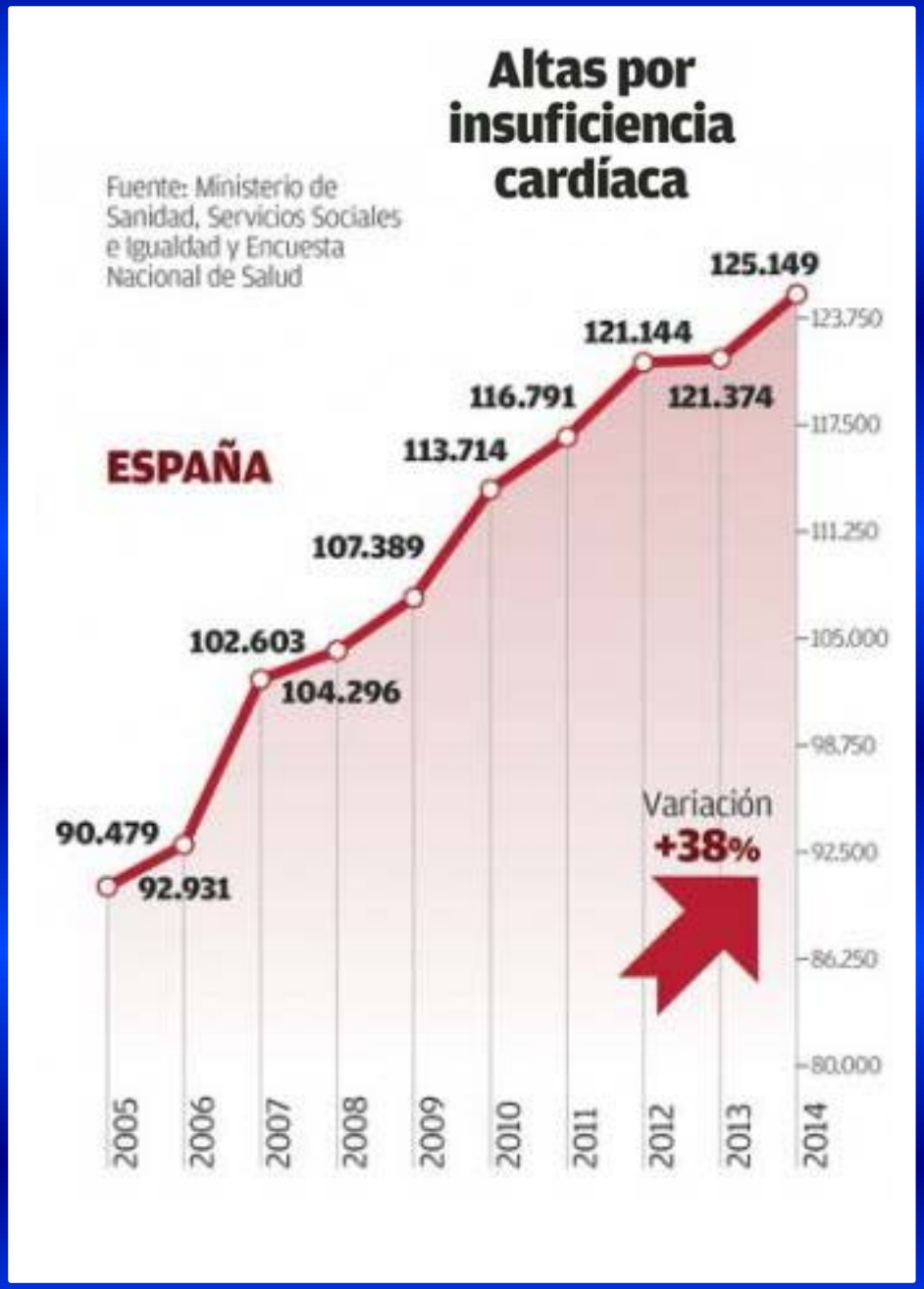
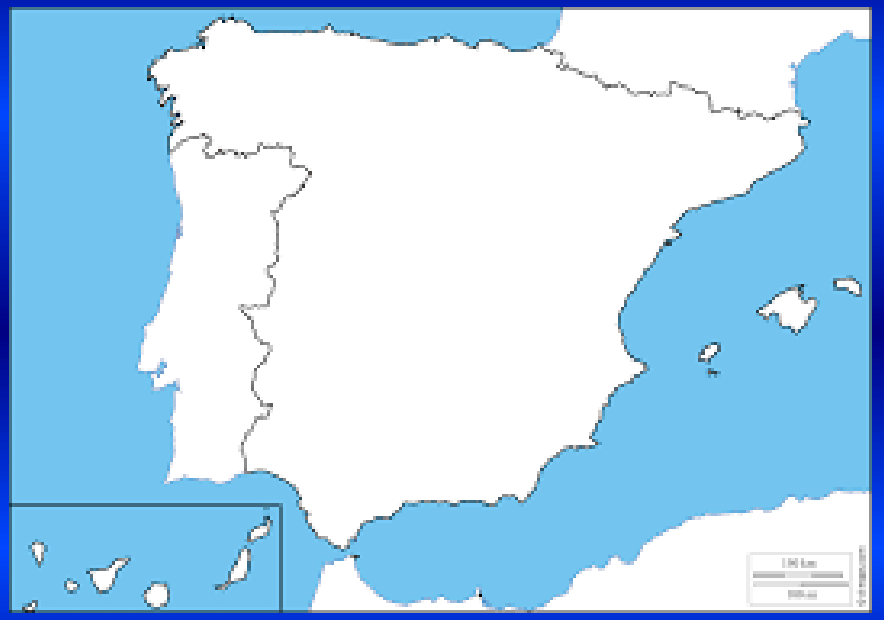
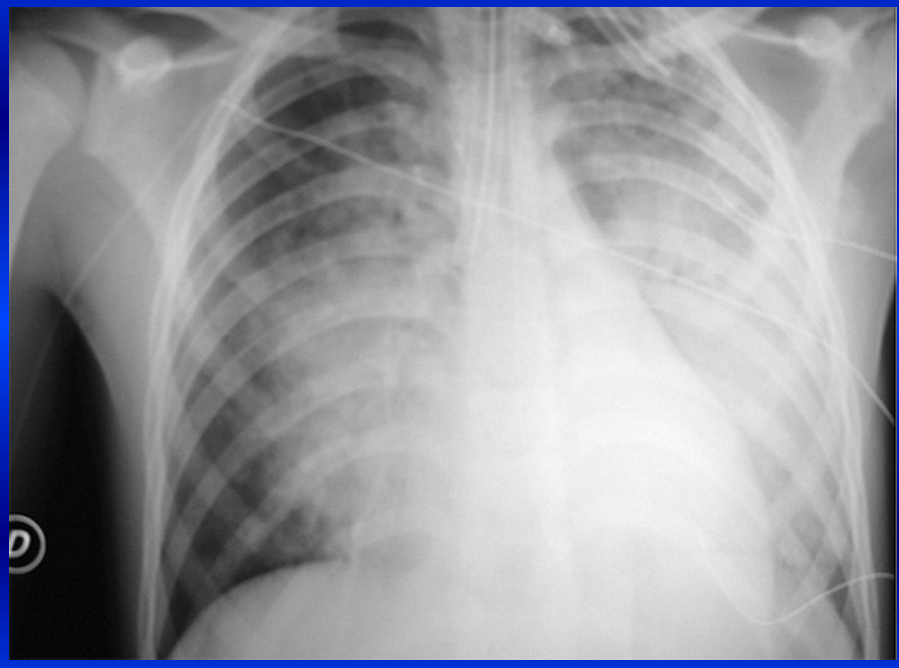
ACTUALIZACIÓN EN I.CARDIACA SACUBITRILO/VALSARTÁN

Manuel Beltrán Robles
Medicina Interna
Hospital Virgen del Camino
Sanlúcar de Bda-Cádiz


Altas por insuficiencia cardíaca
Fuente: Ministerio de Sanidad, Servicios Sociales e Igualdad y Encuesta Nacional de Salud
ESPAÑA
90.479
92.931
102.603
104.296
107.389
113.714
116.791
121.144
121.374
125.149
Variación
+38%
123.750
117.500
111.250
105.000
98.750
92.500
86.250
80.000
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014



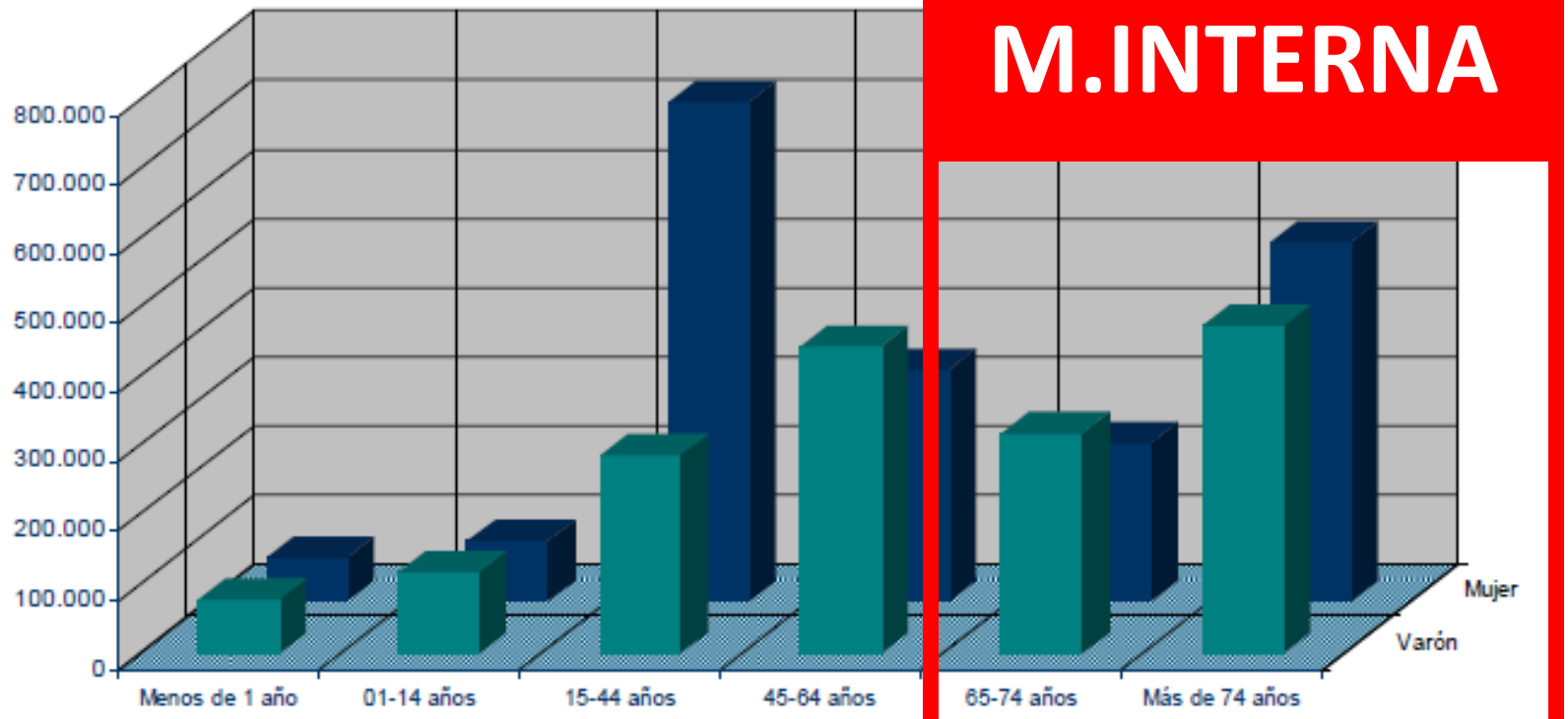


La hospitalización en el Sistema Nacional de Salud CMBD – Registro de altas

Informe resumen 2010

4.500.000 ALTAS

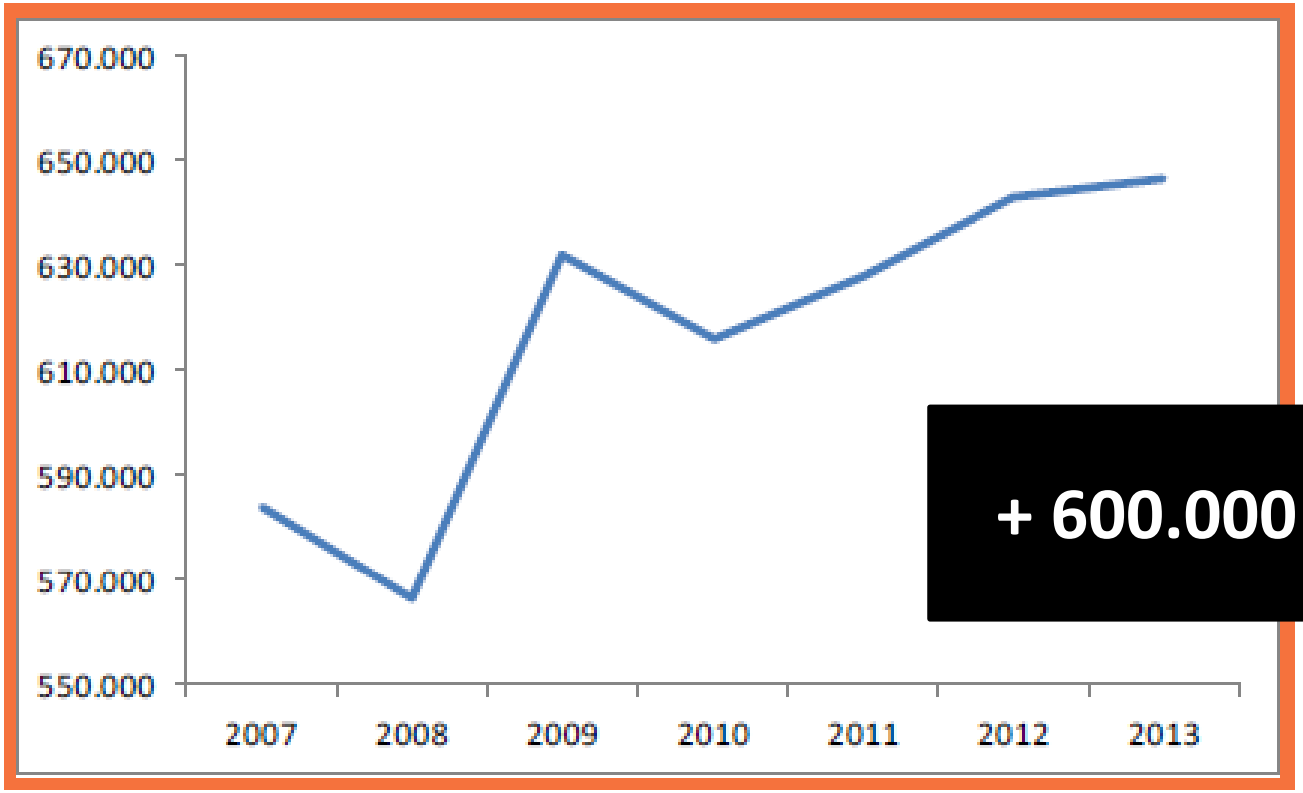
Gráfico 2: Distribución de altas por grandes grupos de edad y sexo. SNS. Año 2010.



M.INTERNA

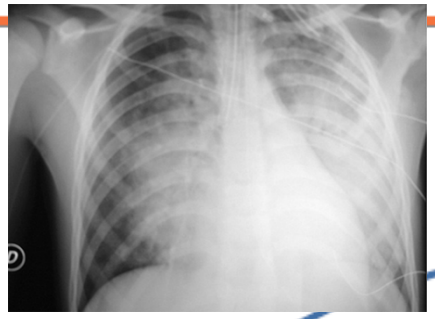
Figura 3.1. Evolución altas MI. 2007-2013

240 HOSPITALES



+ 600.000 ALTAS

Figura 3.2. Evolución altas para los 10 primeros diagnósticos. UMI. 2007-2013



1 de cada 5 personas en el mundo sufrirá I.CARDIACA

DE LOS QUE INGRESAN, LA MITAD MUEREN 5 AÑOS DESPUÉS

CAUSA + FREC. HOSPITALIZACIÓN EN MAYORES DE 65 AÑOS

#LOESTAMOSCAMBIANDO

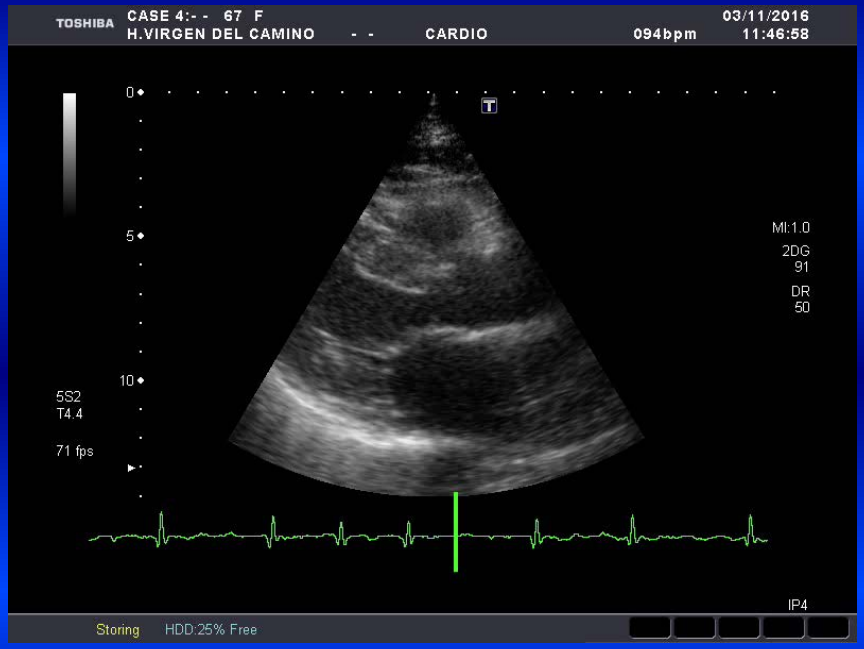
Chroni decline

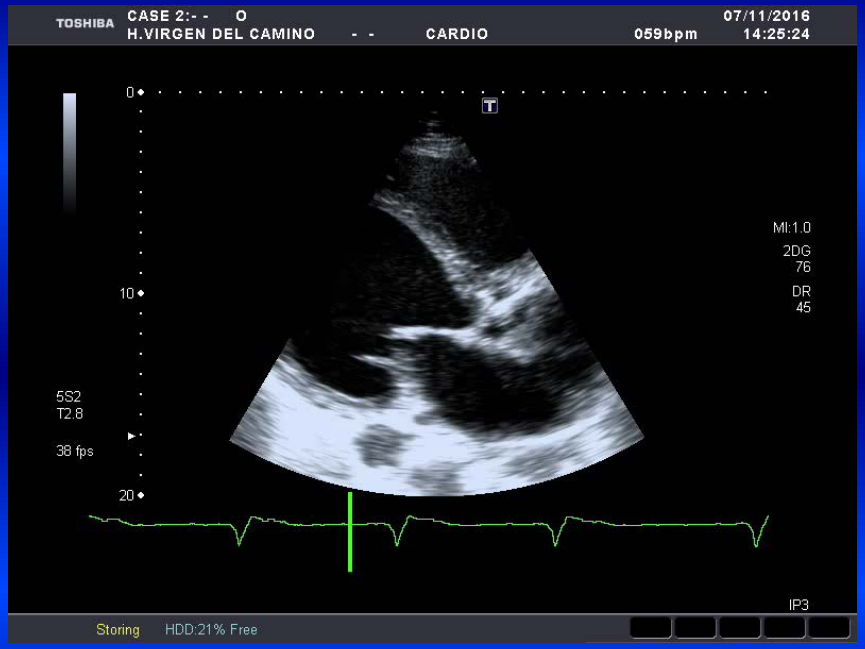
Cardiac function

Hospitalizations for acute decompensations

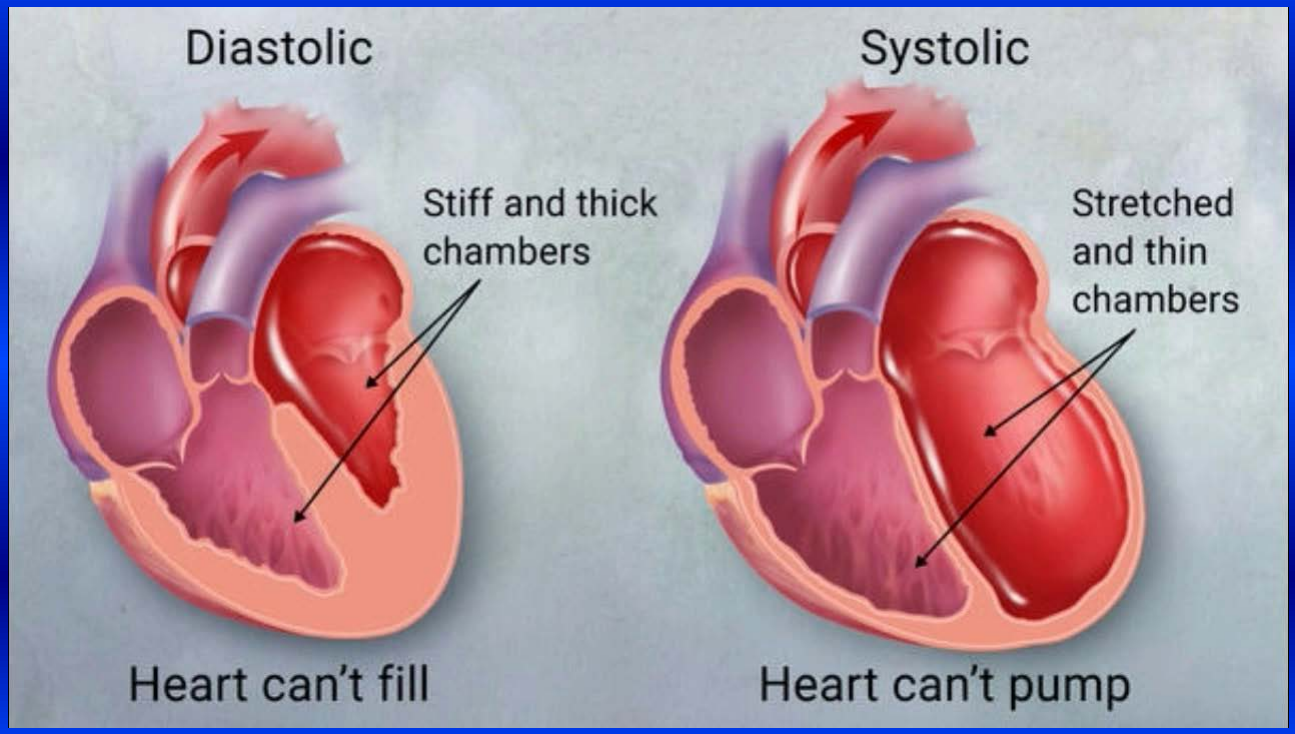
Disease progression

VULNERABILIDAD


TOSHIBA
CASE 4:- - 67 F
H.VIRGEN DEL CAMINO - -
CARDIO
094bpm
03/11/2016
11:46:58
MI:1.0
2DG
91
DR
50
5S2
T4.4
71 fps
IP4
Storing
HDD:25% Free


