Knowing the most common mechanisms producing infectious diarrhea.

Material and method: We performed a data collection of all patients admitted to the Internal Medicine and Geriatrics in 2011 due to diarrhea, corresponding 52 cases (32% of diarrhea admitted to our hospital this year). It comes with a frequency analysis of various variables: entered service (Internal Medicine or Geriatrics), age, sex, duration (acute, persistent and chronic), characteristics (with or without pathological products, abdominal pain, vomiting, wasting syndrome, fever), immunosuppression, after taking antibiotics, diagnostic tests (stool, parasites, Clostridium difficile, blood) and imaging (CT, endoscopy), diagnosis (nonspecific diarrhea, bacterial, virus, parasites/fungi, organic, other causes), treatment required (nothing or fluid replacement, antibiotic therapy or surgery). Descriptive study of the different micro-organisms.

Results: The N is 52 study patients, corresponding to 31.9% of diarrhea admitted to the Hospital Virgen del Puerto in 2011. The frequency of the different variables is: Income in Internal Medicine 63.4% and Geriatrics 36.6%. Age: mean age of 66.8 years, 73% aged over 65 years and 27% lower. Gender: 61.5% were female and 38.5% men. Personal history: immunosuppression in 27% of cases (chronic kidney disease, kidney cancer and were taking steroids 33.3% and

66% prostate, uterus or digestive cancer and cohabiting in a residence) and taking antibiotics previously 21.1% of patients. Duration: 65% acute, persistent 19.2% and chronic 15.3%. Features: with pathological products 21.2%, fever 13.4%, 32.6% abdominal pain, vomiting 46% and 21.1% wasting syndrome. Diagnosis: stool cultures positive at 9.6%, 13.5% negative parasites and toxin of C. difficile present 9.6%. No positive blood culture. There were 15.6% CT and 21.5% colonoscopies. Regarding diagnosis, 54.9% were non-specific, 19.6% bacterial (40% with previous shot of antibiotics and Clostridium difficile more common by 45%, 36% followed by Salmonella 36%, E. coli 9% and C. jejuni 9%), 1.9% viral (rotavirus) and 23.5% for other reasons (intolerance to oral iron, treatment with duloxetine, inflammatory bowel disease or with no clear etiology). We found no cases with parasites, fungi or associated with neoplasia. Most were treated with fluid replacement 54.9% and 45% with antibiotics.

Discussion: Diarrhoea is usually a benign and self-limiting, in which most patients require only symptomatic treatment and sometimes with antibiotics. The most common infectious cause is bacterial. Colonic neoplasia is little cause of diarrhea there is to limit the use of tests such as colonoscopy.

Conclusions: Factors such as immunosuppression and the use of antibiotics are associated with increased likelihood of diarrhea, and especially that caused by Clostridium difficile. We found rare causes of diarrhea, as can be related to SSRIs (duloxetine) or intolerance to oral iron, demonstrating the importance of history in the medical record.

V-322
INSERTABLE LOOP RECORDER: EXPERIENCE IN OUR HOSPITAL

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Objectives: The aim of our study was evaluate the profile of the patient who is implanted an insertable loop recorder and determine the diagnostic performance of this device in our Hospital.

Material and method: Study Observational, descriptive, retrospective of insertable loop recorder performed at our institution from 1998 to March 2012.Clinical, epidemiological data were collected. All devices were programmed to trigger automatic or manual. It was studied at the time of explant or at one year.

Results: There were 74 patients, mean age 65.12 (11-85), 37 males (50%). The main indication for implantation was 83% recurrent syncope (62 cases), among other indications were palpitations 1 case (1.4%), monitoring of patients with atrial fibrillation, ablation 1 case (1.4%). In 43 cases, 58.1% showed no pathological findings. It provides evidence of a cause of syncope based on the following findings: 7 cases of complete AV block (9.5%)%), 3 cases 2:1 AV block (4.1%), 4 cases of sick sinus syndrome (5.4%), 2 cases slow atrial fibrillation (2.7%), 1 case of non-sustained ventricular tachycardia (1.4%), 2 cases of bradycardia syndrome-tachycardia (2.7%). In 5 cases (6.8%) was confirmed vasovagal syncope profile and 2 cases (2.7%) was confirmed neurological etiology. As a complication 2 devices were removed due to infection. According to the findings in insertable loop recorder was implanted 15 pacemaker and 1 DAI.

Conclusions: The profile of the patient who is holter loop insertable is a patient in the sixth decade of life presenting syncope of unknown etiology. The Holter loop insertable helped to show an etiology of syncope from vasovagal pathology confirmation to the indication of ICD implantation. Becoming a useful tool in selected cases of syncope in clinical practice.

