

XI Reunión de Insuficiencia Cardíaca

SEMI

Murcia

**¿Qué dicen las nuevas guías sobre
Tratamiento de la IC crónica?**

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ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2008 ☆,☆☆

The Task Force for the Diagnosis and Treatment of Acute and Chronic Heart Failure 2008 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association of the ESC (HFA) and endorsed by the European Society of Intensive Care Medicine (ESICM)

Authors/Task Force Members: Kenneth Dickstein (Chairperson) (Norway)*, Alain Cohen-Solal (France), Gerasimos Filippatos (Greece), John J.V. McMurray (UK), Piotr Ponikowski (Poland), Philip Alexander Poole-Wilson (UK), Anna Strömberg (Sweden), Dirk J. van Veldhuisen (The Netherlands), Dan Atar (Norway), Arno W. Hoes (The Netherlands), Andre Keren (Israel), Alexandre Mebazaa (France), Markku Nieminen (Finland), Silvia Giuliana Priori (Italy), Karl Swedberg (Sweden)

Varón de 78 años, exfumador, **EPOC III**, DM, hipercoleste. IAM ant. **enfermedad coronaria** de tres vasos con lesiones no susceptibles de revasculari. actual. ICC **clase III-IV**. **PA 88/55**, RS a 75 lpm, **BRI**, **Cre 2.5**, MDRD 24, K 4.1, Hb 11.2, BNP 1200. Eco: dilata cavi izdas, **FE 25%**,. En tto con digoxina, insu, seguril, AAS, simva y tiotropio.

1. ¿Existe **contraindicación para IECA y BB?**
2. ¿Esta indicada **resincronización y/o DAI ?**
3. ¿Debe **anticoagularse ?**
4. ¿ Si FA **Estaría indicada la reversión a ritmo sinusal ?**
5. **Consideraciones sobre digoxina, DM, estatinas, anemia y medidas generales**

¿Existe contraindicación para IECA y BB?

**78 años, ICC sistólica clase III-IV. PA 88/55,
EPOC III, RS a 75 lpm, Cre 2.5, K 4.1**

NO

- * **La hipotensión asintomática no es contraindicación (las nuevas guías ni siquiera establecen una cifra límite de PA)**
- * **La EPOC no es contraindicación de BB. Nebivolol**
- * **Se pueden introducir IECA con creati. de hasta 2.5**

Deben introducirse de manera progresiva y secuencial

¿Cuándo ARA II o AA?

- * **Cuando persistan los síntomas**
 - **Clase III-IV: AA**
 - **Clase II-III: ARA II**
- * **Contraindicaciones similares a IECA**
- * **Nunca IECA+ARA II+ AA**

Efficacy and tolerability of adding an angiotensin receptor blocker in patients with heart failure already receiving an angiotensin-converting inhibitor plus aldosterone antagonist, with or without a beta blocker.

Findings from the Candesartan in Heart failure: Assessment of Reduction in Mortality and morbidity (CHARM)-Added trial

R.A.P. Weir^{a,b}, John J.V. McMurray^{a,b,*}, Margareta Puu^c, Scott D. Solomon^d, Bertil Olofsson^c, Christopher B. Granger^e, Salim Yusuf^f, Eric L. Michelson^g, Karl Swedberg^h, Marc A. Pfeffer^d
for the CHARM Investigators

European Journal of Heart Failure 10 (2008) 157–163

An ARB may provide added benefit, at acceptable risk, in HF patients already taking spironolactone as well as an ACE-I

¿Esta indicada resincronización y/o DAI ?

FE 25%, clase III-IV, RS a 75 lpm, BRI

1. **Optimizar tto** con **IECA, BB y digoxina**

2. **Resincronización:**

* Si continúa sintomático en clase III o IV

* **QRS >120**

* **CRT-D**

Las guías no exigen RS ni BRI

3. **DAI:** Si clase II o III

Comparison of Benefits and Mortality in Cardiac Resynchronization Therapy in Patients With Atrial Fibrillation Versus Patients in Sinus Rhythm (Results of the Spanish Atrial Fibrillation and Resynchronization [SPARE] Study)