TOSHIBA
CASE 2:- - O
H.VIRGEN DEL CAMINO - -
CARDIO
059bpm
07/11/2016
14:25:24
MI:1.0
2DG
76
DR
45
5S2
T2.8
38 fps
IP3
Storing
HDD:21% Free

2/3

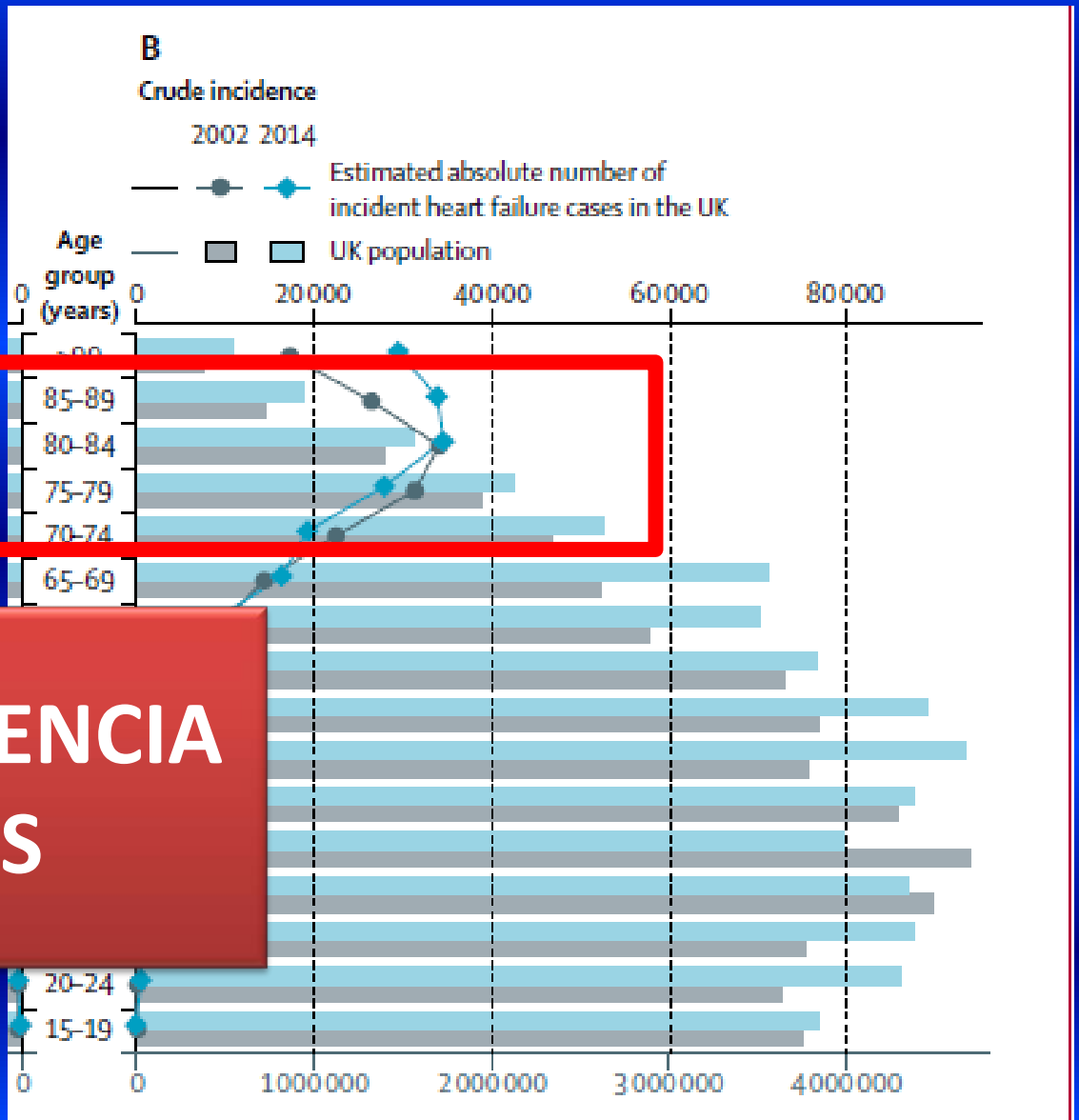

Diastolic
Systolic
Stiff and thick chambers
Stretched and thin chambers
Heart can't fill
Heart can't pump

1/3

Temporal trends and patterns in heart failure incidence: a population-based study of 4 million individuals

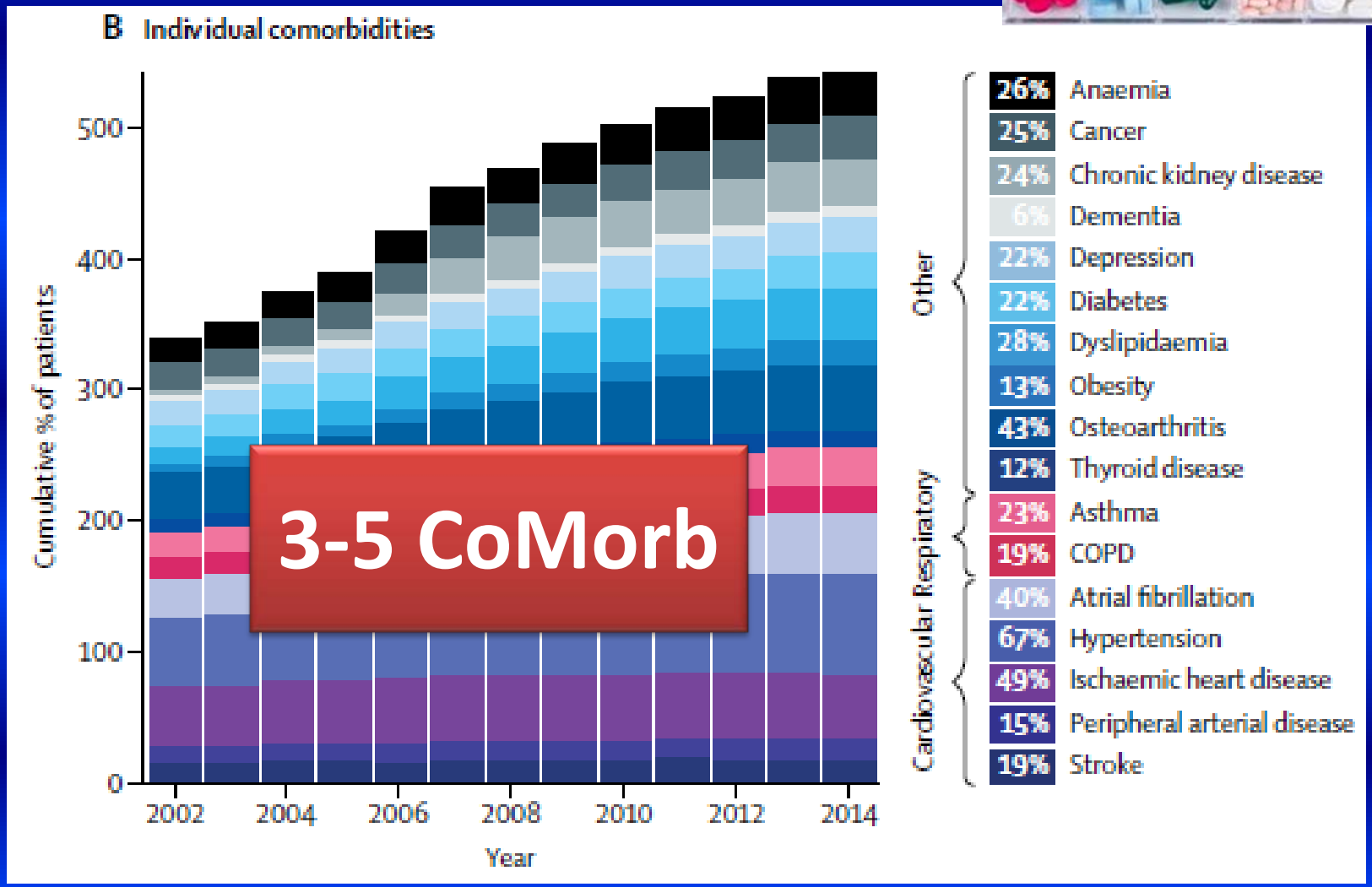
Nathalie Conrad, Andrew Judge, Jenny Tran, Hamid Mohseni, Deborah Hedgecott, Abel Perez Crespillo, Moira Allison, Harry Hemingway, John G Cleland, John J V McMurray, Kazem Rahimi

Vol 391 February 10, 2018



MÁXIMA INCIDENCIA 70-85 AÑOS

COMORBILIDADES

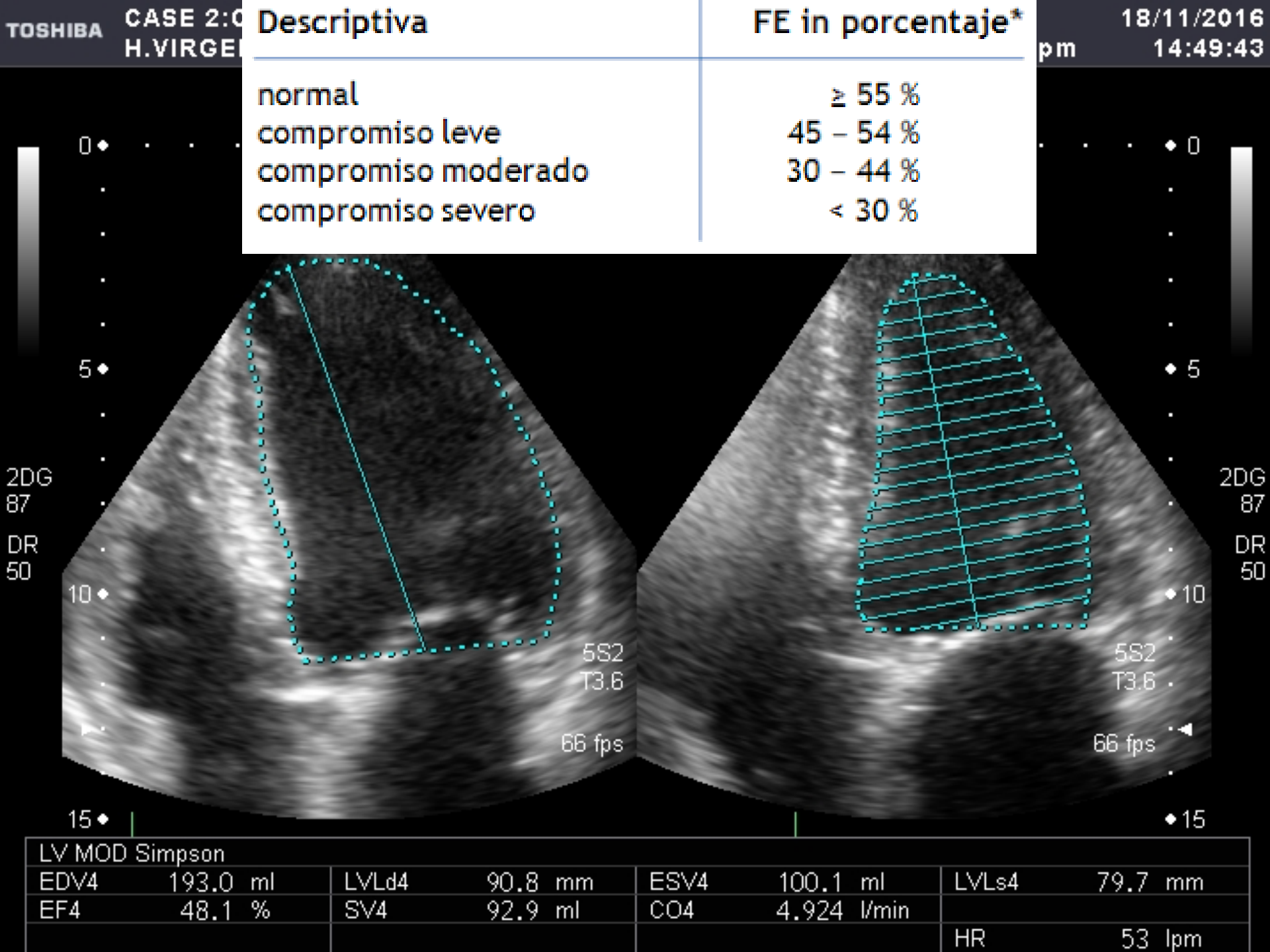


M.INTERNA

hay un intruso entre nosotros







Descriptiva	FE in porcentaje*
normal	≥ 55 %
compromiso leve	45 – 54 %
compromiso moderado	30 – 44 %
compromiso severo	< 30 %

European Heart Journal Advance Access published May 20, 2016

European Heart Journal
doi:10.1093/eurheartj/ehw128

ESC GUIDELINES

2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)

Table 3.1 Definition of heart failure with preserved (HFpEF), mid-range (HFmrEF) and reduced ejection fraction (HFrEF)

Type of H		HFrEF	HFmrEF	HFpEF
CRITERIA	1	Symptoms ± Signs[a]	Symptoms ± Signs[a]	Symptoms ± Signs[a]
	2	LVEF <40%	LVEF 40–49%	LVEF ≥50%
	3	–	1. Elevated levels of natriuretic peptides[b]; 2. At least one additional criterion: relevant structural heart disease (LVH and/or LAE), diastolic dysfunction (for details see Section 4.3.2).	1. Elevated levels of natriuretic peptides[b]; 2. At least one additional criterion: a. relevant structural heart disease (LVH and/or LAE), b. diastolic dysfunction (for details see Section 4.3.2).

SIGNOS + SÍNTOMAS + FE < 40%

Pharmacological treatments indicated in patients with symptomatic (NYHA Class II-IV) heart failure with reduced ejection fraction

Recommendations	Class [a]	Level [b]	Ref [c]
An ACE-I[d] is recommended, in addition to a beta-blocker, for symptomatic patients with HFrEF to reduce the risk of HF hospitalization and death.	I	A	2, 163 –165
A beta-blocker is recommended, in addition an ACE-I[d], for patients with stable, symptomatic HFrEF to reduce the risk of HF hospitalization and death.	I	A	167– 173
An MRA is recommended for patients with HFrEF, who remain symptomatic despite treatment with an ACE-I[d] and a beta-blocker, to reduce the risk of HF hospitalization and death.	I	A	174, 175

IECA

B-BLOQ

ARM

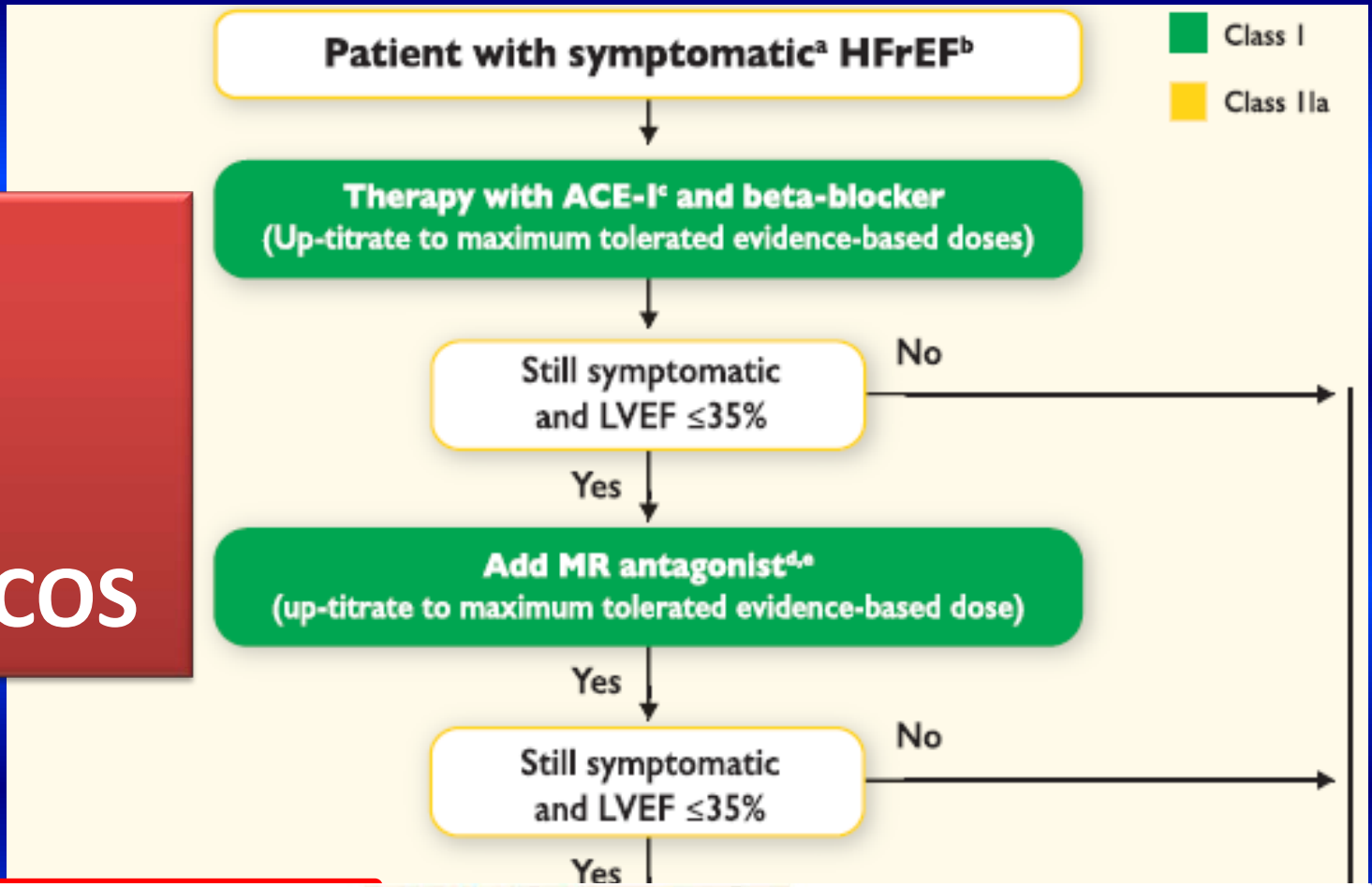
HOSPITALIZACIÓN
MUERTE

7.3 Other treatments recommended in selected symptomatic patients with heart failure with reduced ejection fraction

7.3.1 Diuretics

Diuretics are recommended to reduce the signs and symptoms of congestion in patients with HFrEF, but their effects on