V-323
MANAGEMENT OF DIPLOPIA CASES IN A REGIONAL HOSPITAL

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Objectives: The aim is to conduct a descriptive assessment of the Management of the diplopia cases assessed in a regional hospital.

Material and method: We conducted a retrospective descriptive study of a series of clinical cases assessed by diplopia, first in the Emergency Department and subsequently monitored in the Internal Medicine or the Ophthalmology Areas. This study took place between 1st of January 2009 and the 31st of December 2011. Several variables were analyzed, such as: sex, age, type of diplopia, description of affected cranial nerve type, first contact service, cranial CT scan carrying out, period of time between the debut and the first medical assistance at Ophthalmology or Internal Medicine and etiology of the diplopia.

Results: The sample consists on 56 patients, 26 women (46.4%) and 30 men (53.5%). The mean age is 58.5 years old (89-23). The type of diplopia stated on the clinical report was horizontal on the debut for the 38% of the cases, non-specified for the 16% and vertical for the 2%. The affected cranial nerve type was undefined for the 27% of the cases, showed variability in its determination by 16% of the patients and VI PC predominated (23%) followed by III PC (23%) and IV (12%) amongst the cases where it was defined. Emergency was the service which established the first contact with the clinical case in the majority of the situations (54%); the rest were first assessed in the Ophthalmology or the Internal Medicine Areas. A cranial CT scan was carried out in 59% of the cases. The mean period of time between the debut and the first medical assistance at Internal Medicine was 8 days (from 0 up to 52 days). The classification of etilogies is: microangiopathic (DM) 48% idiopathic 17%, tiroid orbitopathy 5%, neuromuscular pathology: miastenia gravis, area ORL pathology, orbitary pseudotumor, ophtalmoplegic migraine, tumoral (neurinoma-meningioma), sd. Tolosa Hunt.

Discussion: The diplopia of non-ophtalmic etiology is a severe clinic entity and has a very broad spectrum of presentation. We work in a regional hospital, where the medical specialty of Neurology or the sub- specialty of Neuro-ophthalmology do not exist. It is therefore established a protocol in the process of diagnosis, monitoring and treatment of diplopies involving several areas: Emergency, Internal Medicine and Ophthalmology. The importance of this study lies in the absence of clinical practice guidelines in the existing literature, partly due to the existence of multiple etiologies responsible for the development of diplopia.

Conclusions: Diabetic microangiopathy was the most common etiology of diplopies. The collaboration between the areas of Ophthalmology and Internal Medicine has sped up the global assessment of patients with diplopia. The possibility of carrying out an initial assessment followed by a detailed diagnosis of the neuromuscular dysfunction at the Ophthalmology Service appears to be an interesting area for future improvement.

V-325
RENAL HISTOPATHOLOGICAL FINDINGS IN PATIENTS WITH 2,8- DYHYDROXYADENINURIA

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Objectives: Adenine phosphoribosyltransferase (APRT) deficiency is an autosomal recessive disorder of purine metabolism that leads to excessive urinary excretion of the poorly soluble 2.8-dihydroxyadenine (DHA), causing kidney stones and chronic kidney disease (CKD). Lack of awareness among clinicians and pathologists may contribute to the low number of reported cases worldwide. The aim of this study was to characterize the renal histopathological findings in Icelandic patients with 2.8-dihydroxyadeninuria.

Material and method: The medical records of 32 Icelandic patients listed in the APRT Deficiency Registry of the Rare Kidney Stone Consortium were reviewed. Patients who had undergone a native kidney biopsy procedure or nephrectomy were identified. All renal biopsies and nephrectomy specimens were reviewed by an experienced renal pathologist.

Results: Three of the 32 patients had undergone a kidney biopsy and one had undergone nephrectomy. Patient 1 was a 55 year old woman with severe acute kidney injury superimposed upon mild CKD but no past history of stone disease. Patient 2 was a 42 year old woman with past history of recurrent kidney stones presumed to be composed of uric acid and stage 4 CKD. Patient 3 was a 42 year old man with acute kidney injury superimposed on advanced CKD and history of recurrent kidney stones since childhood. Patient 4 presented at the age of 14 months with oliguric acute kidney injury due to bilateral stone impaction, requiring unilateral nephrectomy. Histologic examination revealed extensive DHA crystal deposits and variable degree of renal scarring, chronic interstitial inflammation and glomerulosclerosis in all 4 cases. Polarized light greatly facilitated the detection of renal crystals. Distribution of the DHA crystals in the kidney are summarized in the Table.

Discussion: Renal histopathological findings in patients with APRT deficiency include extensive DHA crystal deposits which appear to cause significant tubulointerstitial scarring and inflammation. DHA crystals appear to be primarily located in the renal cortex, most commonly within tubular lumens.