Jose Maria Tolosana, MD^a, Antonio Hernandez Madrid, MD, PhD^b, Josep Brugada, MD, PhD^a, Marta Sitges, MD, PhD^a, Ignacio Garcia Bolao, MD, PhD^c, Ignacio Fernandez Lozano, MD, PhD^d, Jose Martinez Ferrer, MD^e, Aurelio Quesada, MD, PhD^f, Alfonso Macias, MD^c, Walter Marin, MD^b, Juan Manuel Escudier, MD^d, Antonio Alonso Gomez, MD, PhD^e, Mónica Gimenez Alcala, MD^f, David Tamborero, BEng^a, Antonio Berruezo, MD^a, and Lluís Mont, MD, PhD^{a,*}, on behalf of the SPARE Investigators

(Am JCardiol 2008;102:444)

In conclusion, patients with AF treated with CRT who survived at the 12-month follow-up had the same functional improvement and remodeling as those in SR. However, AF was an independent risk factor for mortality from heart failure after CRT implantation.

Randomized Trial of Cardiac Resynchronization in

M

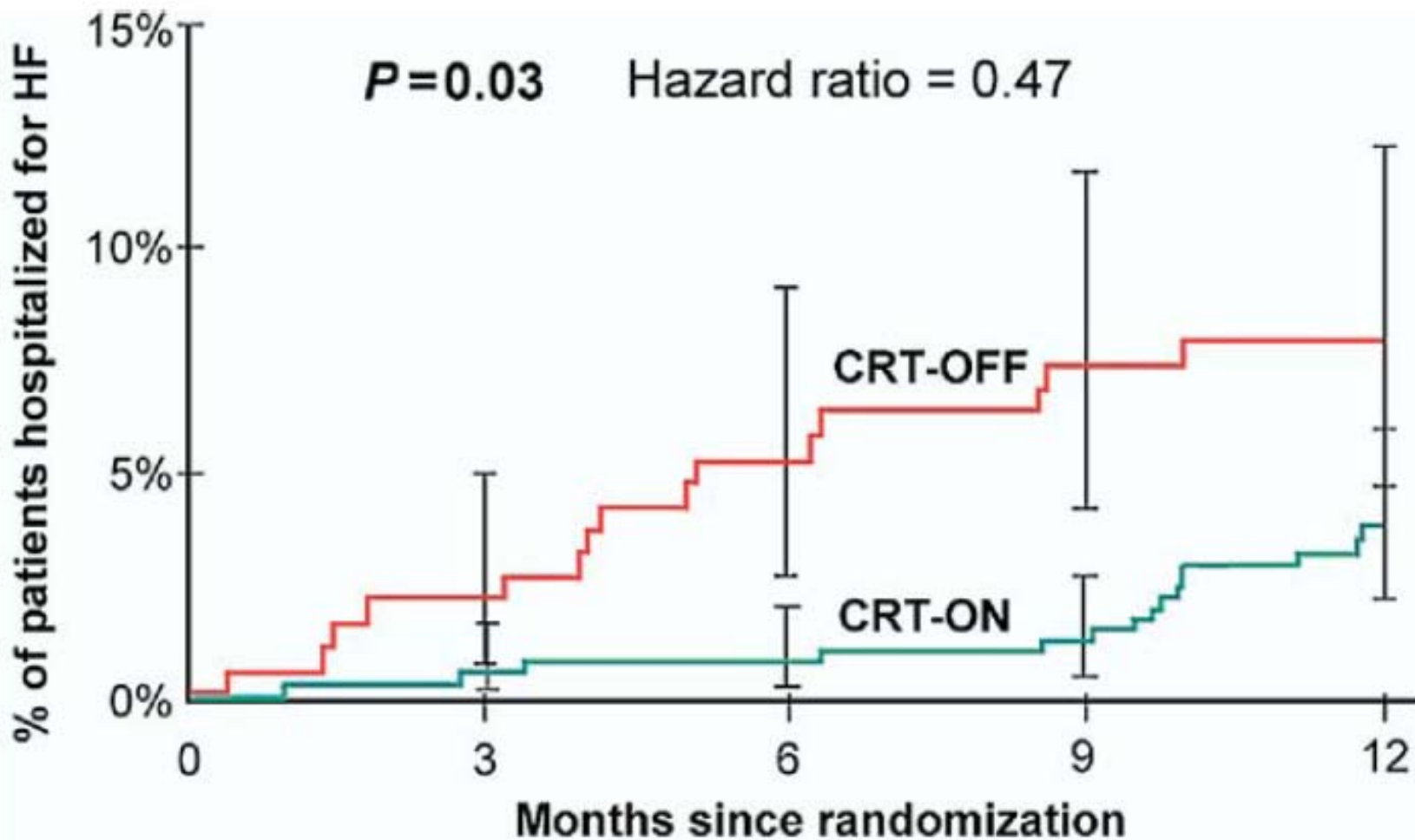
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No. at risk