- IECA
- BB
- ARM
- DIURÉTICOS



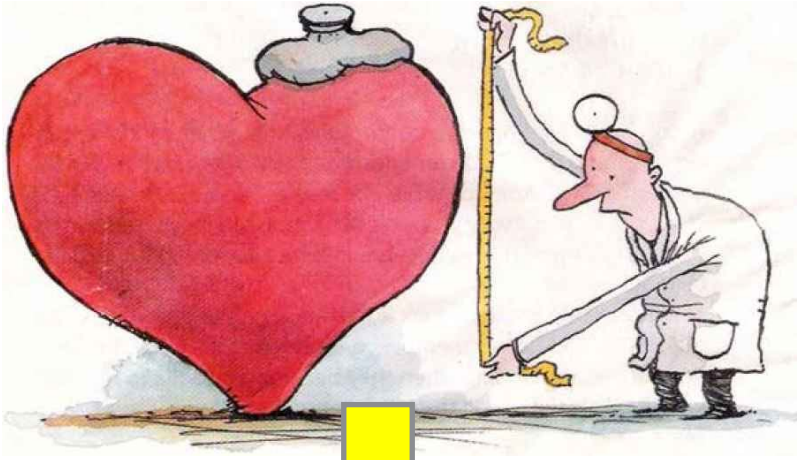
ARNI to replace ACE-I

INHIBIDORES DE LA NEPRILISINA Y RECEPTORES DE ANGIOTENSINA

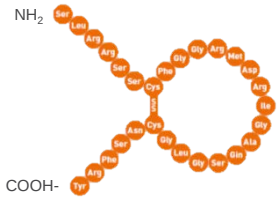
LCZ696

SACUBITRIL

VALSARTAN



Péptido natriurético atrial (ANP)

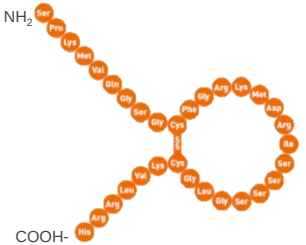


- Expresado en la **aurícula**
- Medible en plasma

Péptido natriurético tipo C (CNP)

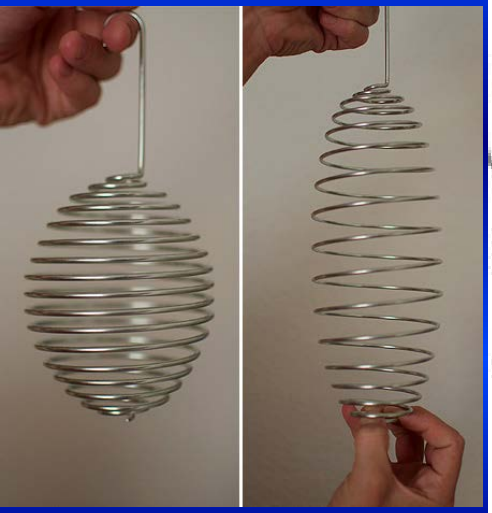
- Expresado en **células endoteliales vasculares** y **sistema nervioso central**
- No detectable en plasma – actua localmente en tejidos

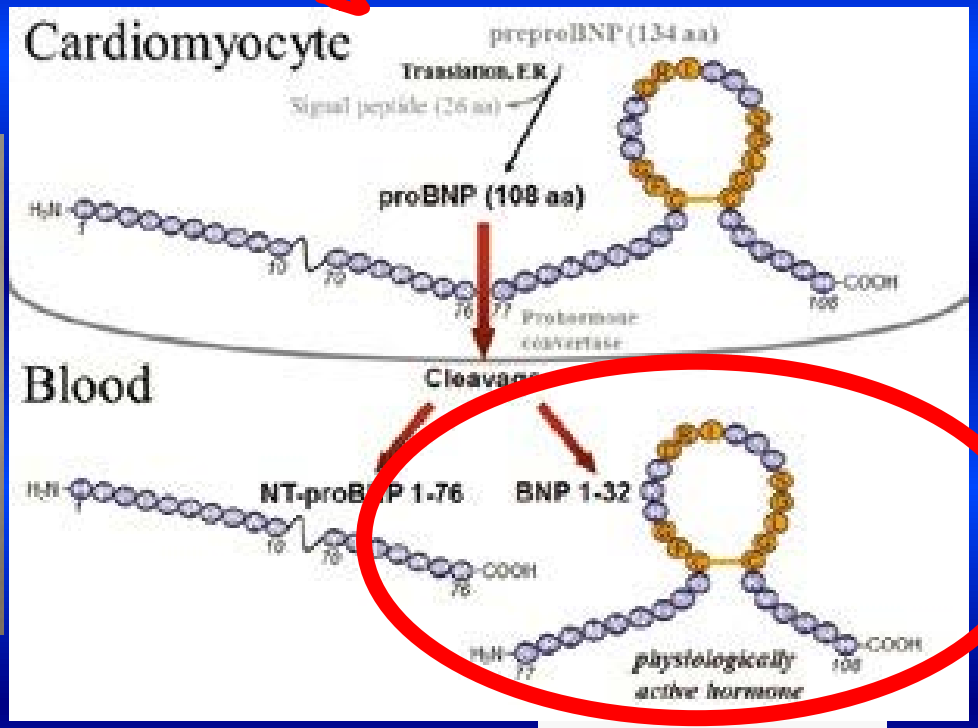
Péptido natriurético tipo B (BNP)

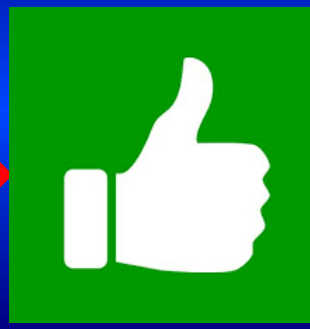


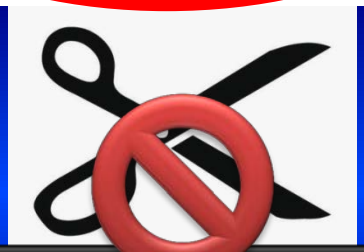
- Expresado en **aurícula** y **tejido ventricular**
- Medible en plasma

EFECTOS BENEFICIOSOS



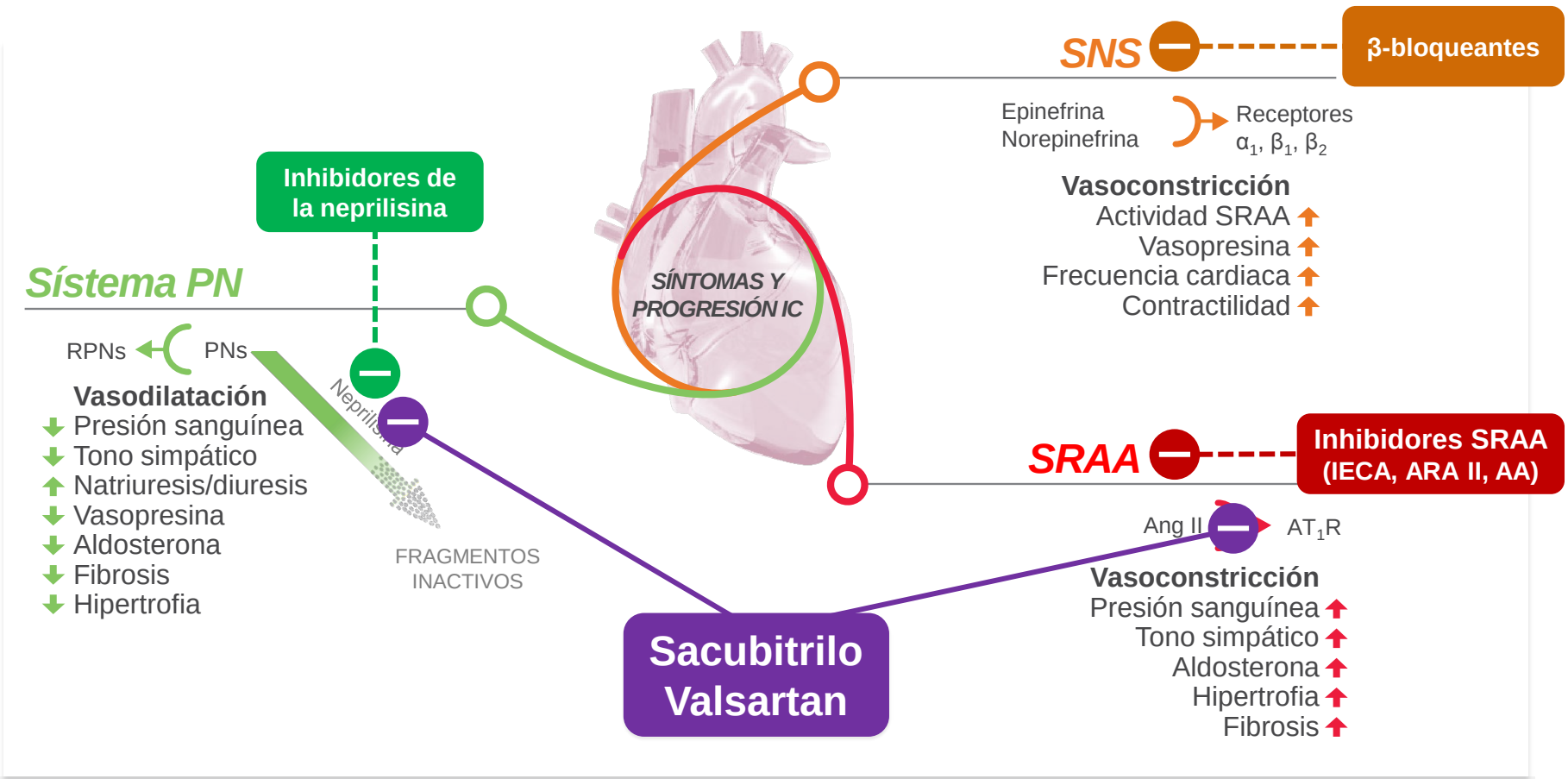






SACUBITRILO → **NEPRILISINA**

SAC/VAL nueva alternativa a los IECAs en pacientes con IC crónica con disfunción sistólica



- LCZ696: aumento de péptidos natriuréticos (inhibiendo Neprilisina) con supresión simultánea del SRAA


IECA
Omapatrilato
ECA
Valsartan
Sacubitril
Aminopeptidasa
Angioedema
SIN AUMENTO DE ANGIOEDEMA
NEP
Adrenomedulina
Sustancia P
Bradiquinina
Endotelina
DPP IV

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 SEPTEMBER 11, 2014 VOL. 371 NO. 11

Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure

8442 Pacientes
IC NYHA II-IV
FE DEPRIMIDA
FGe>30 ml/min/1,73m2

ENALAPRIL
10 mg/12h

LCZ696
200 mg/12h

MUERTE CV Y HOSPITALIZACIÓN POR I.CARDIACA

PARADIGM-HF: Resumen características basales pacientes

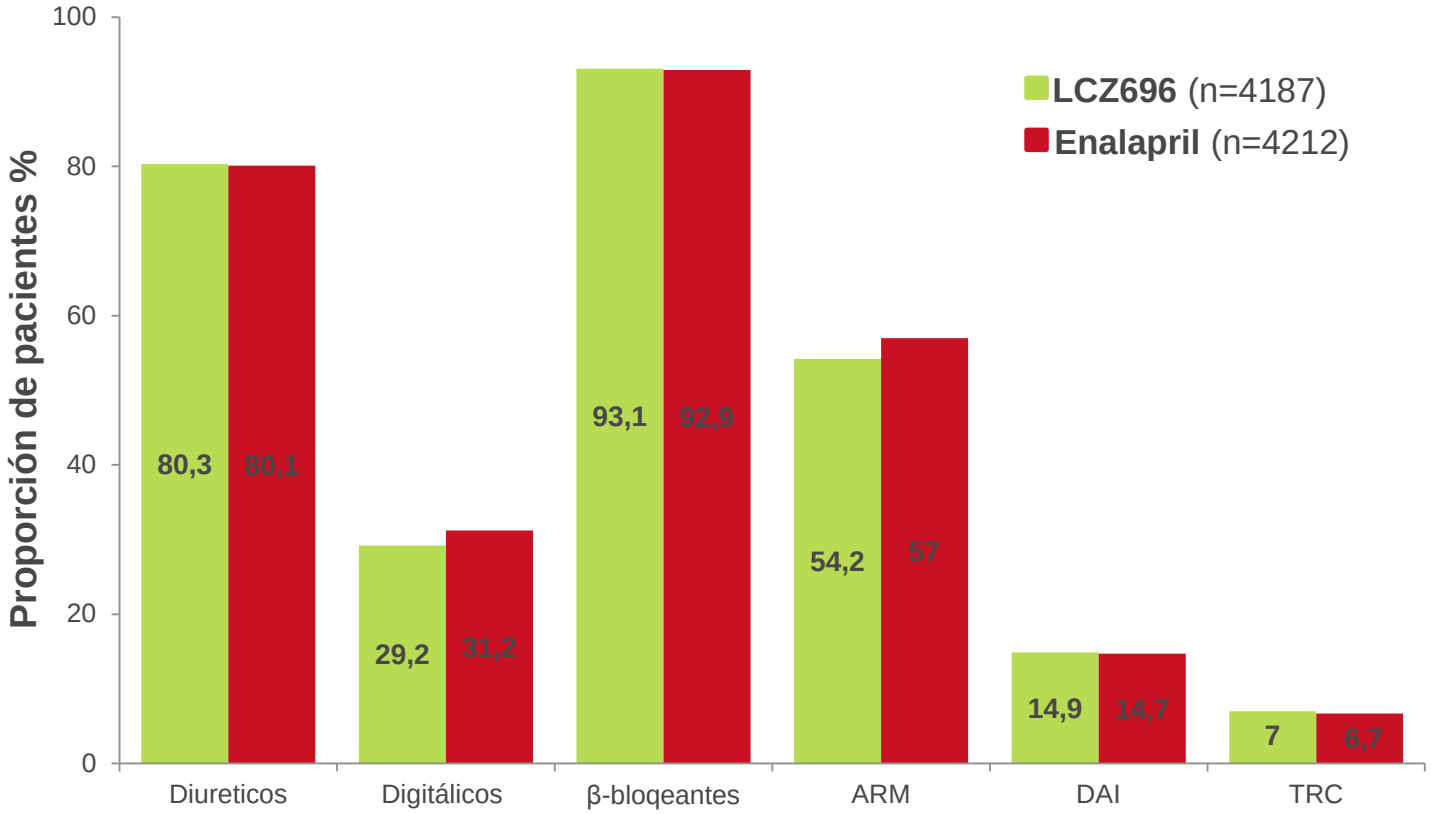
Características*	LCZ696 (n=4187)	Enalapril (n=4212)	
Edad, años	63.8 ± 11.5	63.8 ± 11.3	
Mujeres, n (%)	879 (21.0)	953 (22.6)	
Cardiopatia isquémica, n (%)	2506 (59.9)	2530 (60.1)	
Clase funcional NYHA, n (%) II III	 2998 (71.6) 969 (23.1)	 2921 (69.3) 1049 (24.9)	
Diabetes, n (%)	1451 (34.7)	1456 (34.6)	
FEVI, %	29.6 ± 6.1	29.4 ± 6.3	
PAS, mmHg	122 ± 15	121 ± 15	
FC, latidos/min	72 ± 12	73 ± 12	
NT pro-BNP, pg/mL (IQR)	1631 (885–3154)	1594 (886–3305)	
BNP, pg/mL (IQR)	255 (155–474)	251 (153–465)	

LCZ696
Enalapril

VARÓN
63 AÑOS
FE 29%
NYHA II
TAS:122 mmHg
Fc: 72 lpm
NT pro-BNP:1600 pg/ml

PARADIGM-HF: Resumen características basales pacientes

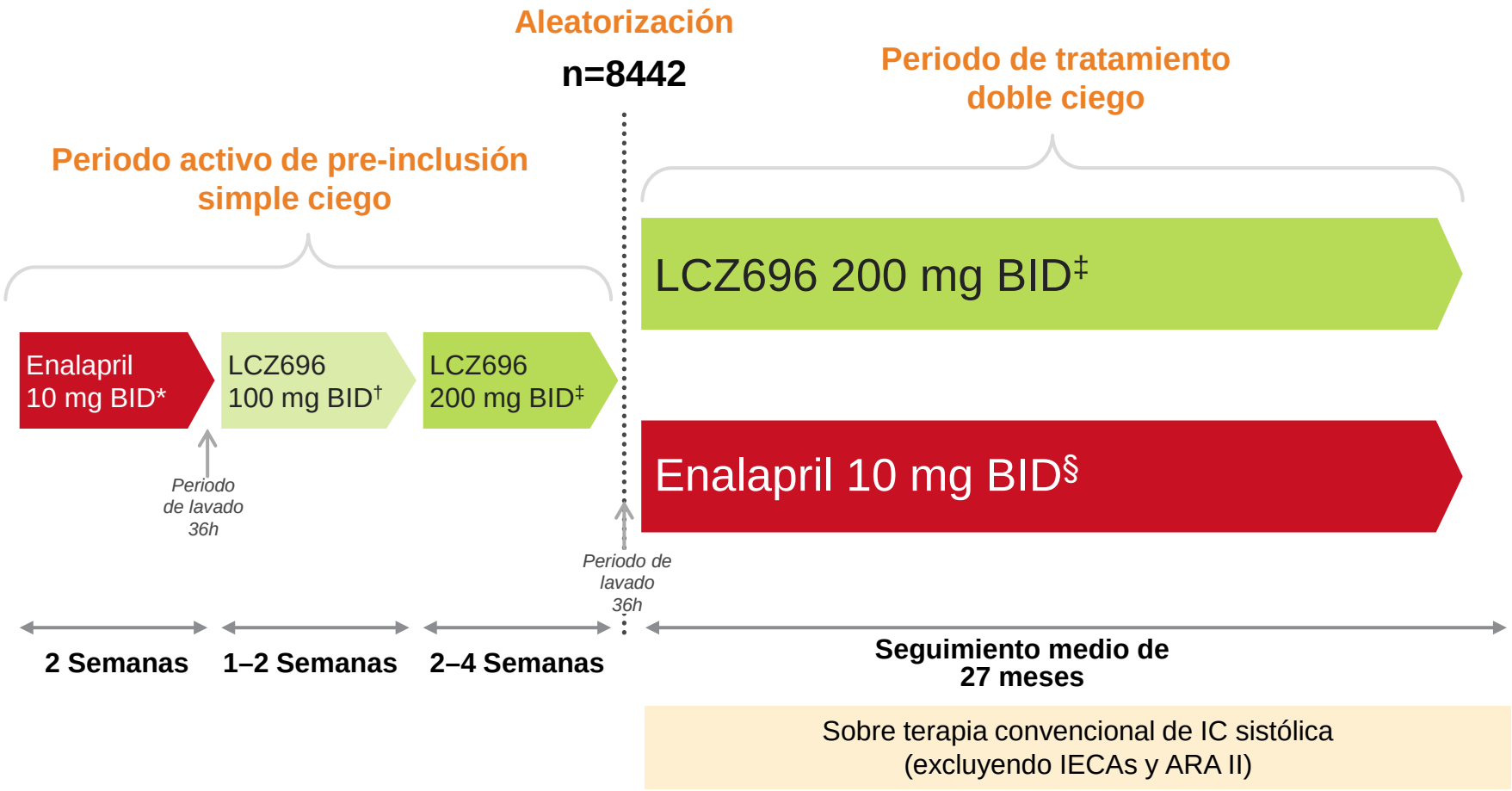
Tratamientos en el momento de la randomización