Conclusions: APRT deficiency causes crystalline nephropathy with characteristic histopathological features. Care must be taken not to confuse 2.8-dihydroxyadeninuria with other forms of crystalline nephropathies.

V-327
PATIENTS UNDER TREATMENT WITH VITAMIN K ANTAGONIST AND NONVALVULAR ATRIAL FIBRILLATION: ANALYSIS OF ADVERSE EVENTS AND HOSPITALIZATION DUE TO THIS ISSUE

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Objectives: Although vitamin K antagonist reduce the stroke risk in atrial fibrillation by as much as 60%, and guidelines recommend them for reduction of stroke risk in AF patients at moderate to high risk of stroke, they are contraindicated in many patients and often underutilized even in eligible patients for whom they are indicated. This antagonist has numerous food and drug interactions, a relatively narrow therapeutic window, increased risk of bleeding, and the requirement for frequent monitoring and dose adjustments. For all these reasons we wanted to know the characteristics of adverse events hospitalizations due to these problems.

Material and method: We analyzed the episodes of adverse events in a one year period, that required hospitalization due to vitamin K antagonist treatment, in patients with nonvavular atrial fibrillation, in a third level hospital, covering a population of 500,000 people, in Spain. Descriptive study has been made from medical reports out of the hospital data base.

Results: A total of 46 subjects were included, 20 females (43.5%) and 26 males (56.5%) with a mean age of 76 ± 8.9. Most of the patients were hospitalized in Internal Medicine (73.9%). Three patients (6.5%) died during hospitalization and eighteen (39.1%) required blood transfusion. CHADS-VASC of 3 or more points were observed in 76% of patients, and 5 or more in 34.7%. HASBLED index PRE-episode, 3 points or more in 17.4% of patients and 5 or more in 2.2%. HASBLED POST-episode, 3 or more in 65.2%, and 5 or more in 6.5%. Previous hospitalization for this issue, sixteen (34.8%). A total of thirty five (76%) continued with vitamin K antagonist after the episode. Most frequent adverse events were, haematoma of the rectus sheath and soft tissues (21.7%), hematuria (18%), upper gastrointestinal bleeds (17%), high INR and anemia (17%), low gastrointestinal bleeds (11%) and haemoptysis (6.5%).

Conclusions: We have observed a clearly increased on the HASBLED index after the adverse episode, and some patients had a previous hospitalization for this matter. This supposes an increase one year bleed, justifying more regular reviews, that in some cases does not really happen. We should consider in these cases a change on our therapeutic approach considering the new anticoagulant agents.

Table 1 (V-325)

Patients	Location of crystals			
	Tubular lumen	Inside tubular cells	Interstitium	Cortex/medulla
1	3+	3+	1+	3+/1+
2	2+	2+	1+	3+/1+
3	3+	3+	1+	No medulla in biopsy
4	1+	1+	1+/0	Mostly in cortex

V-328
ISCHEMIC COLITIS: A PREVALENT BENIGN ILLNESS IN OLD PEOPLE

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Objectives: Ischemic colitis (IC) is the most frequent form of mesenteric ischemia, affecting mostly elderly with cardiovascular risk factors (CVRF). The aim of this study is to review the clinical presentation of IC in a tertiary hospital.

Material and method: Retrospective study of IC presented during 2011 at Complejo Asistencial Universitario de León. Diagnostic criteria for IC were: 1. High clinical suspicion: patient ≥ 60 years old + ≥ 1CVRF. 2. Diagnostic colonoscopy (either by macro or microscopic findings). 3. Diagnostic laparoscopy or laparotomy. 4. Mild clinical suspicion + suggestive Ultrasound Scan (US) or abdominal CT. Exclusion criteria: Colonic ischemia due not to arteriosclerosis, but mechanical process.

Results: We analyzed 66 patients with mean age of 76 years (range 49-94) and similar gender distribution (55% females). The main risk factors showed were: previous ischemia event (34%) [coronary (15%), ictus (17%), intermittent claudication (2%), IC (8%)]; smoking (26%), alcoholism (12%), obesity (9%), hypertension (74%), diabetes mellitus (32%), dyslipemia (35%), NSAIDs (14%), COPD (6%), previous abdominal (26%) or vascular(8%) surgery. The main symptoms at diagnosis were: abdominal pain (83%), vomiting (9%), diarrhea (51%), rectorrhagia (74%), fever (17%) and hemodinamic instability (22%). Colonoscopy was performed in the 83% of the cases, with a compatible histology in the 80%. Antibiotics were used in the 91%: ciprofloxacin + metronidazole in the 63%. IC was reason for admission in the 88% of the cases, and in the remaining 12% it was a diagnosis in patients hospitalized for other causes. About the outcome, surgery was necessary in 4 patients (6%), complications appeared in the 23%, and the 9% of the patients died during admission.