CRT-OFF	191	187	181	176	119
CRT-ON	419	415	411	409	251

¿Debe anticoagularse ?

FE 25%, RS, AAS

NO

Las guías no recomiendan anticoagulación en RS, salvo presencia de trombo intracardiaco o embolia

Estudio WATCH

The Warfarin and Antiplatelet Therapy in Heart Failure Trial (WATCH): Rationale, Design, and Baseline Patient Characteristics

BARRY M. MASSIE, MD, WILLIAM F. KROL, PhD, SUSAN E. AMMON, BSN, PAUL W. ARMSTRONG, MD,
JOHN G. CLELAND, MD, JOSEPH F. COLLINS, DSc, MICHAEL EZEKOWITZ, MD, SYED M. JAFRI, MD, CHRISTOPHER M.
O'CONNOR, MD, MILTON PACKER, MD, KEVIN A. SCHULMAN, MD, KOON TEO, MD, AND STUART WARREN, PharmD

- **FE <35%, RS**
- **warfarina vs AAS vs clopidogrel**
- **Seguimiento mínimo 12 meses**
- **Muerte, IAM o ACVA no fatal**

No diferencias

Circulation. 2009 Mar 16, Epub ahead of print

¿ Si FA estaría indicada la reversión a ritmo sinusal ?

- * Las **guías** indican que **no existen clara evidencia**
- * Siempre que sea **sintomático** se podría considerar con diferentes clases de recomendación I-IIa

Estudio AF_CHF

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

JUNE 19, 2008

VOL. 358 NO. 25

Rhythm Control versus Rate Control for Atrial Fibrillation and Heart Failure

Denis Roy, M.D., Mario Talajic, M.D., Stanley Nattel, M.D., D. George Wyse, M.D., Ph.D., Paul Dorian, M.D., Kerry L. Lee, Ph.D., Martial G. Bourassa, M.D., J. Malcolm O. Arnold, M.D., Alfred E. Buxton, M.D., A. John Camm, M.D., Stuart J. Connolly, M.D., Marc Dubuc, M.D., Anique Ducharme, M.D., M.Sc., Peter G. Guerra, M.D., Stefan H. Hohnloser, M.D., Jean Lambert, Ph.D., Jean-Yves Le Heuzey, M.D., Gilles O'Hara, M.D., Ole Dyg Pedersen, M.D., Jean-Lucien Rouleau, M.D., Bramah N. Singh, M.D., D.Sc., Lynne Warner Stevenson, M.D., William G. Stevenson, M.D., Bernard Thibault, M.D., and Albert L. Waldo, M.D.,
for the Atrial Fibrillation and Congestive Heart Failure Investigators*

CONCLUSIONS

In patients with atrial fibrillation and congestive heart failure, a routine strategy of rhythm control does not reduce the rate of death from cardiovascular causes, as compared with a rate-control strategy. (ClinicalTrials.gov number, NCT00597077.)

Antidiabéticos orales en la IC

1.- No administrar tiazolidindionas

Contraindicación absoluta clase III-IV

2.- La metformina no está contraindicada por la IC

- Metformin should be considered as a first-line agent in overweight patients with type II DM without significant renal dysfunction (GFR >30 mL/min).

Class of recommendation IIa, level of evidence B

Benefits and harms of antidiabetic agents in patients with diabetes and heart failure: systematic review

Dean T Eurich, research associate,¹ Finlay A McAlister, associate professor,² David F Blackburn, assistant professor,³ Sumit R Majumdar, associate professor,² Ross T Tsuyuki, professor,⁴ Janice Varney, librarian,¹ Jeffrey A Johnson, professor⁵

BMJ 2007;335:497

Conclusion Metformin was the only antidiabetic agent not associated with harm in patients with heart failure and diabetes. It was associated with reduced all cause mortality in two of the three studies.