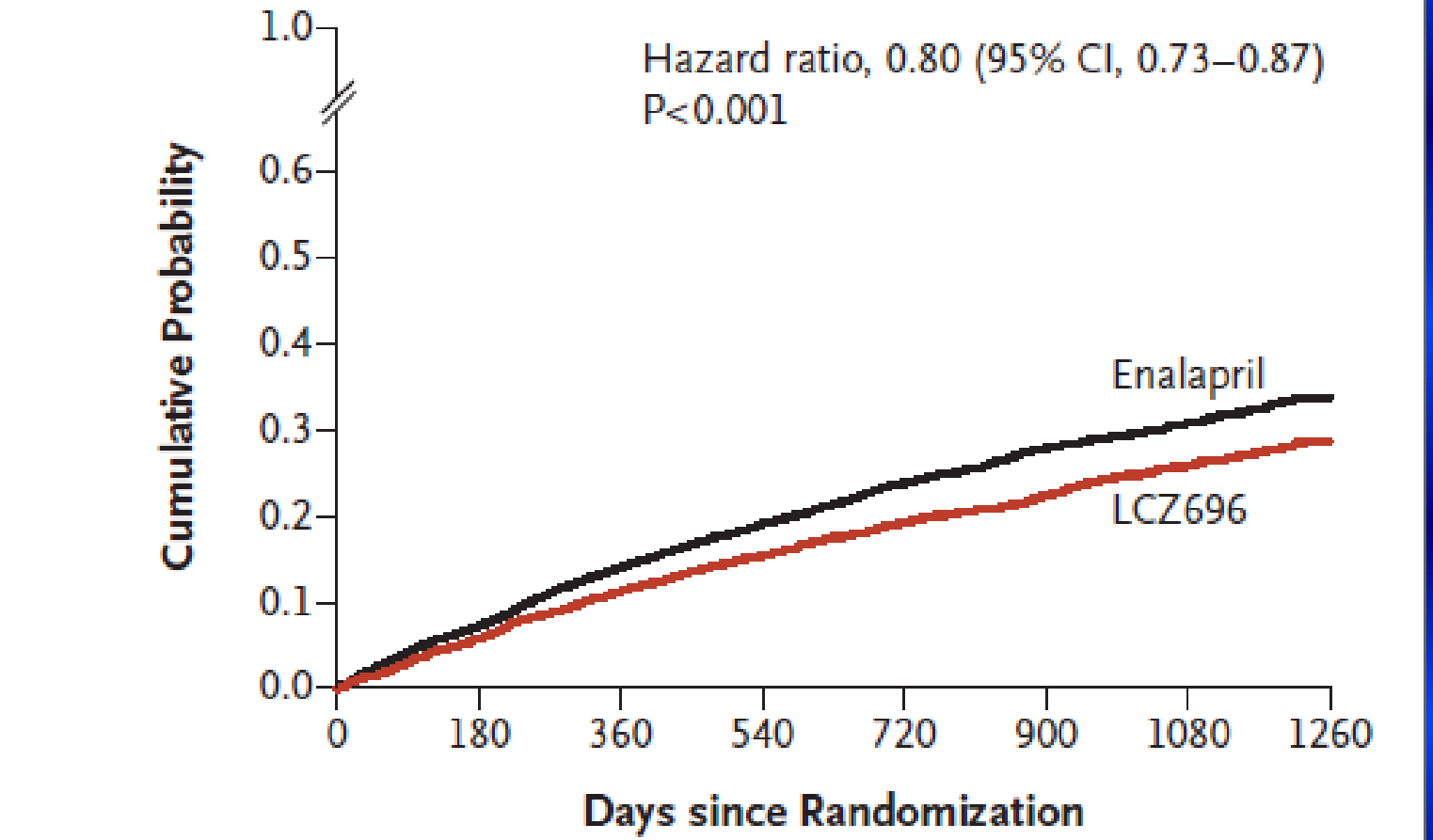
*media ± standard deviation, unless stated

Recreated from Novartis internal data, CLCZ696B2314
Table 1 of McMurray, et al. *N Engl J Med* 2014

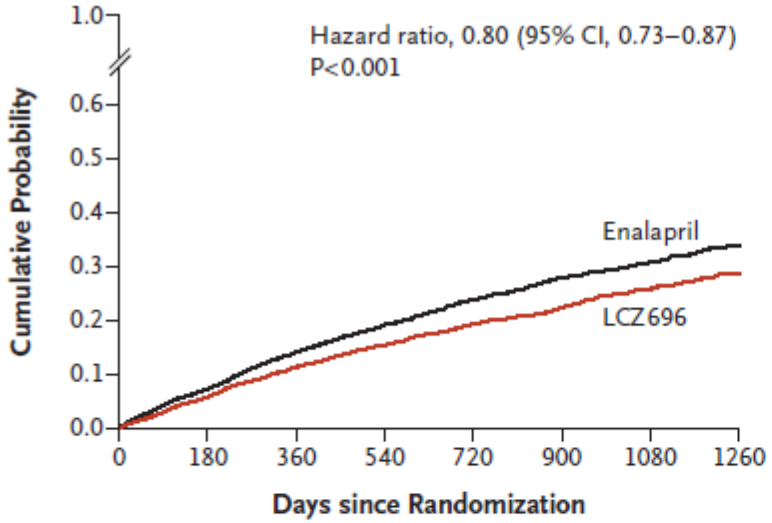
PARADIGM-HF: *Diseño del estudio*



STOP 27 meses



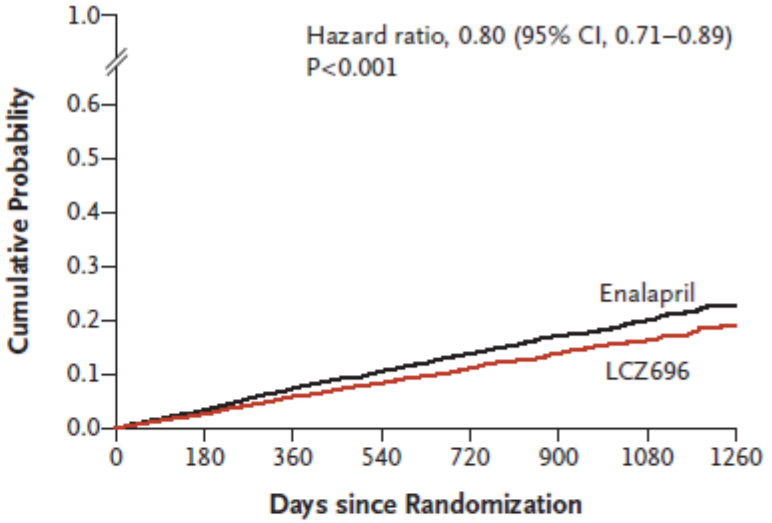
A Primary End Point



No. at Risk

LCZ696	4187	3922	3663	3018	2257	1544	896	249
Enalapril	4212	3883	3579	2922	2123	1488	853	236

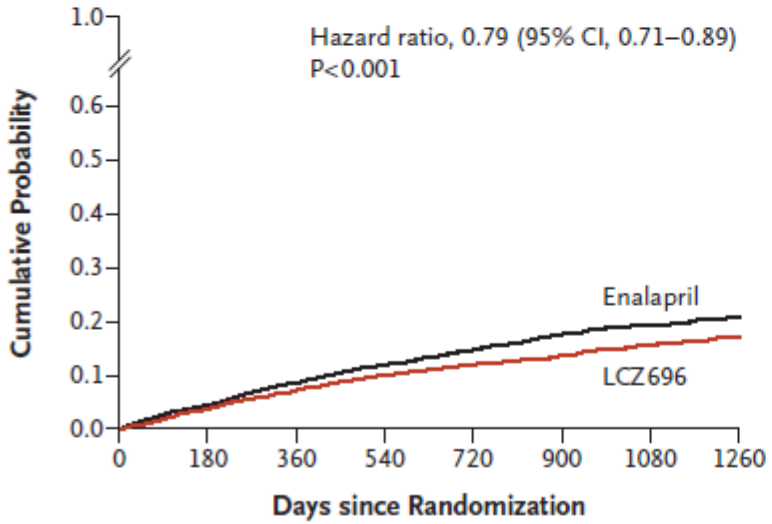
B Death from Cardiovascular Causes



No. at Risk

LCZ696	4187	4056	3891	3282	2478	1716	1005	280
Enalapril	4212	4051	3860	3231	2410	1726	994	279

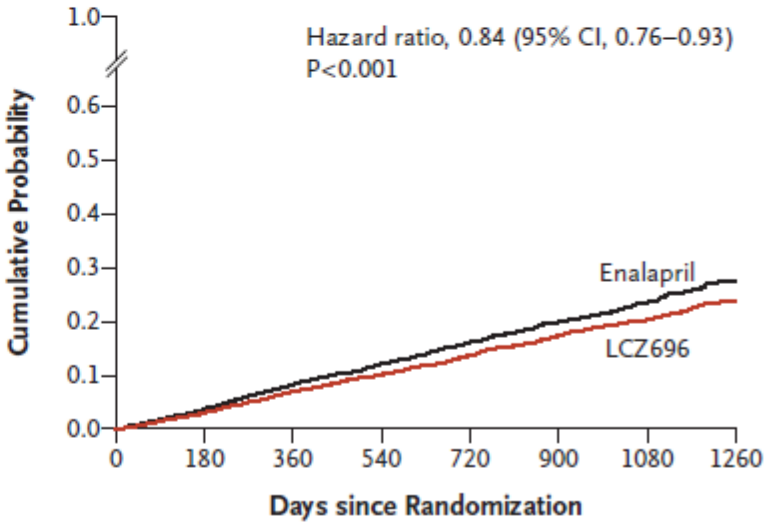
C Hospitalization for Heart Failure



No. at Risk

LCZ696	4187	3922	3663	3018	2257	1544	896	249
Enalapril	4212	3883	3579	2922	2123	1488	853	236

D Death from Any Cause



No. at Risk

LCZ696	4187	4056	3891	3282	2478	1716	1005	280
Enalapril	4212	4051	3860	3231	2410	1726	994	279

Table 3. Adverse Events during Randomized Treatment.*

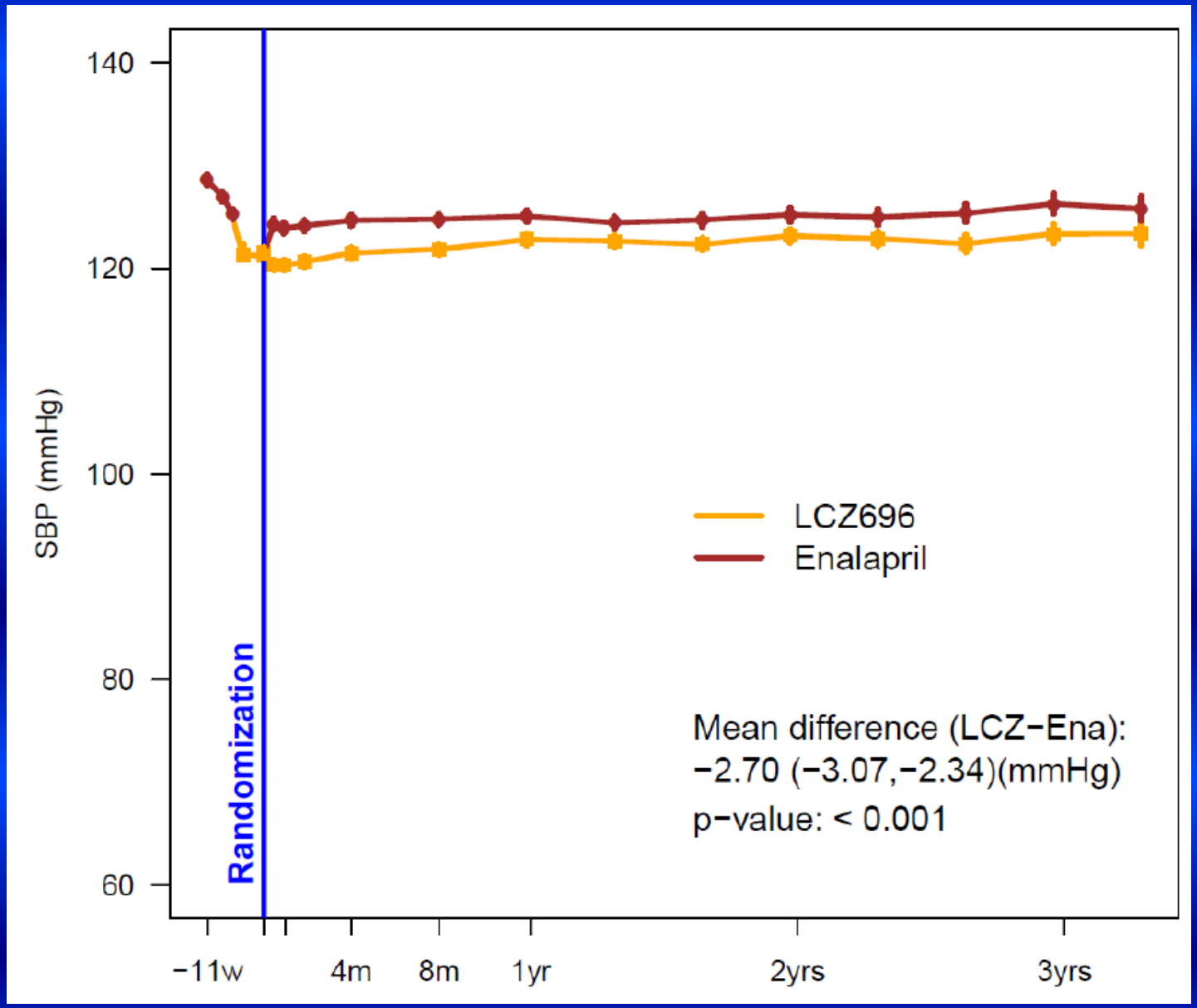
Event	LCZ696 (N=4187)	Enalapril (N=4212)	P Value
	no. (%)		
Hypotension			
Symptomatic	588 (14.0)	388 (9.2)	<0.001
Symptomatic with systolic blood pressure <90 mm Hg	112 (2.7)	59 (1.4)	<0.001
Elevated serum creatinine			
≥2.5 mg/dl	139 (3.3)	188 (4.5)	0.007
≥3.0 mg/dl	63 (1.5)	83 (2.0)	0.10
Elevated serum potassium			
>5.5 mmol/liter	674 (16.1)	727 (17.3)	0.15
>6.0 mmol/liter	181 (4.3)	236 (5.6)	0.007
Cough	474 (11.3)	601 (14.3)	<0.001
Angioedema†			
No treatment or use of antihistamines only	10 (0.2)	5 (0.1)	0.19
Use of catecholamines or glucocorticoids without hospitalization	6 (0.1)	4 (0.1)	0.52
Hospitalization without airway compromise	3 (0.1)	1 (<0.1)	0.31
Airway compromise	0	0	—

+ hipotensión

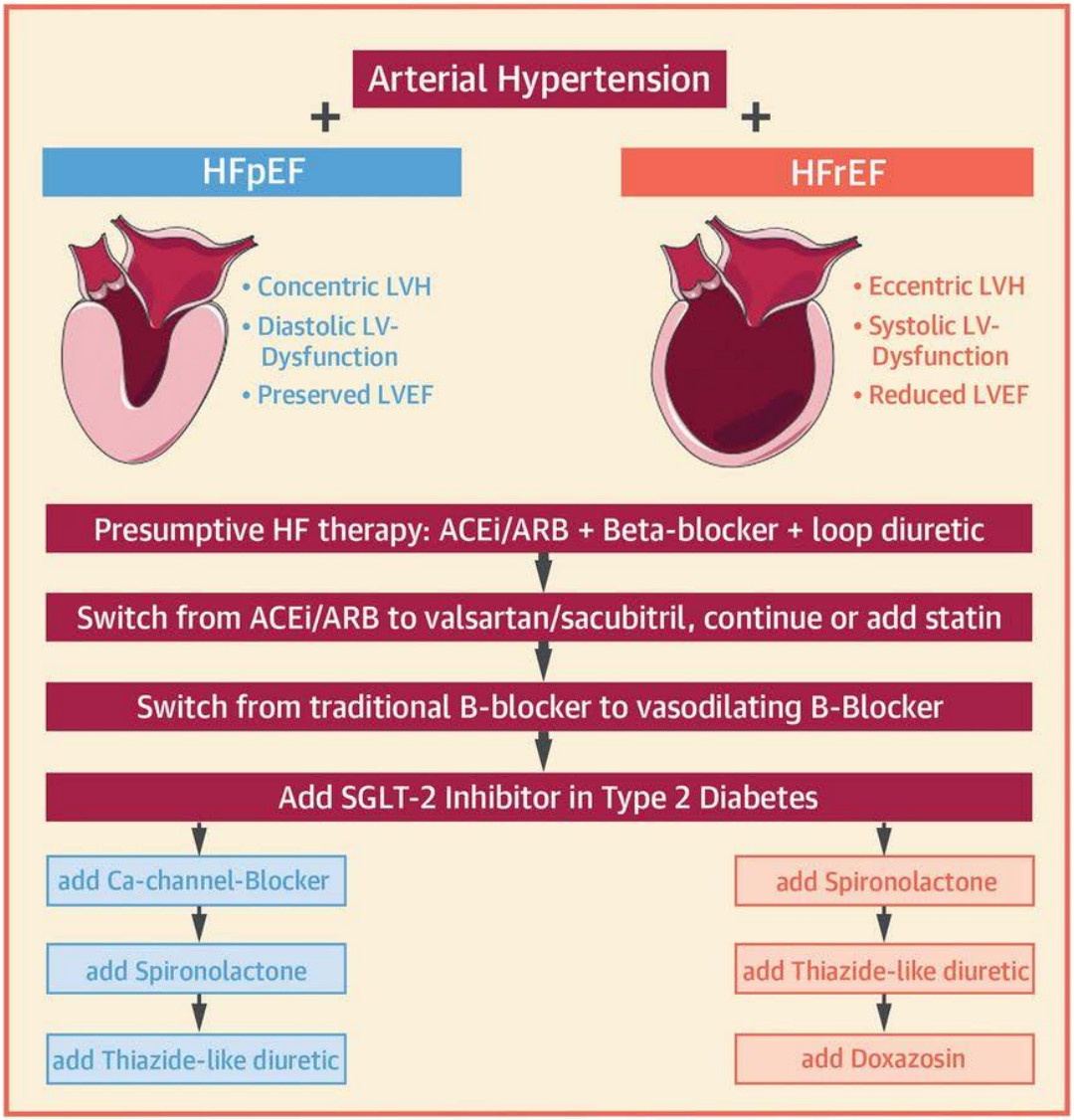
- Deterioro renal

- Hiper K

Sin aumentar angioedema


SBP (mmHg)
140
120
100
80
60
Randomization
−11w
4m
8m
1yr
2yrs
3yrs
LCZ696
Enalapril
Mean difference (LCZ−Ena):
−2.70 (−3.07,−2.34)(mmHg)
p−value: < 0.001

CENTRAL ILLUSTRATION: Suggested Empirical Antihypertensive Strategy in HF Patients With Persisting Hypertension

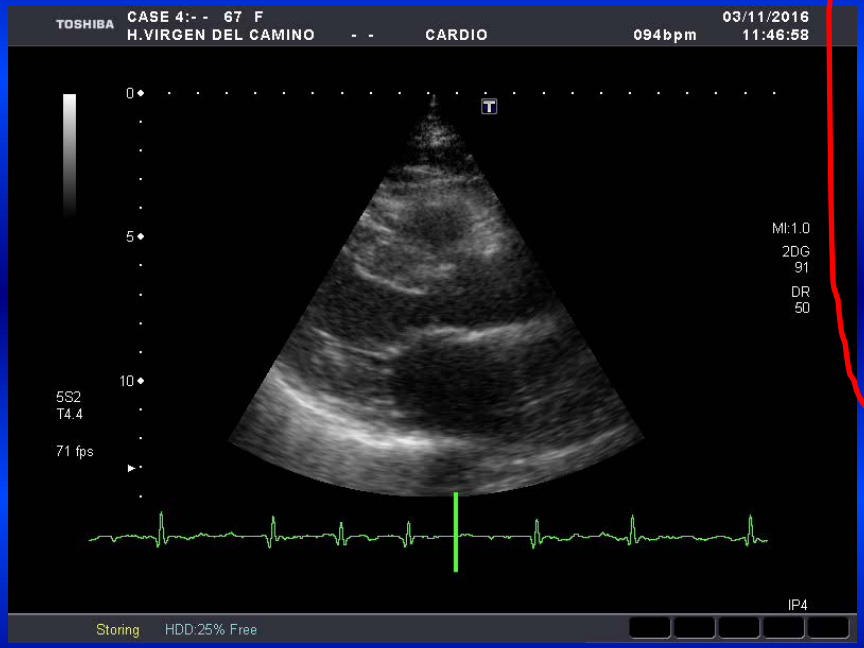


Messerli, F.H. et al. J Am Coll Cardiol HF. 2017;5(8):543-51.