Conclusions: IC is present in old subjects with CVRF and evidence of arteriosclerosis (previous ischemic event). The classic clinical presentation consists of abdominal pain and rectorrhagia. Although outcome is generally good, some patients experienced severe forms and poor prognosis.

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A RARE CASE OF HEPATITIS C NEGATIVE MIXED TYPE (TYPE 2) CRYOGLOBULINEMIA

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Objectives: Cryoglobulinemia is defined as one or more immunoglobulins in the serum which precipitate at temperatures below 37C and dissolve again on rewarming. Criteria for the classification of cryoglobulinemia patients are based on serologic, pathologic and clinical findings. We present a patient with hepatitis C negative mixed type cryoglobulinemia.

Results: Case report: a 58-year old Caucasian man was admitted to the Intensive Care because of an arterial occlusion and was treated with urokinase and stenting. During admission he was successfully treated with clarythromycin because of pneumonia. One month after discharge the patient returned with hypoxemia with massive hemoptysis. He was readmitted to the Intensive Care for intubation and mechanical ventilation. Physical examination showed erythematous lesions on his lower extremities, biopsy showed a leukocytoclastic vasculitis. We found an increased level of creatinine with dysmorphic erythrocytes in the urinanalysis, suggesting glomerulonephritis. Decreased levels of C3, C4 and an elevated C1q-bindingtest suggested activation of the immune system. Over time the patient developed progressive renal failure, all tests for auto-immune diseases (ANA, ENA, ANCA, anti-CCP) were negative except for a positive IgM rheumatoid factor. Also viral tests including hepatitis C RNA were negative. Because of a possible seronegative Wegener granulomatosis he started with prednisone, cyclophosphamide and plasmapheresis, with poor result. Additionally a monoclonal IgM-kappa paraprotein and cryoglobulins were present in the serum. Bone marrow biopsy (performed after initial treatment) showed 1% plasma cells and 15% B-lymphocytes with an increased kappa/lambda ratio of 47, the ratio of kappa/lambda free light chains in the serum was also increased (ratio 23). We concluded that the patient had a hepatitis C virus negative mixed cryoglobulinemia (type 2) with diffuse alveolar haemorrhage, leukocytoclastic vasculitis of the skin and glomerulonephritis. He was treated with prednisone 1 mg/kg daily and rituximab 375 mg/m^2 weekly for 4 weeks. Currently he is doing well and is treated with prednisone (tapering scheme) and rituximab every three months (for 2 years according to non Hodgkin lymphoma protocols). Kappa/lambda ratios, IgM, complement levels etc. are normalised and cryoglobulins can not be detected anymore.

Conclusions: Cryoglobulinemia mixed type 2 is an immune complex-mediated systemic vasculitis. In a majority of cases it is induced by B-cell activation by the hepatitis C virus, therefore HCV-negative cryoglobulinemia is very rare. It is unknown what the causative factors are involving HCV-negative cryoglobulinemia mixed type 2, but this diagnosis should always be considered in HCV-negative patients.

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SMALL BOWEL ANGIOEDEMA DUE TO ACQUIRED C1 INHIBITOR DEFICIENCY

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Objectives: Acquired angioedema (AAE) is a rare disorder due to an acquired deficiency of C1 inhibitor. It is characterized by nonpitting, nonpruritic subcutaneous or submucosal edema of the skin, respiratory of gastrointestinal tract. When localized in the gastrointestinal tract it can cause severe abdominal pain, mimicking an acute surgical abdomen, or chronic recurrent pain of moderate intensity. The disorder is associated with B cell lymphoproliferative disorders and autoimmune diseases.

Results: We report a case of a 48-year old man presenting with recurrent episodes of hypotension and abdominal pain. Computed tomography of the abdomen showed edema of the small bowel. The first determinations of C1 inhibitor level and activity, determined in a symptom free period, were normal. Repetition of the test in the acute phase however, showed low C1 inhibitor level. Further diagnostic work-up revealed an acquired C1 inhibitor deficiency possibly due to a monoclonal gammapathy. This man was treated with tranexamic acid as prophylaxis for his frequent attacks and till now on he is free of symptoms.

Conclusions: The diagnosis of acquired C1 inhibitor deficiency is based on the medical history and on plasma C4, C1q and C1 inhibitor level and activity. In case of high suspicion and a normal C1 inhibitor activity, it is recommended to repeat this test during an angioedema attack. Early diagnosis is important for treatment of severe, potentially life-threatening attacks and to start prophylactic treatment in patients with frequent or severe angioedema attacks.