Estatinas en la IC

No existe clara indicación de tto con estatinas como tratamiento de base de la insuficiencia cardiaca

ORIGINAL ARTICLE

Rosuvastatin in Older Patients with Systolic Heart Failure

John Kjekshus, M.D., Ph.D., Eduard Apetrei, M.D., Ph.D., Vivencio Barrios, M.D., Ph.D., Michael Böhm, M.D., Ph.D., John G.F. Cleland, M.D., Jan H. Cornel, M.D., Ph.D., Peter Dunselman, M.D., Ph.D., Cândida Fonseca, M.D., Assen Goudev, M.D., Ph.D., Peer Grande, M.D., Ph.D., Lars Gullestad, M.D., Ph.D., Åke Hjalmarson, M.D., Ph.D., Jaromir Hradec, M.D., Ph.D., András Jánosi, M.D., D.Sc., Gabriel Kamenský, M.D., Ph.D., Michel Komajda, M.D., Jerzy Korewicki, M.D., Ph.D., Timo Kuusi, M.D., Ph.D., François Mach, M.D., Vyacheslav Mareev, M.D., Ph.D., John J.V. McMurray, M.D., Naresh Ranjith, M.D., Maria Schaufelberger, M.D., Ph.D., Johan Vanhaecke, M.D., Ph.D., Dirk J. van Veldhuisen, M.D., Ph.D., Finn Waagstein, M.D., Ph.D., Hans Wedel, Ph.D., and John Wikstrand, M.D., Ph.D., for the CORONA Group*

Effect of rosuvastatin in patients with chronic heart failure (the GISSI-HF trial): a randomised, double-blind, placebo-controlled trial

GISSI-HF investigators*

Summary

Background Large observational studies, small prospective studies and post-hoc analyses of randomised clinical trials have suggested that statins could be beneficial in patients with chronic heart failure. However, previous studies have been methodologically weak. We investigated the efficacy and safety of the statin rosuvastatin in patients with heart failure.

Methods We undertook a randomised, double-blind, placebo-controlled trial in 326 cardiology and 31 internal medicine centres in Italy. We enrolled patients aged 18 years or older with chronic heart failure of New York Heart Association class II–IV, irrespective of cause and left ventricular ejection fraction, and randomly assigned them to rosuvastatin 10 mg daily (n=2285) or placebo (n=2289) by a concealed, computerised telephone randomisation system. Patients were followed up for a median of 3.9 years (IQR 3.0–4.4). Primary endpoints were time to death, and time to death or admission to hospital for cardiovascular reasons. Analysis was by intention to treat. This study is registered with ClinicalTrials.gov, number NCT00336336.

Findings We analysed all randomised patients. 657 (29%) patients died from any cause in the rosuvastatin group and 644 (28%) in the placebo group (adjusted hazard ratio [HR] 1.00 [95.5% CI 0.898–1.122], p=0.943). 1305 (57%) patients in the rosuvastatin group and 1283 (56%) in the placebo group died or were admitted to hospital for cardiovascular reasons (adjusted HR 1.01 [99% CI 0.908–1.112], p=0.903). In both groups, gastrointestinal disorders were the most frequent adverse reaction (34 [1%] rosuvastatin group vs 44 [2%] placebo group).

Interpretation Rosuvastatin 10 mg daily did not affect clinical outcomes in patients with chronic heart failure of any cause, in whom the drug was safe.

Digoxina en la IC en RS

Las mismas recomendaciones:

- **Pacientes sintomáticos tras tto óptimo**
- **Disfunción sistólica**
- **Salvedad, concentraciones hasta 1.2**

Effectiveness of Digoxin in Reducing One-Year Mortality in Chronic Heart Failure in the Digitalis Investigation Group Trial

Ali Ahmed, MD, MPH^{a,b,*}, Finn Waagstein, MD^c, Bertram Pitt, MD^d, Michel White, MD^e,
Faiez Zannad, MD, PhD^f, James B. Young, MD^g, and Shahbudin H. Rahimtoola, MD^h

Am J Cardiol 2009;103:82–87

Anemia en la IC en RS

No existen evidencias aún suficientes

**Parece razonable tratar con agentes
estimulantes de la eritropoyesis con
Hb menor de 10 g/dL**

Erythropoiesis-stimulating agents for anaemia in chronic heart failure patients (Protocol)

Ngo K, Kotecha D, Manzano L, Walters JAE, Flather M

CTEU. Royal Brompton. Londres



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Anemia: The Point of Convergence or Divergence for Kidney Disease and Heart Failure?