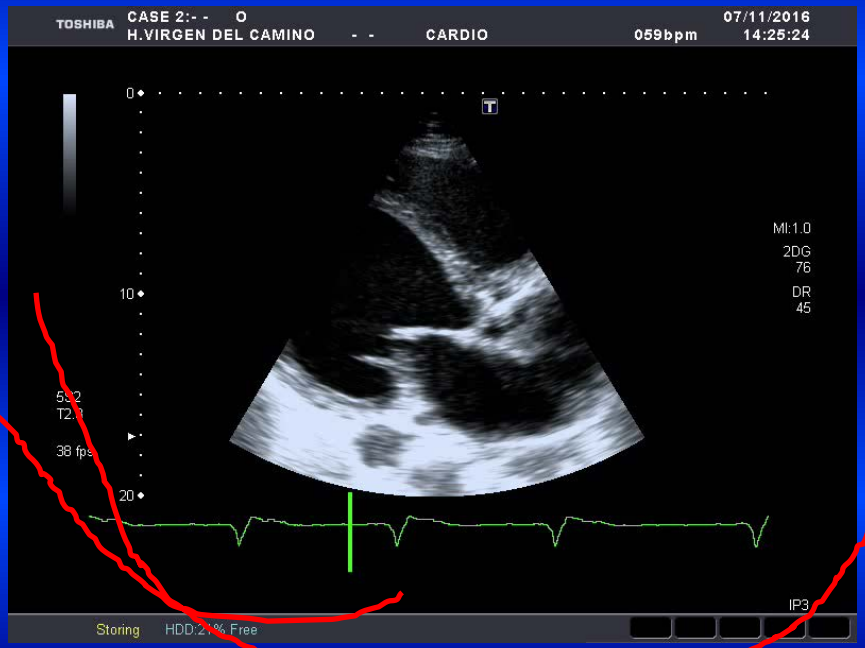
MANEJO PRÁCTICO

¿Cuál es el paciente?

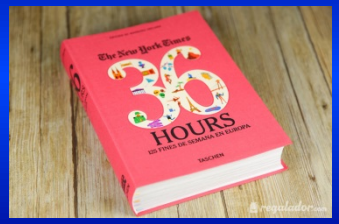
FE PRESERVADA



FE DEPRIMIDA



IECA



2-4 semanas

2-4 semanas


XXXIII
Congreso Sociedad Andaluza
de Medicina Interna (SADEMI)
8, 9 y 10 de Junio de 2017
Hospital Universitario Reina Sofía. Córdoba


Sademi
Sociedad Andaluza de Medicina Interna
XXXIV Congreso Sociedad Andaluza
de Medicina Interna (SADEMI)
V Encuentro de Enfermería de
Medicina Interna de Andalucía
14, 15 y 16 de
Junio 2018
PARANINFO DE
LA UNIVERSIDAD
DE GRANADA

1

2

3

European Journal of Heart Failure (2017)

EUROPEAN SOCIETY OF CARDIOLOGY®

PARADIGMHF

Rationale for and design of the TRUE-AHF trial: the effects of ularitide on the short-term clinical course and long-term mortality of patients with acute heart failure

Serelaxin in addition to standard therapy in acute heart failure: rationale and design of the RELAX-AHF-2 study

Eur Heart J. 2017 Aug 7;38(30):2364-2373. doi: 10.1093/eurheartj/ehx196.

Biased ligand of the angiotensin II type 1 receptor in patients with acute heart failure: a randomized, double-blind, placebo-controlled, phase IIB, dose ranging trial (BLAST-AHF).

Pang PS[1], Butler J[2], Collins SP[3], Cotter G[4], Davison BA[4], Ezekowitz JA[5], Filippatos G[6], Levy PD[7], Metra M[8], Ponikowski P[9], Teerlink JR[10], Voors AA[11], Bharucha D[12], Goin K[13], Soergel DG[13], Felker GM[14].

ORIGINAL ARTICLE

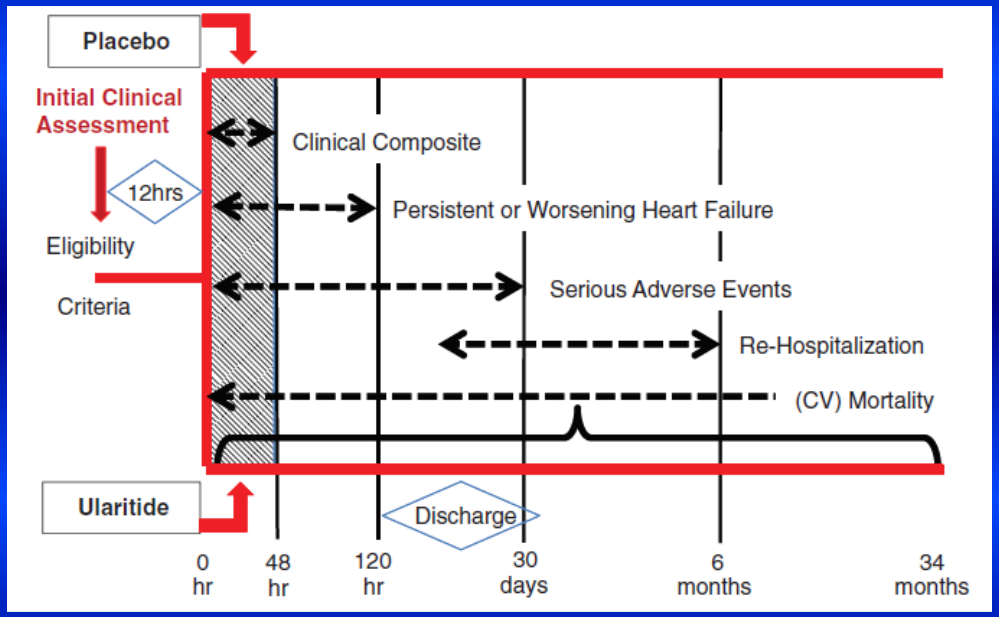
The NEW ENGLAND JOURNAL of MEDICINE

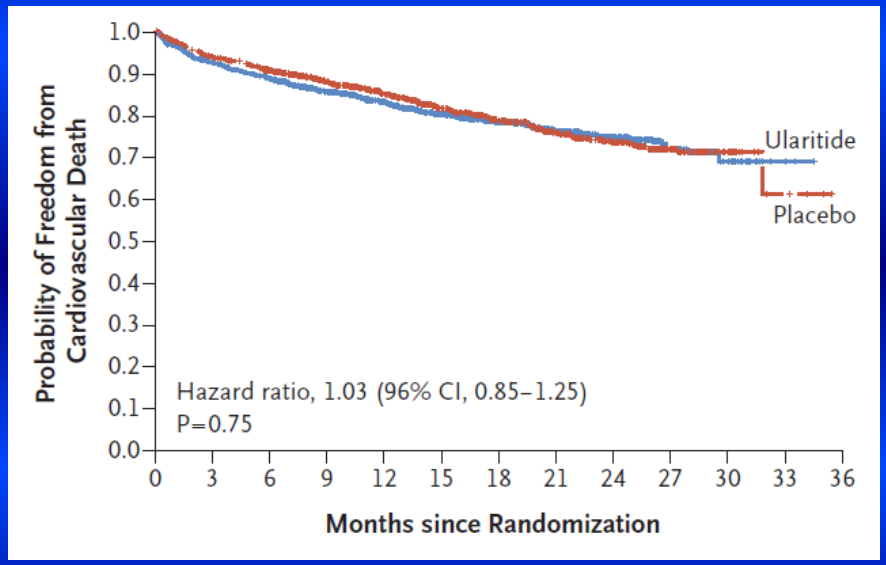
Effect of Ularitide on Cardiovascular Mortality in Acute Heart Failure

MAY 18, 2017

M. Packer, C. O'Connor, J.J.V. McMurray, J. Wittes, W.T. Abraham, S.D. Anker,

65% FEVI REDUCIDA





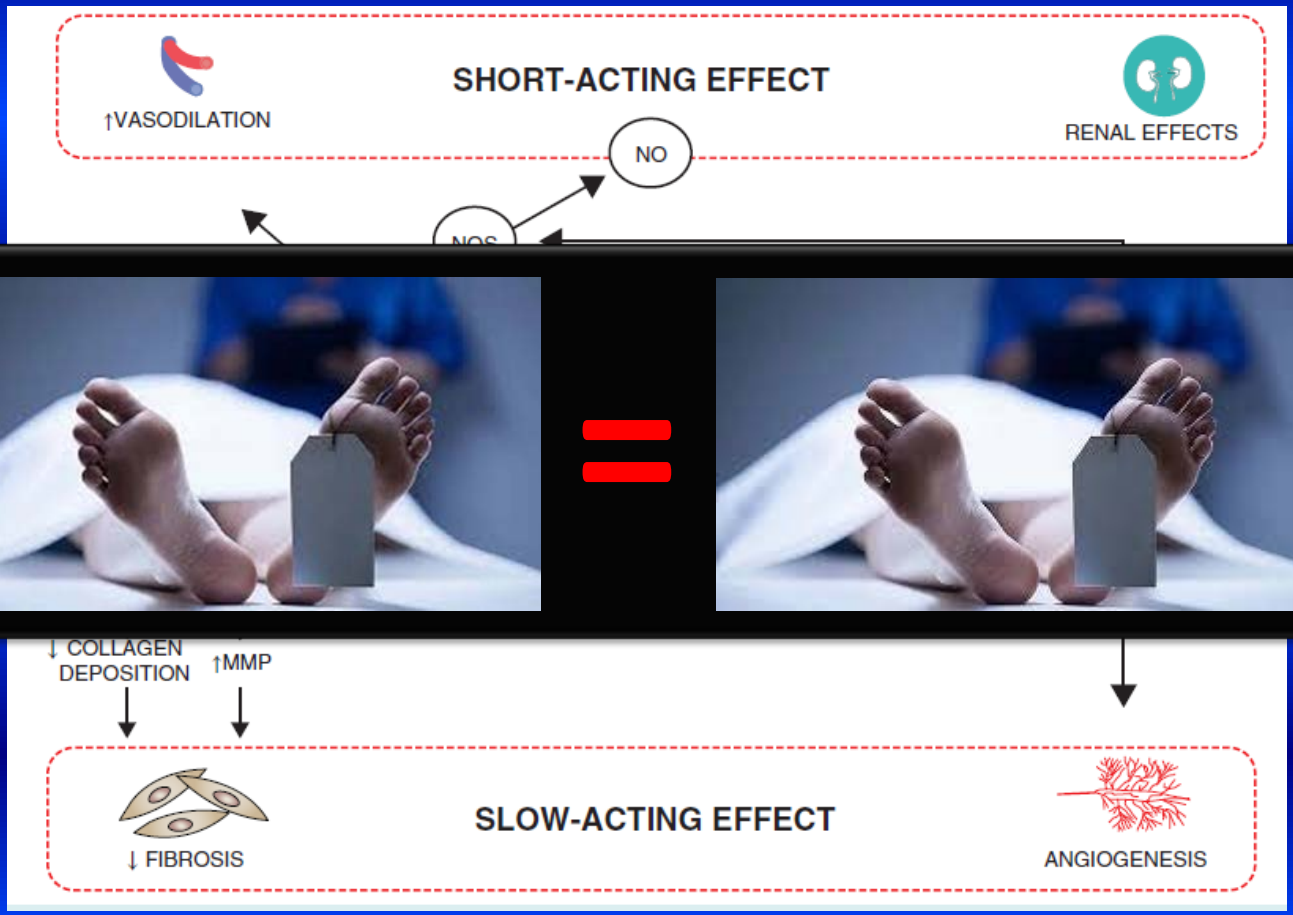
CONCLUSIONS

In patients with acute heart failure, ularitide exerted favorable physiological effects (without affecting cardiac troponin levels), but short-term treatment did not affect a clinical composite end point or reduce long-term cardiovascular mortality.

European Journal of Heart Failure (2017) **19**, 800–809
doi:10.1002/ejhf.830

TRIAL DESIGN

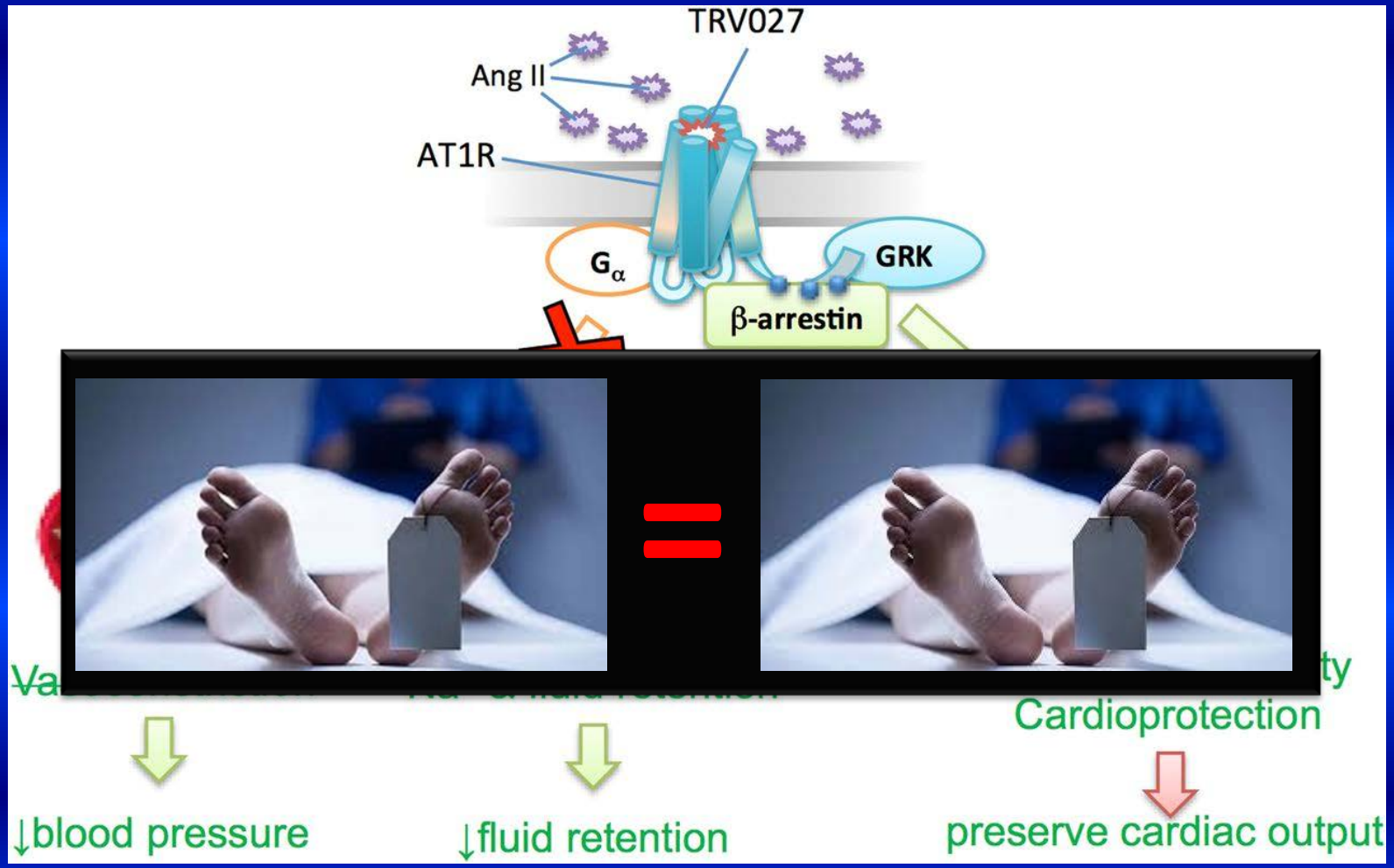
Serelaxin in addition to standard therapy in acute heart failure: rationale and design of the RELAX-AHF-2 study



Eur Heart J. 2017 Aug 7;38(30):2364-2373. doi: 10.1093/eurheartj/ehx196.

Biased ligand of the angiotensin II type 1 receptor in patients with acute heart failure: a randomized, double-blind, placebo-controlled, phase IIB, dose ranging trial (BLAST-AHF).

Pang PS[1], Butler J[2], Collins SP[3], Cotter G[4], Davison BA[4], Ezekowitz JA[5], Filippatos G[6], Levy PD[7], Metra M[8], Ponikowski P[9], Teerlink JR[10], Voors AA[11], Bharucha D[12], Goin K[13], Soergel DG[13], Felker GM[14].



Circulation

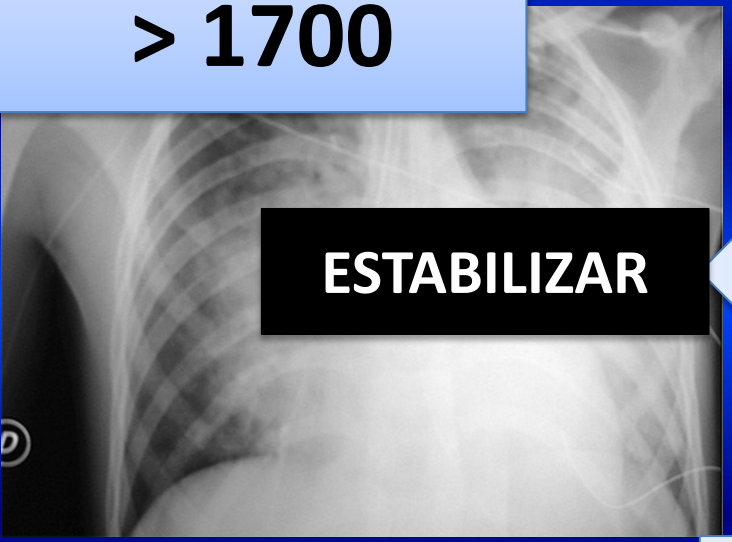
April 17, 2018

ORIGINAL RESEARCH ARTICLE

NT-proBNP (N-Terminal pro-B-Type Natriuretic Peptide)-Guided Therapy in Acute Decompensated Heart Failure

PRIMA II Randomized Controlled Trial (Can NT-ProBNP-Guided Therapy During Hospital Admission for Acute Decompensated Heart Failure Reduce Mortality and Readmissions?)

NT- Pro BNP > 1700



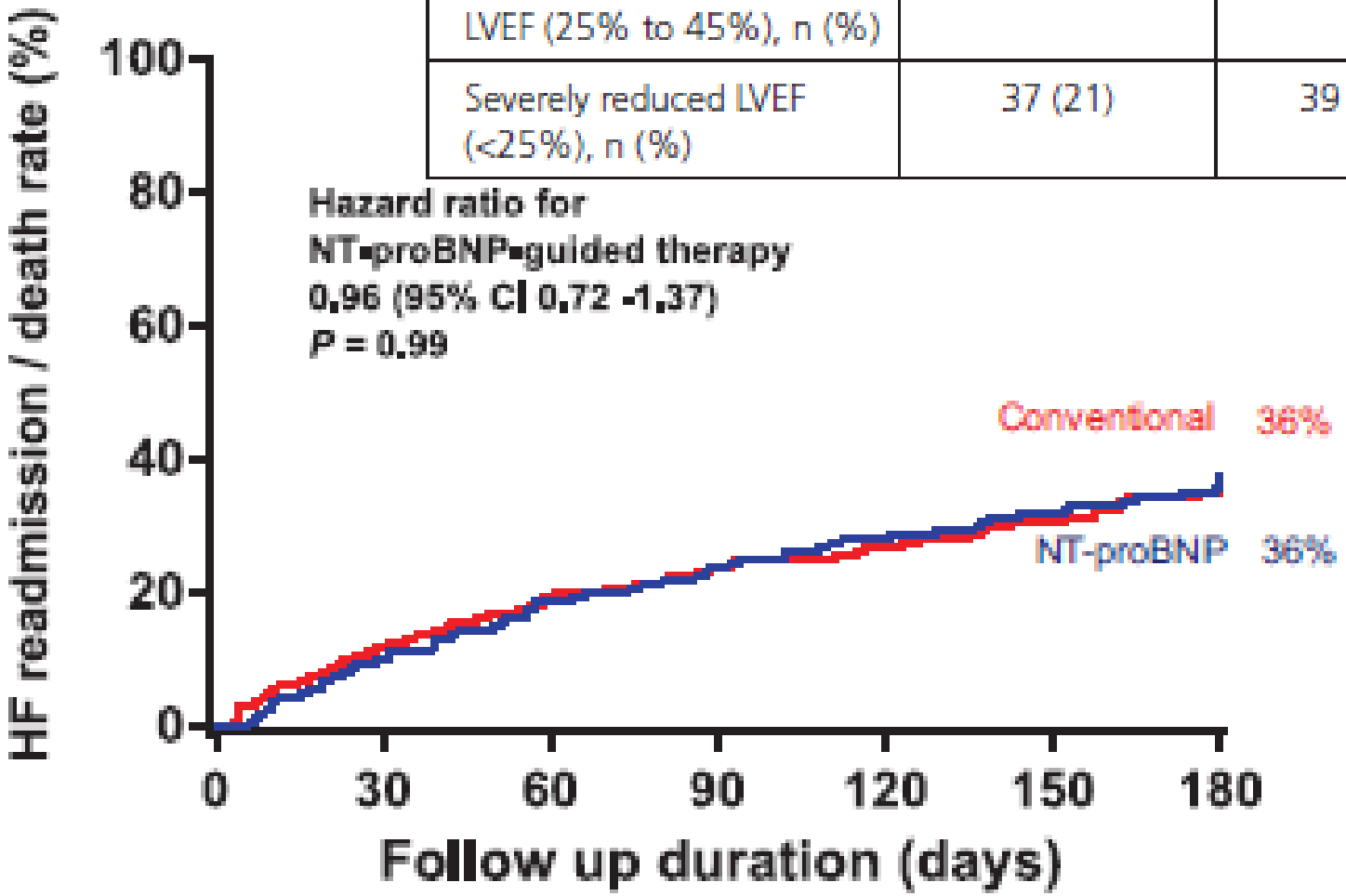
ESTABILIZAR

REDUCCIÓN NT-PRO BNP > 30%

MORTALIDAD +/- MORTALIDAD 180 DÍAS

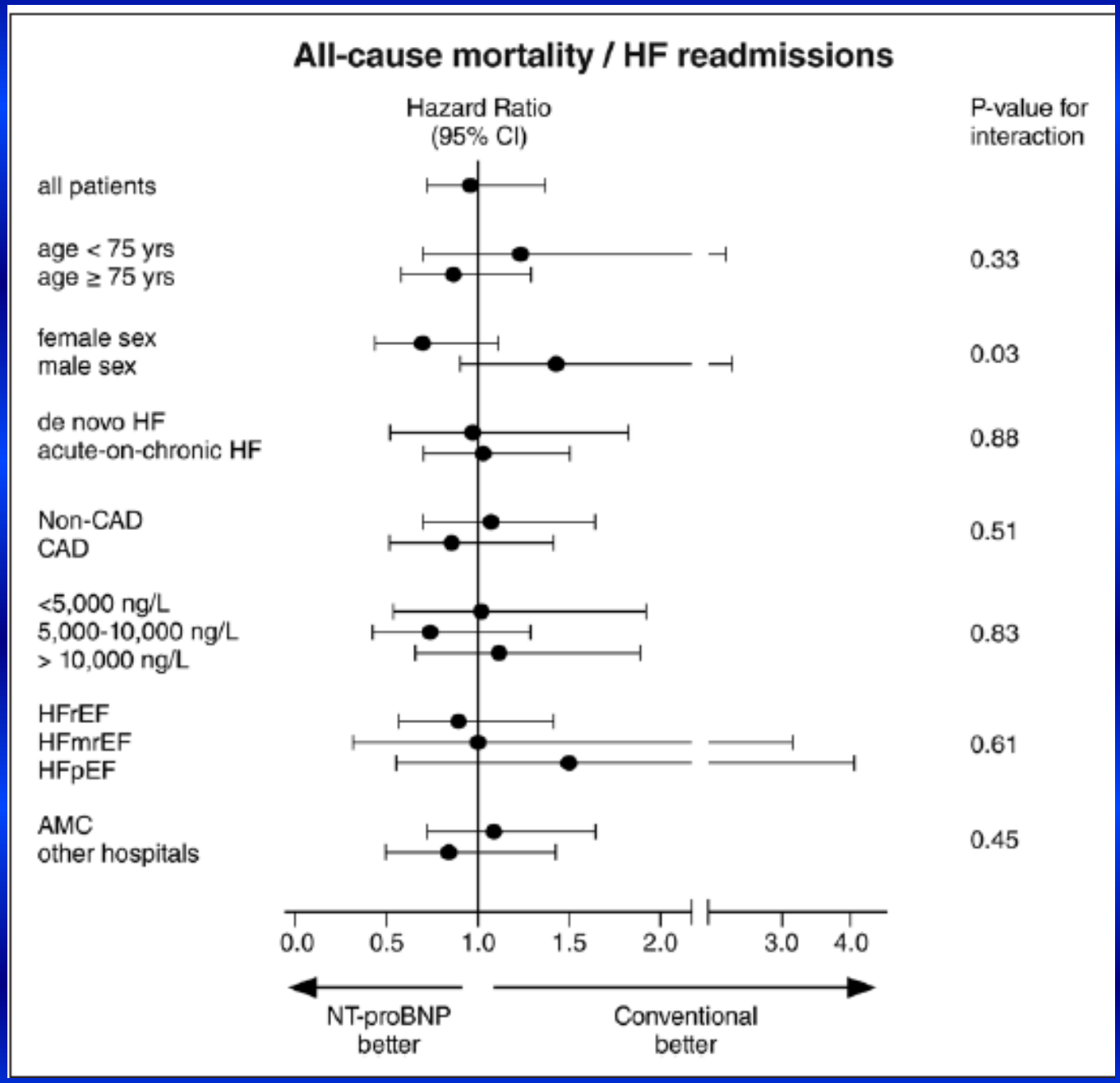
CONVENCIONAL

Preserved LVEF (>45%), n (%)	47 (27)	49 (30)
Mild-moderate reduced LVEF (25% to 45%), n (%)	89 (51)	78 (47)
Severely reduced LVEF (<25%), n (%)	37 (21)	39 (24)



No. at Risk

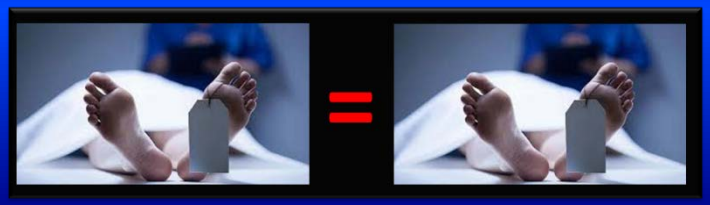
NT-proBNP	201	182	166	156	145	138	130
Conventional	203	181	166	156	149	143	132


All-cause mortality / HF readmissions
Hazard Ratio
(95% CI)
P-value for
interaction
all patients
age < 75 yrs
age ≥ 75 yrs
0.33
female sex
male sex
0.03
de novo HF
acute-on-chronic HF
0.88
Non-CAD
CAD
0.51
<5,000 ng/L
5,000-10,000 ng/L
> 10,000 ng/L
0.83
HFrEF
HFmrEF
HFpEF
0.61
AMC
other hospitals
0.45
0.0
0.5
1.0
1.5
2.0
3.0
4.0
NT-proBNP
better
Conventional
better

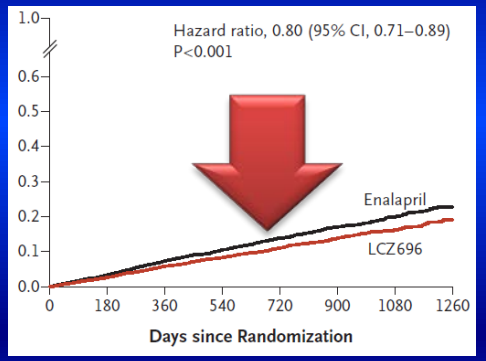
1

2

3



PARADIGMHF



Rationale for and design of the TRUE-AHF trial: the effects of ularitide on the short-term clinical course and long-term mortality of patients with acute heart failure

Serelaxin in addition to standard therapy in acute heart failure: rationale and design of the RELAX-AHF-2 study

Eur Heart J. 2017 Aug 7;38(30):2364-2373. doi: 10.1093/eurheartj/ehx196.

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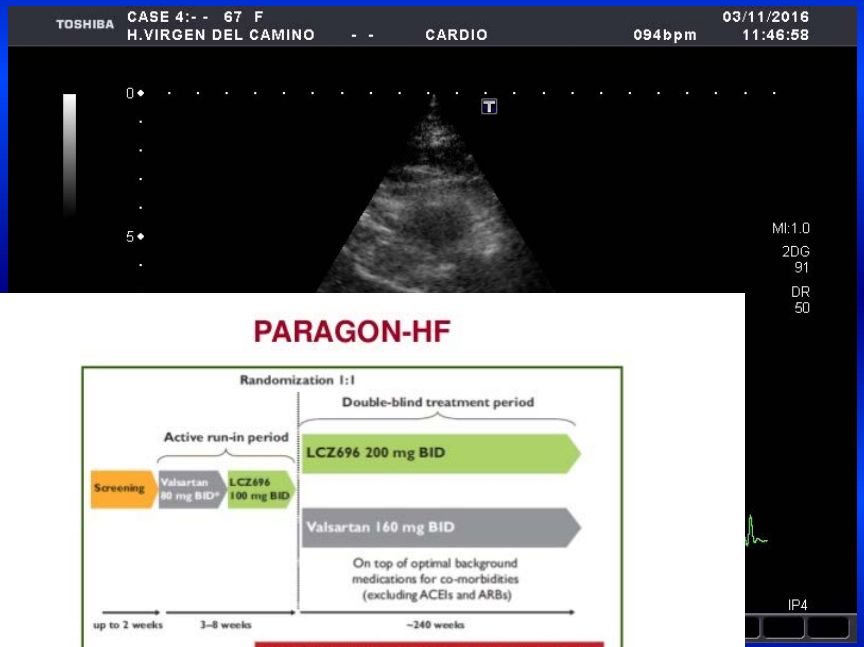
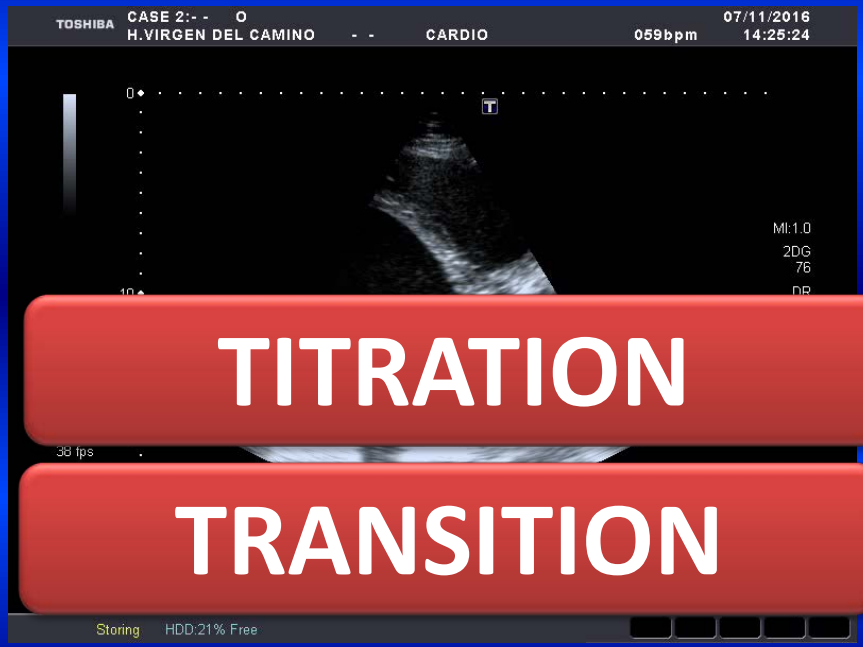
14 internistas

120 camas MI

SACUBITRILO/VALSARTAN





PARAGON-HF

Primary objective

- The primary objective of this trial is to compare LCZ696 to valsartan in reducing the rate of the composite endpoint of CV death and total (first and recurrent) HF hospitalizations, in HF patients (NYHA Class II-IV) with preserved EF (left ventricular ejection fraction [LVEF] ≥45%).

TITRATION

TRANSITION

PARADISE-MI

European Journal of Heart Failure (2016)
doi:10.1002/ejhf.548

Initiating sacubitril/valsartan (LCZ696) in heart failure: results of TITRATION, a double-blind, randomized comparison of tw uptitration regimens

NIH U.S. National Library of Medicine

ClinicalTrials.gov

Find Studies ▾ About Studies ▾ Submit Studies ▾ Resources

TRANSITION -- IC

Hom ☐ Save this study

Comparison of Pre- and Post-discharge Initiation of LCZ696 Therapy in HFrEF Patients Decompensation Event (TRANSITION)

NIH U.S. National Library of Medicine

ClinicalTrials.gov

Find Studies ▾ About Studies ▾ Submit Studies ▾ Resources ▾ About Site ▾

PARADISE--MI

Hor ☐ Save this study Saved Studies (0)

Prospective ARNI vs ACE Inhibitor Trial to Determine Superiority in Reducing Heart Failure Events After MI (PARADISE-MI)

80

40%

60%

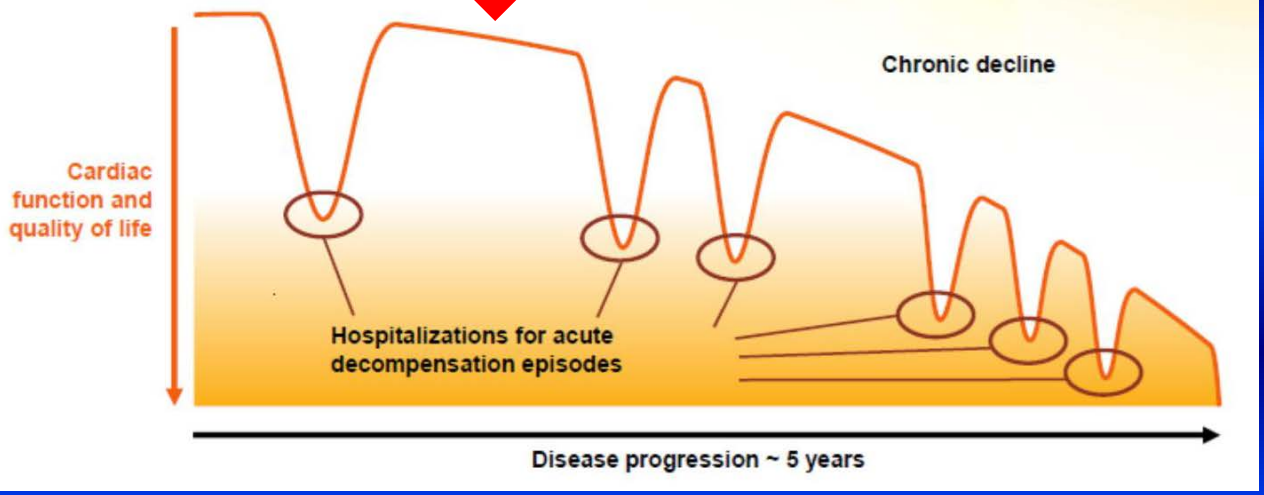
The NEW ENGLAND JOURNAL of MEDICINE
ESTABLISHED IN 1812 SEPTEMBER 11, 2014 VOL. 371 NO. 11

Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure

VARÓN
63 AÑOS

FE 29%
NYHA II
TAS:122 mmHg
Fc: 72 lpm
NT pro-BNP:1600 pg/ml

78 años



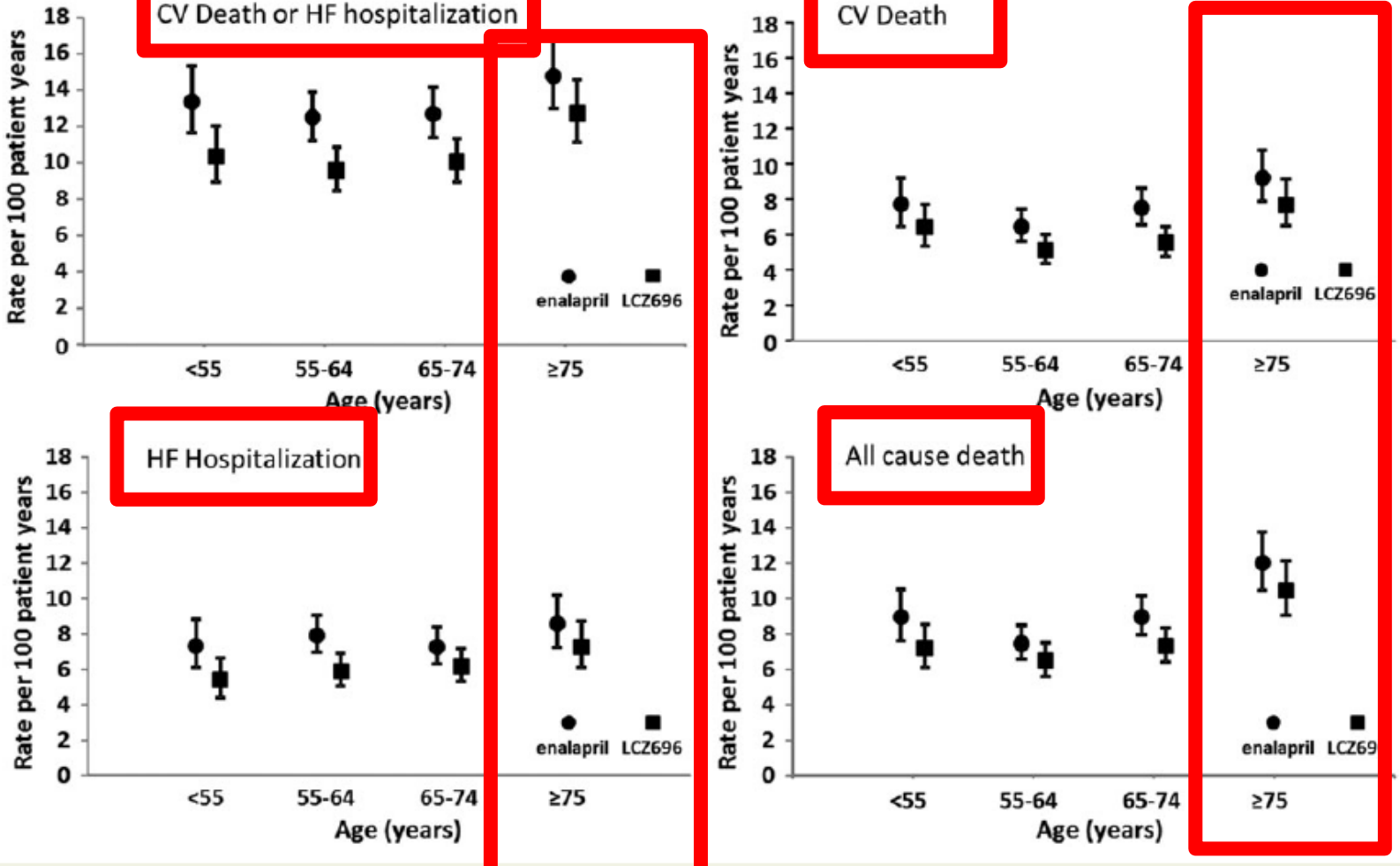
European Heart Journal (2015) **36**, 2576–2584
doi:10.1093/eurheartj/ehv330

Efficacy and safety of LCZ696 (sacubitril-valsartan) according to age: insights from PARADIGM-HF