Amir Kazory, MD, Edward A. Ross, MD

Gainesville, Florida

Cardiorenal anemia syndrome refers to the simultaneous presence of anemia, heart failure (HF), and chronic kidney disease (CKD) that forms a pathologic triangle with an adverse impact on morbidity and mortality. The reciprocal relationships among these 3 components have been the subject of a number of trials with inconsistent and sometimes paradoxical results. In this paper, the pathophysiologic concepts underlying interactions among these 3 conditions are discussed. Then, the similarities and dissimilarities of the relationships between anemia and either HF or CKD are considered; explanations are provided for differences in the results of the currently available studies. Erythropoietin-stimulating agent protocols are usually based on the results of studies designed for the CKD population, and upper hemoglobin target levels are chosen to avoid cardiovascular complications. It is not yet clear whether those renal guidelines are optimal for patients with HF, especially because those patients may have reversible components of kidney dysfunction, both HF and renal parameters improving with anemia correction. We review these issues and suggest a pragmatic approach to the care of patients with HF until such time that controlled trials establish definitive anemia treatment goals that are dynamic and disease specific, rather than those that adopt a more simplistic hemoglobin-specific approach. (J Am Coll Cardiol 2009;53:639–47) © 2009 by the American College of Cardiology Foundation

J Am Coll Cardiol 2009;53:639–47)

Otras medidas en pacientes con IC

- * No es necesaria la restricción de **líquidos** salvo cuando cuando exista hiponatremia
- * Se puede permitir la ingesta de 10-20 **g/alcohol** día
- * **Ejercicio** físico diario moderado reduce mortalidad
- * Es preferible viajar en **avión**.
- * **Evitar** estancias en altitudes >1500 m. y en sitios húmedos y calurosos

IC con fracción de eyección preservada

* Charm Preserved

* PEP_CHF

* I-Preserved

Adjusted-dose anticoagulation reduces the risk of thromboembolic complications including stroke.

Class of recommendation I, level of evidence A

Anticoagulation is also recommended in patients with intracardiac thrombus detected by imaging or evidence of systemic embolism.

Class of recommendation I, level of evidence C

Key evidence

- The evidence that anticoagulants are effective in reducing thromboembolism in patients with AF is summarized in the joint ACC/AHA/ESC Guidelines [124].
- In a series of randomized trials in patients with AF, which included patients with HF, warfarin reduced the risk of stroke by 60–70%.
- Warfarin was more effective in reducing the risk of stroke than antiplatelet therapy and is preferred over antiplatelet therapy in patients at high-risk of stroke, such as those with HF [125].
- There is no proven role for anticoagulation in other patients with HF, except in those with a prosthetic valve.

Antiplatelet agents

Key evidence

- Antiplatelet agents are not as effective as warfarin in reducing the risk of thromboembolism in patients with AF.
- In a pooled analysis of two small trials comparing warfarin and aspirin in patients with HF, the risk of HF hospitalization was significantly greater in aspirin-treated, compared with warfarin-treated patients [126].
- There is no evidence that antiplatelet agents reduce atherosclerotic risk in patients with HF.

HMG CoA reductase inhibitors ('statins')

In elderly patients with symptomatic chronic heart failure and systolic dysfunction caused by CAD, statin treatment may be considered to reduce cardiovascular hospitalization.

Class of recommendation IIb, level of evidence B

Key evidence

- Most trials with statins excluded patients with HF. Only one trial, CORONA, specifically studied a statin in patients with symptomatic HF, ischaemic aetiology, and reduced EF. Rosuvastatin did not reduce the primary end-point (cardiovascular death, MI, or stroke) or all-cause

mortality. The number of hospitalizations for cardiovascular causes was reduced significantly [127].

- The value of statins in HF patients with a non-ischaemic aetiology is unknown.