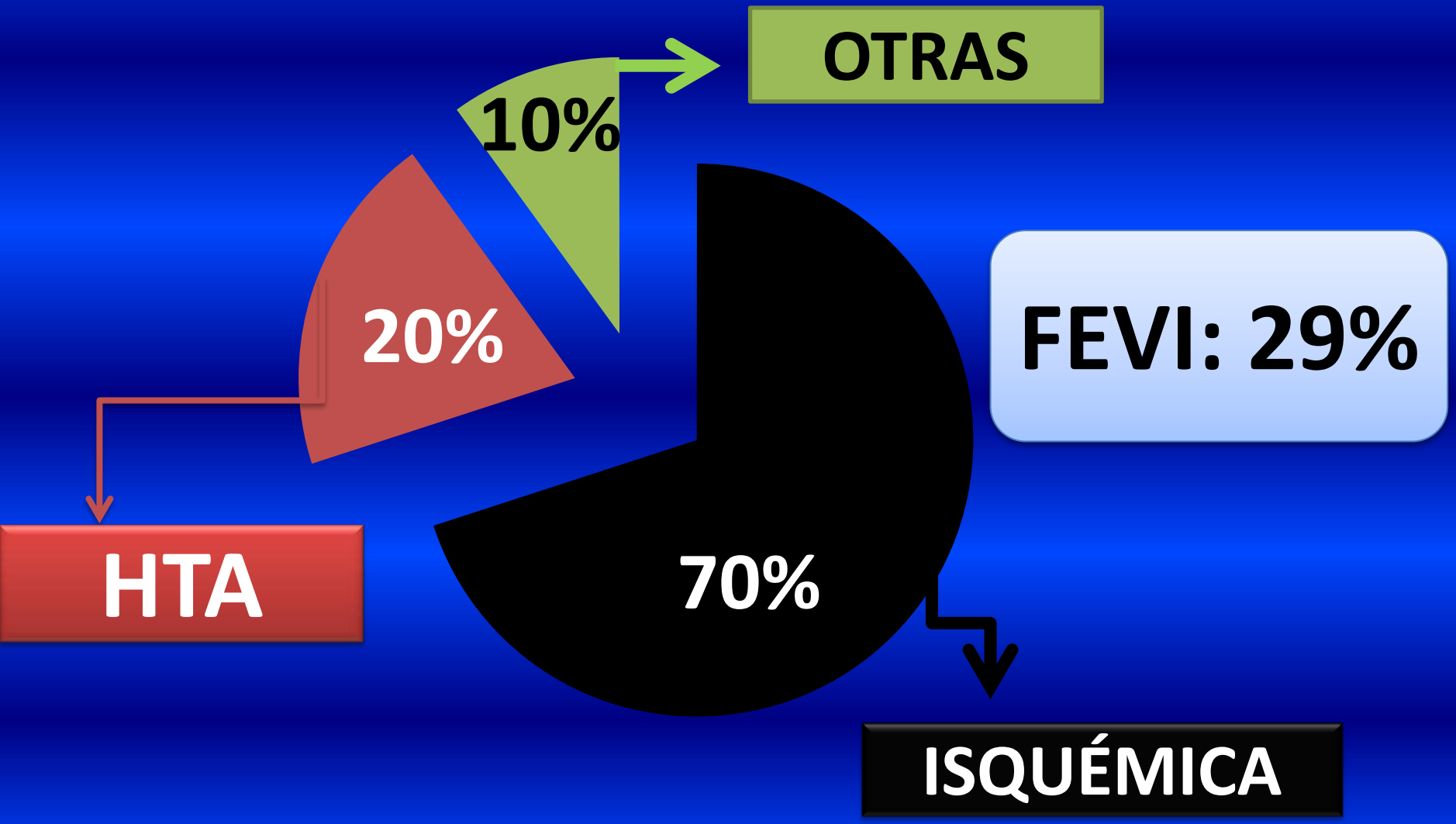
20%

65–74 years (*n* = 2557)

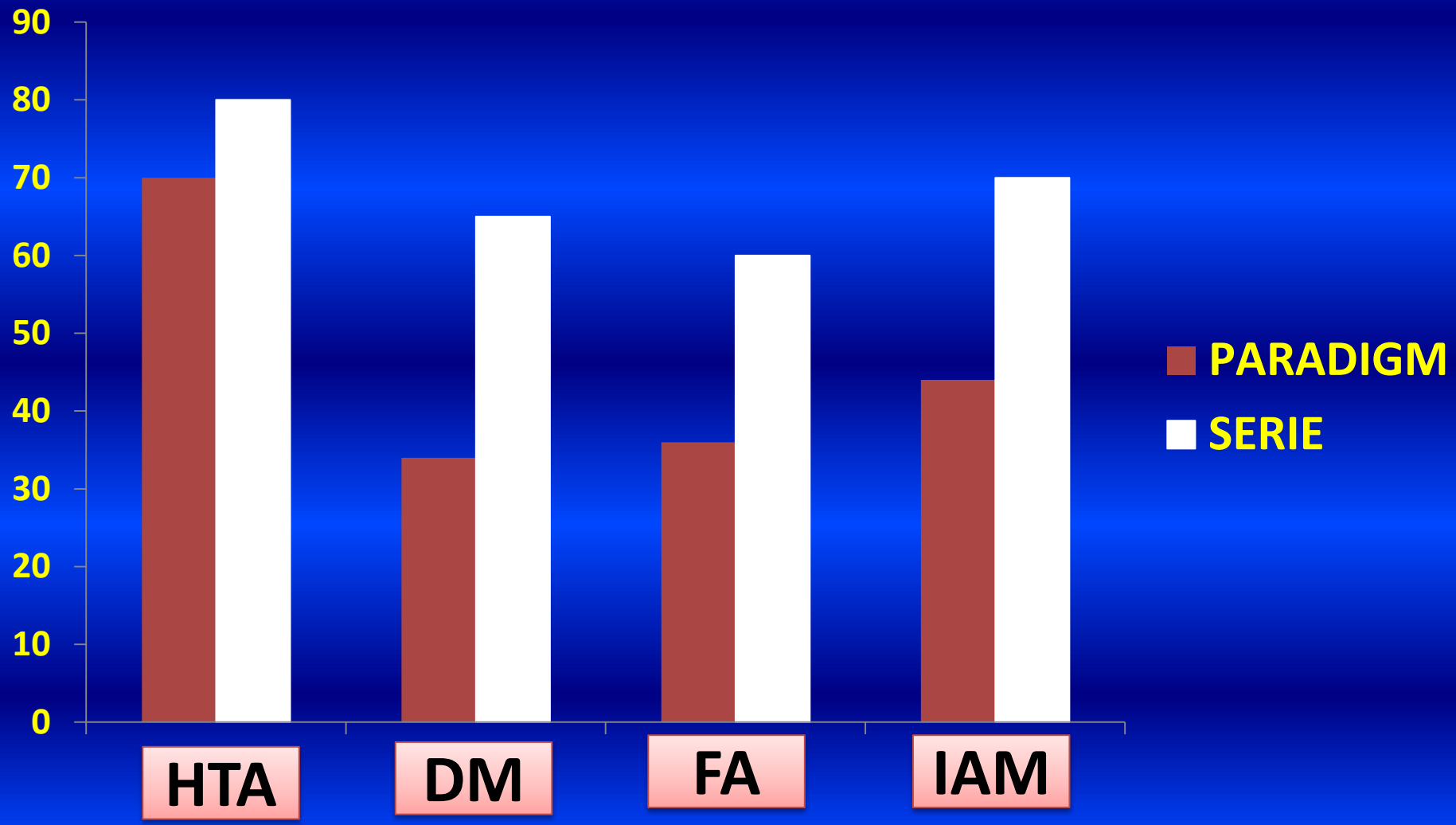
≥75 years (*n* = 1563)

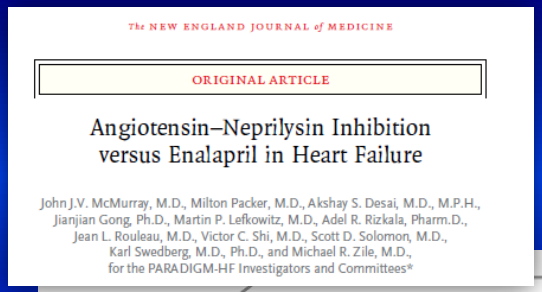


ETIOLOGÍA



COMORBILIDADES



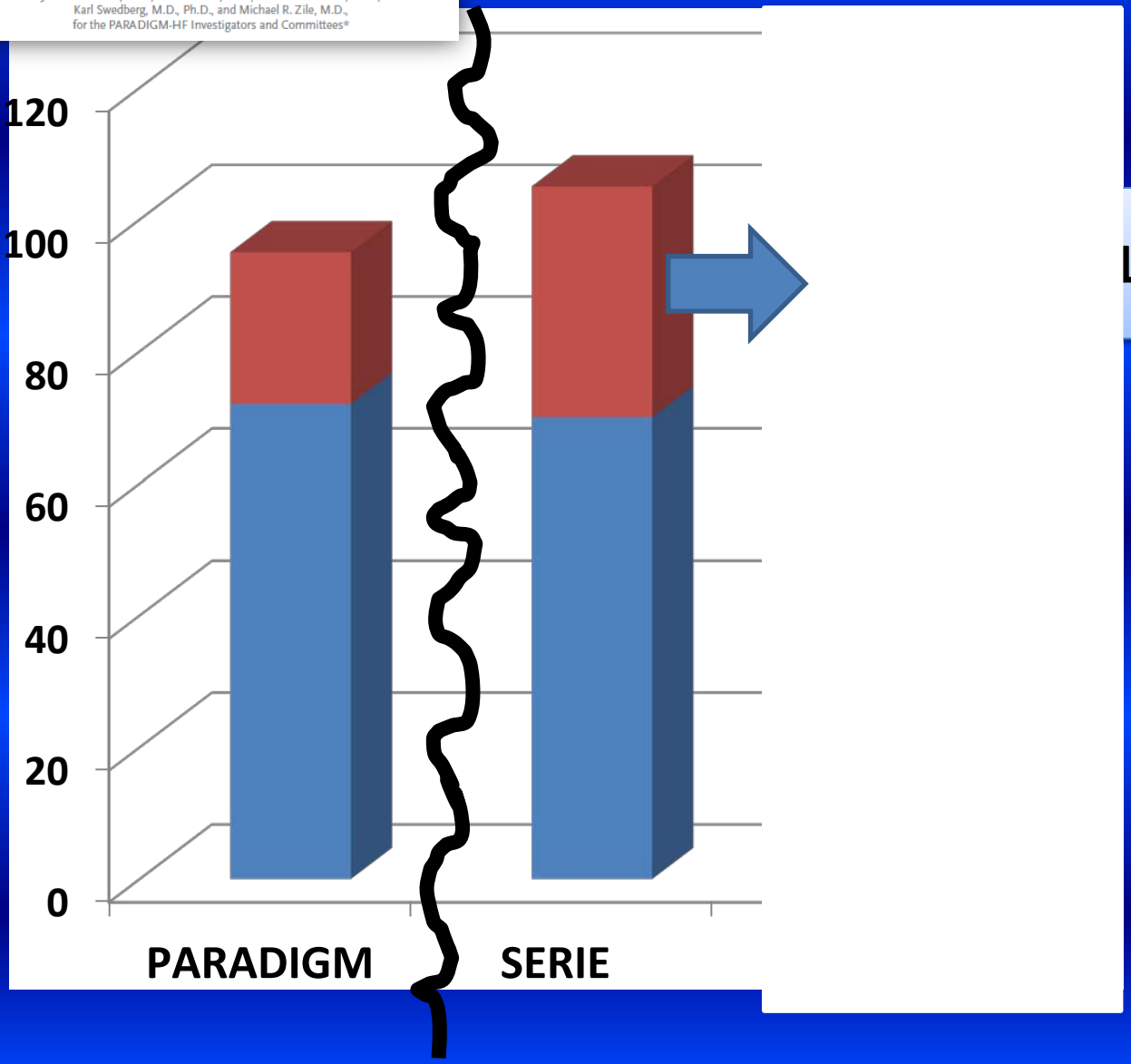

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure

John J.V. McMurray, M.D., Milton Packer, M.D., Akshay S. Desai, M.D., M.P.H., Jianjian Gong, Ph.D., Martin P. Lefkowitz, M.D., Adel R. Rizkala, Pharm.D., Jean L. Rouleau, M.D., Victor C. Shi, M.D., Scott D. Solomon, M.D., Karl Swedberg, M.D., Ph.D., and Michael R. Zile, M.D., for the PARADIGM-HF Investigators and Committees*

CLASE FUNCIONAL



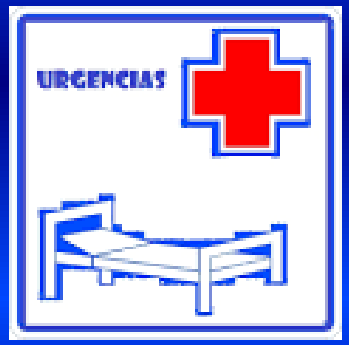
10% PASA A CLASE II

NYHA III

NYHA II

DOSIS DE FUROSEMIDA

60 mg



80 mg

80 mg

Sac/Val 24/26

80 mg

3 días iv

2 días vo

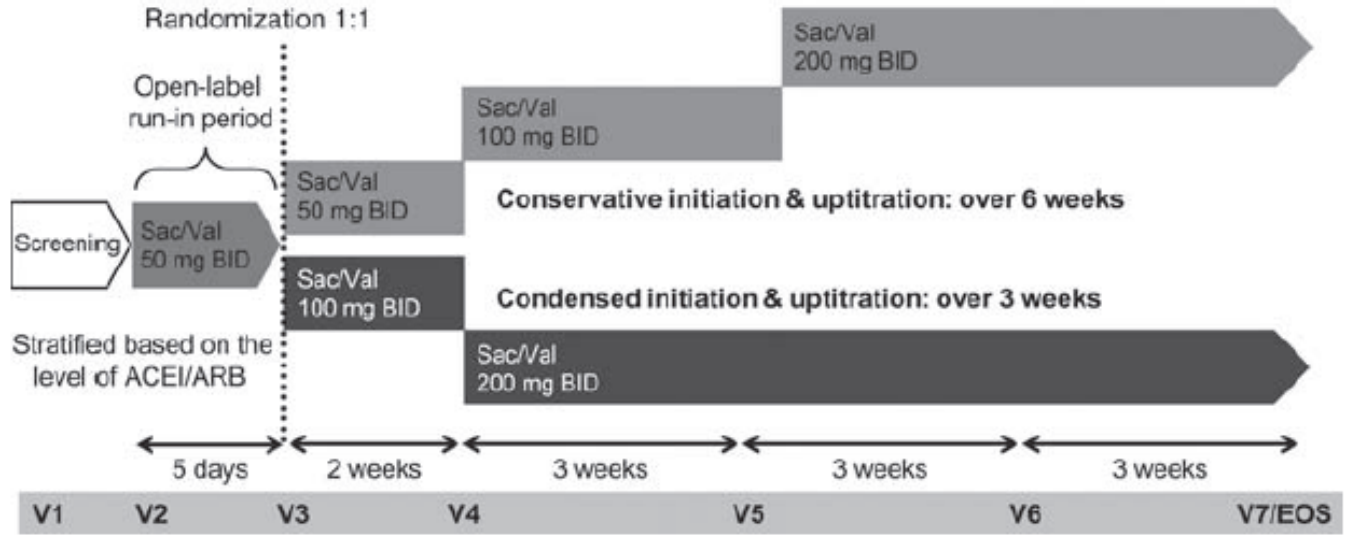
2 días vo

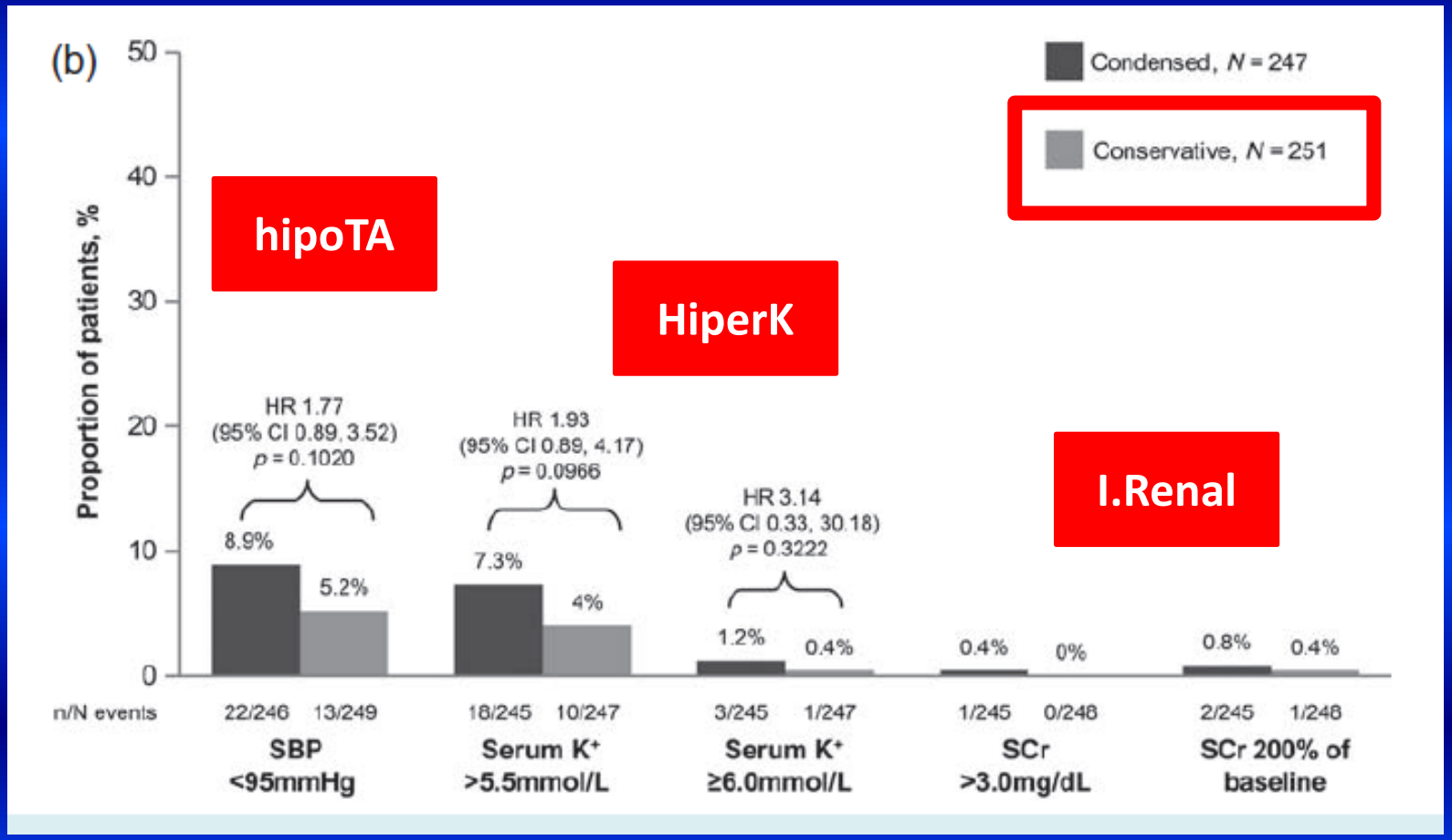
7 DÍAS

European Journal of Heart Failure (2016) 18, 1193–1202
doi:10.1002/ejhf.548

RESEARCH ARTICLE

Initiating sacubitril/valsartan (LCZ696) in heart failure: results of TITRATION, a double-blind, randomized comparison of two uptitration regimens