Management of patients with heart failure and preserved left ventricular ejection fraction (HFPEF)

- No treatment has yet been shown, convincingly, to reduce morbidity and mortality in patients with HFPEF. Diuretics are used to control sodium and water retention and relieve breathlessness and oedema. Adequate treatment of hypertension and myocardial ischaemia is also considered to be important, as is control of the ventricular rate in patients with AF. Two very small studies (<30 patients each) have shown that the heart rate-limiting calcium channel blocker verapamil may improve exercise capacity and symptoms in these patients [128,129].
- The 3023 patient Candesartan in Heart Failure: Assessment of Reduction in Mortality and Morbidity (CHARM)-Preserved trial did not show a significant reduction in the risk of the primary composite end-point (adjudicated death from cardiovascular causes or admission with HF) but did show a significant reduction in the risk of investigator-reported admissions for HF [130]. The 850 patient Perindopril for Elderly People with Chronic Heart failure (PEP-CHF) study failed to show a reduction in this composite primary end-point over the total duration of the trial, but showed a significant reduction in cardiovascular death and HF hospitalization at 1 year [131].

Devices and surgery

Revascularization procedures, valvular and ventricular surgery

- If clinical symptoms of HF are present, surgically correctable conditions should be detected and corrected if indicated.
- CAD is the most common cause of HF and is present in 60–70% of patients with HF and impaired LVEF [132,133]. In HFPEF, CAD is less frequent but still may be detected in up to half of these patients [39]. Ischaemic aetiology is associated with a higher risk of mortality and morbidity.

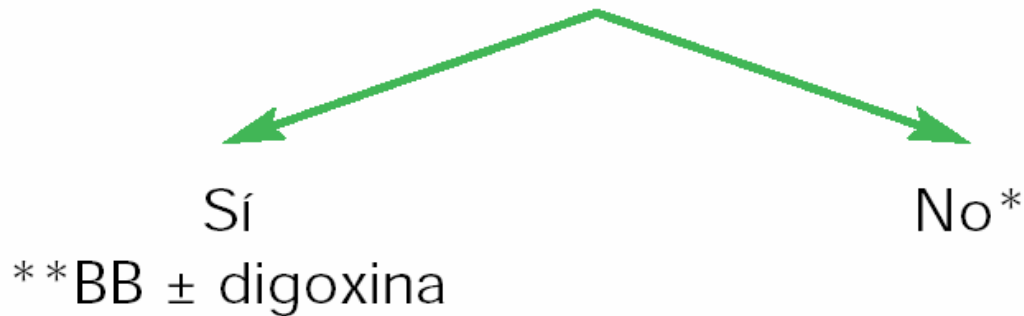
Revascularization in patients with heart failure

Both a coronary artery bypass grafting (CABG) and percutaneous coronary intervention (PCI) should be considered in selected HF patients with CAD. Decisions regarding the choice of the method of revascularization should be based on a careful evaluation of co-morbidities, procedural risk, coronary anatomy and evidence of the extent of viable myocardium in the area to be revascularized, LV function, and the presence of haemodynamically significant valvular disease.

IC-FE ≥ 50

Valorar FC

≥ 80 l.p.m. en reposo
> 100-120 l.p.m. leves esfuerzos



Valorar TA

$\geq 130/80$



Clinical Effectiveness of Beta-Blockers in Heart Failure

Findings From the OPTIMIZE-HF (Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients With Heart Failure) Registry

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Gregg C. Fonarow, MD, FACC‡

Durham, North Carolina; and Los Angeles, California

J Am Coll Cardiol 2009;53:184–92

Patients with preserved systolic function had poor outcomes, and beta-blockers did not significantly influence the mortality and rehospitalization risks for these patients

Varón de 78 años

(octubre del 2004)

- * Cardiopatía isquémica no revas.**
- * IC CF III-IV, FE 25%.**
- * Creatinina: 2.5, TA 88/55**
- * Digoxina y seguril**
- * Ingresos por EAP**

Varón de 78 años

(11-04 / 3-05)

- * Digoxina según niveles**
- * IECA: dosis máximas**
- * BB: $\frac{3}{4}$ dosis máximas**
- * TA 105/75**
- * Función renal estable**
- * CF II (estable hasta ahora)**