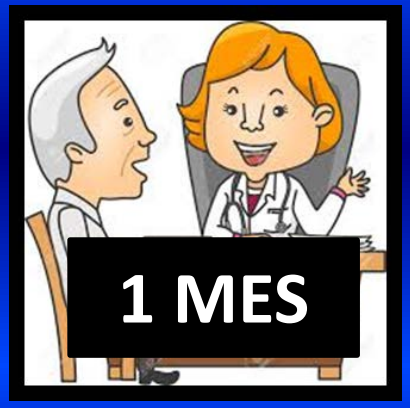


MENOS PROBABILIDAD DE PROBLEMAS

DOSIS DE FUROSEMIDA

60 mg

80 mg



60 mg

40-60 mg

24/26 mg

49/51 mg

60%

97/103 mg

40%

49/51 mg

DOSIS DE SAC/VALSARTAN

DOSIS DE FUROSEMIDA

60 mg

80 mg

60 mg

40-60 mg

24/26 mg

49/51 mg

60%

97/103 mg

TA NO LO PERMITE

FG BAJA 10-20%

PACIENTES QUE NO ALCANZAN DOSIS MÁXIMAS HIPOTENSIÓN

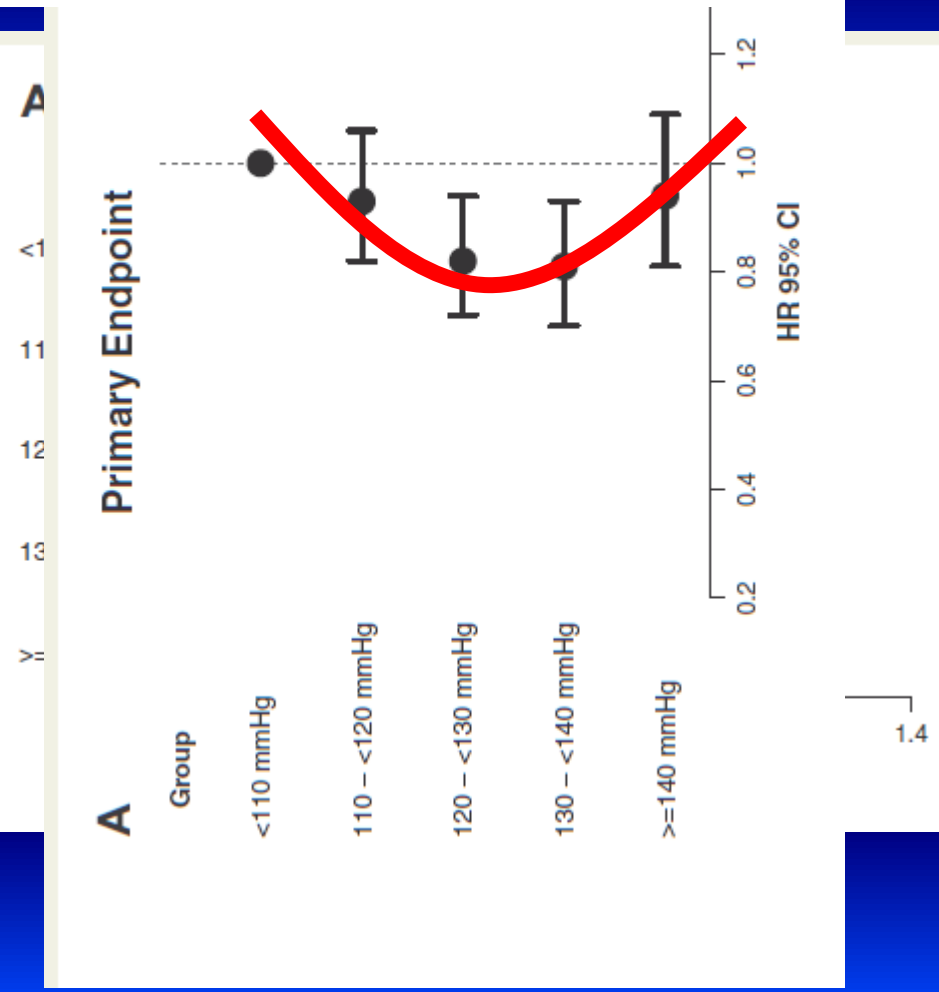
97/103 mg

49/51 mg

Systolic blood pressure, cardiovascular outcomes and efficacy and safety of sacubitril/valsartan (LCZ696) in patients with chronic heart failure and reduced ejection fraction: results from PARADIGM-HF

European Heart Journal (2017) **0**, 1–12

PAS BASAL 110 – 140 mmHg
MAYOR BENEFICIO

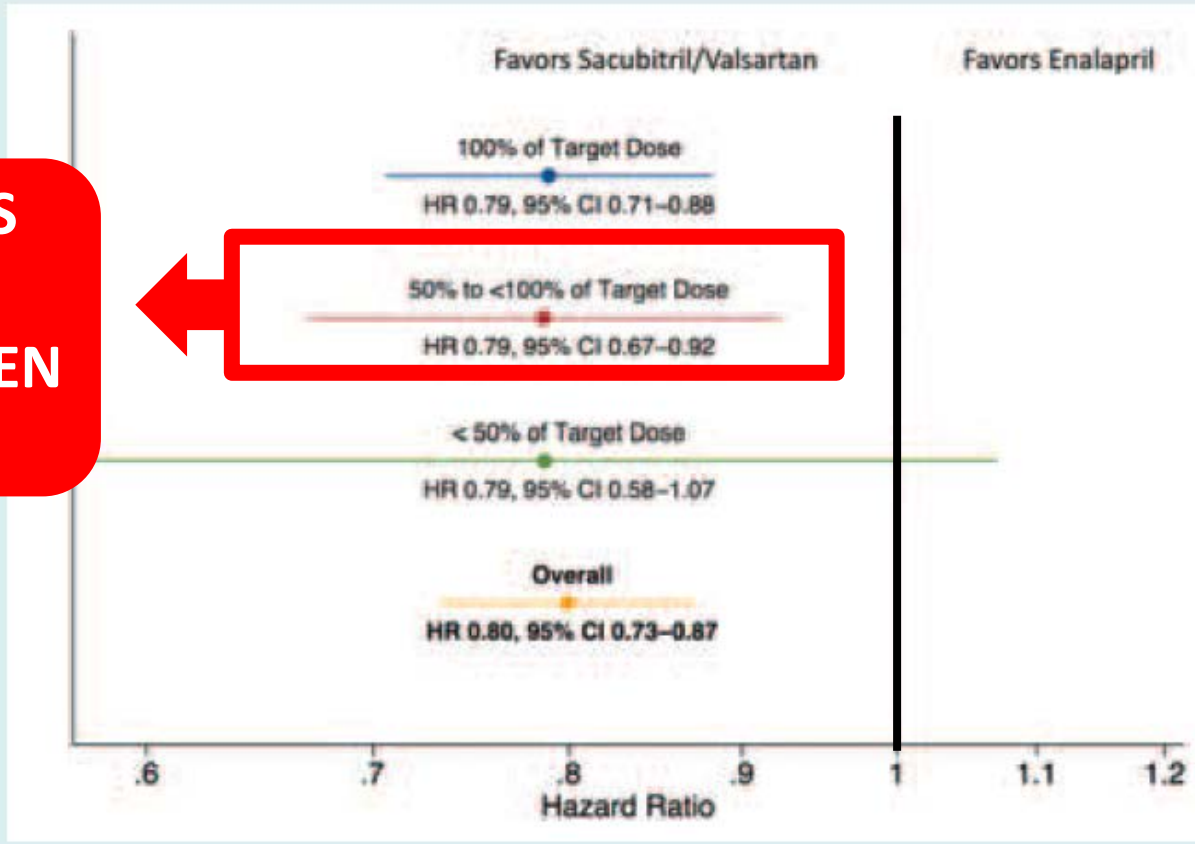


European Journal of Heart Failure (2016) 18, 1228–1234
doi:10.1002/ejhf.580

RESEARCH ARTICLE

Efficacy of sacubitril/valsartan vs. enalapril at lower than target doses in heart failure with reduced ejection fraction: the PARADIGM-HF trial

LOS PACIENTES CON DOSIS MEDIA, OBTIENEN BENEFICIO



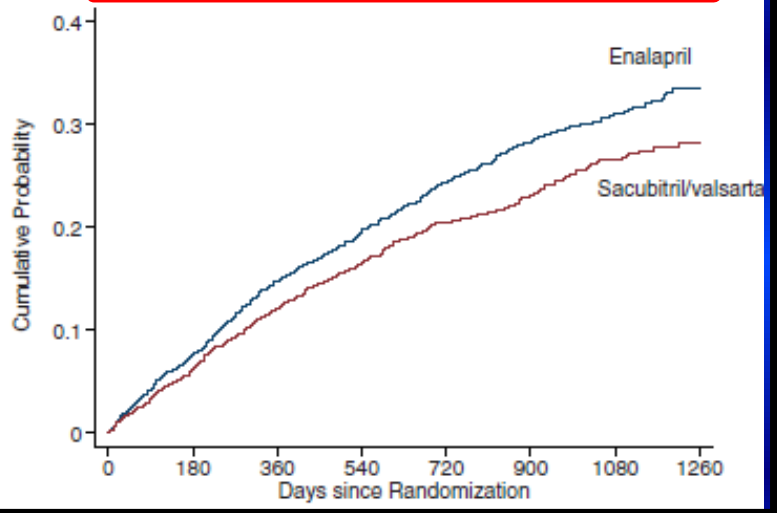
Circulation
Heart Failure

American Heart Association®

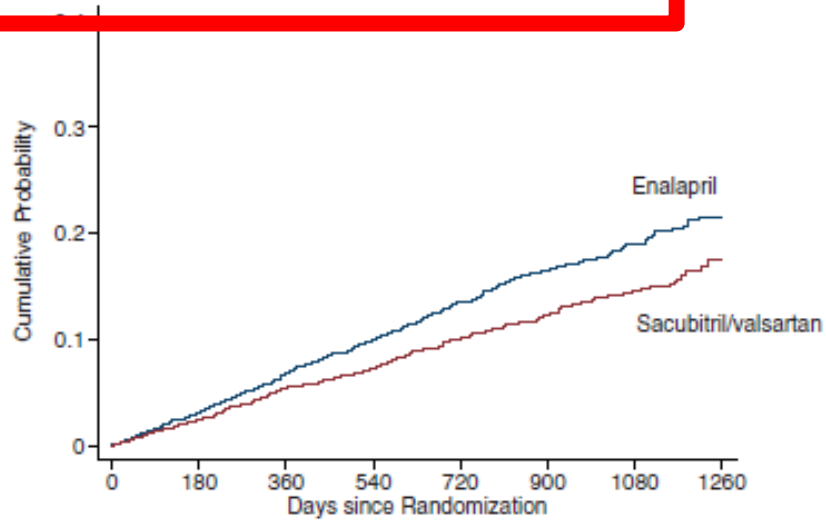
Effects of Sacubitril/Valsartan in the PARADIGM-HF Trial (Prospective Comparison of ARNI with ACEI to Determine Impact on Global Mortality and Morbidity in Heart Failure) According to Background Therapy

Naoki Okumura, Pardeep S. Jhund, Jianjian Gong, Martin P. Lefkowitz, Adel R. Rizkala, Jean L. Rouleau, Victor C. Shi, Karl Swedberg, Michael R. Zile, Scott D. Solomon, Milton Packer and John J.V. McMurray
on behalf of the PARADIGM-HF Investigators and Committees*

Beta-blocker dose <50% target dose



No mineralocorticoid receptor antagonist



PACIENTES QUE NO ALCANZAN DOSIS MÁXIMAS POR DISFUNCIÓN RENAL

FGe: **45-60** ml/min/1,73m2

FGe: **30-45** ml/min/1,73m2

FGe: **45-60** ml/min/1,73m2

ORIGINAL INVESTIGATION

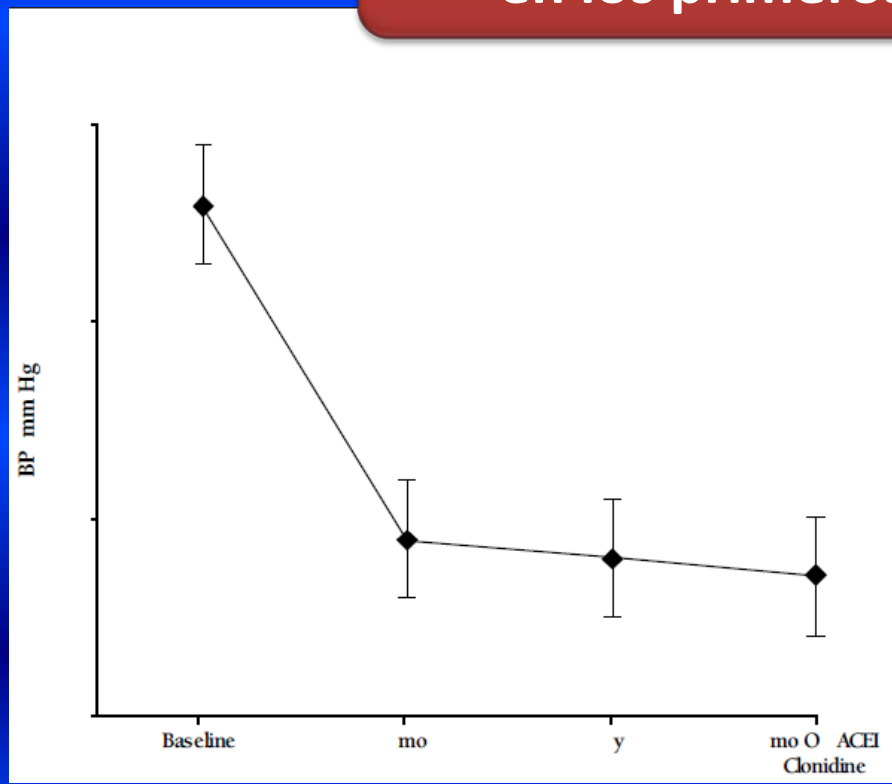
Angiotensin-Converting Enzyme Inhibitor–Associated Elevations in Serum Creatinine

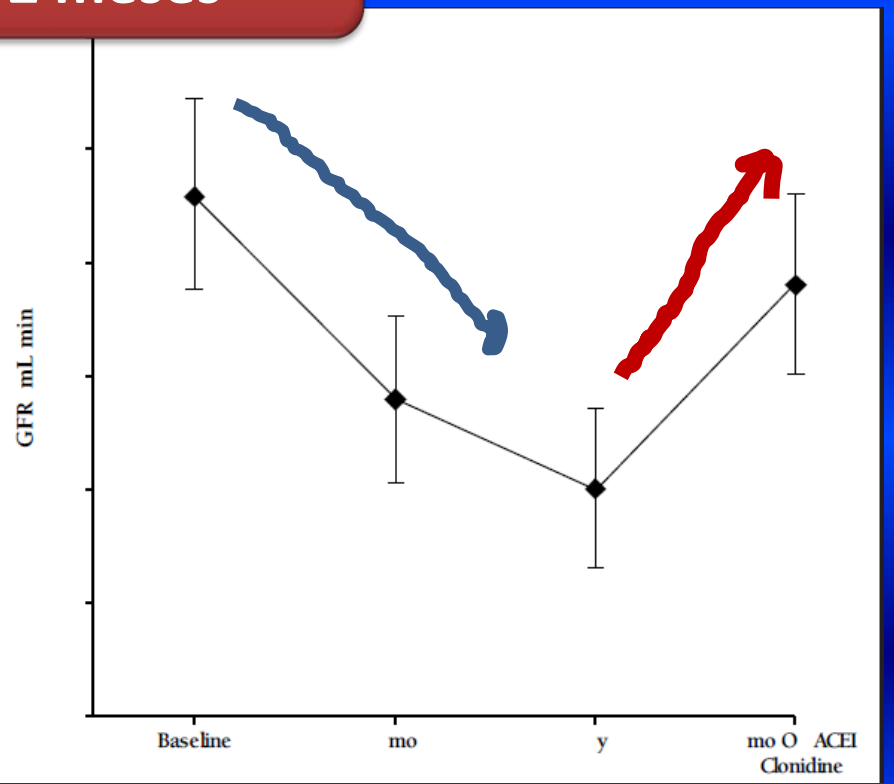
Is This a Cause for Concern?

Arch Intern Med. 2000;160:685-693

George L. Bakris, MD; Matthew R. Weir, MD

Frecuente bajada < 30% de FG en los primeros 2 meses





JACC: HEART FAILURE VOL. ■, NO. ■, 2018
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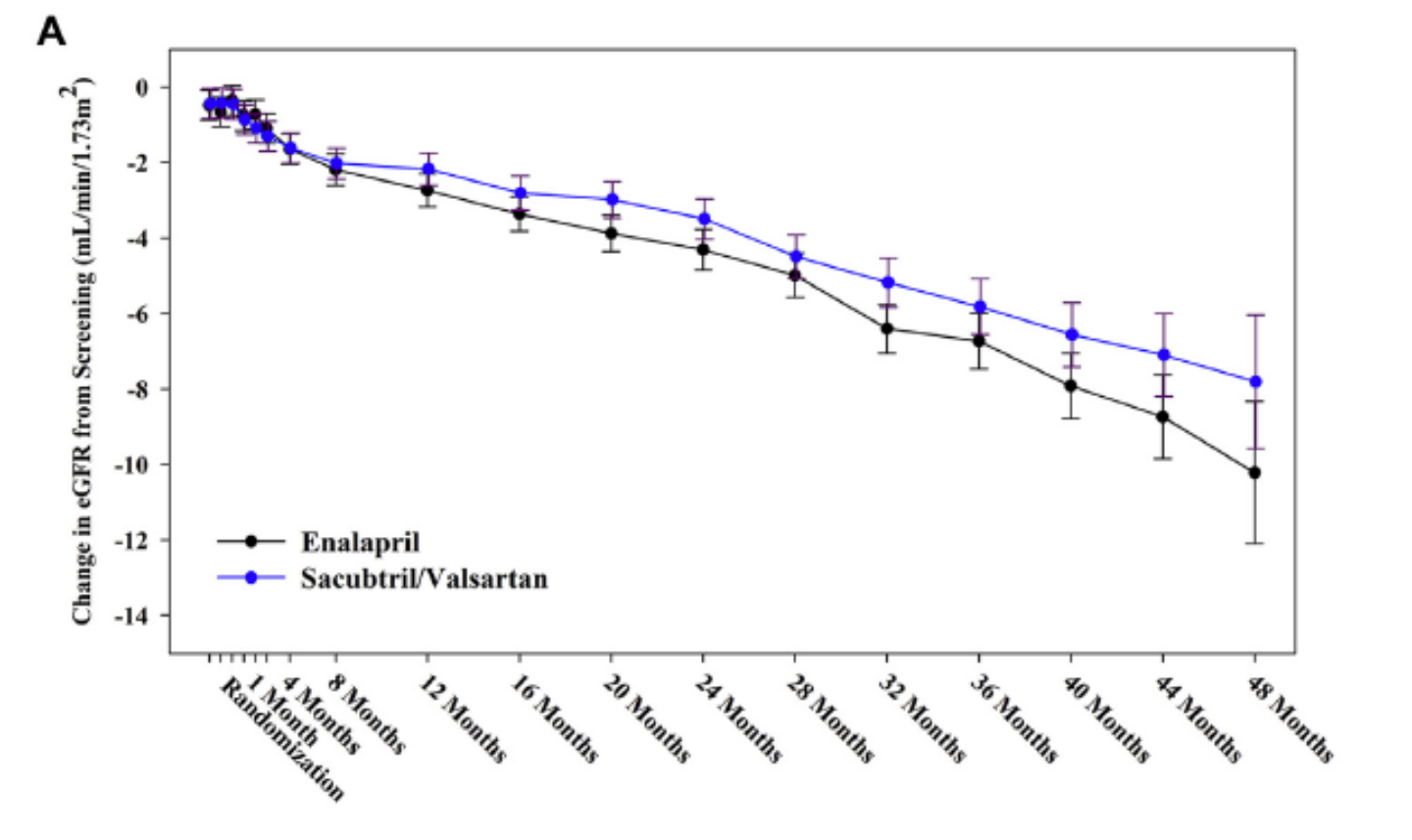
Renal Effects and Associated Outcomes During Angiotensin-Neprilysin Inhibition in Heart Failure



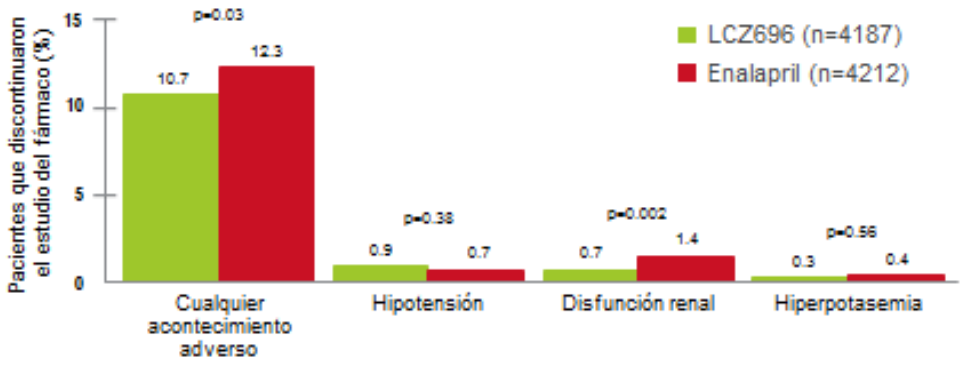
RETIRADA DE TRATAMIENTO

4/80 (5%)

- **3 HIPOTENSIÓN**
- **1 DISPEPSIA**

PARADIGMHF

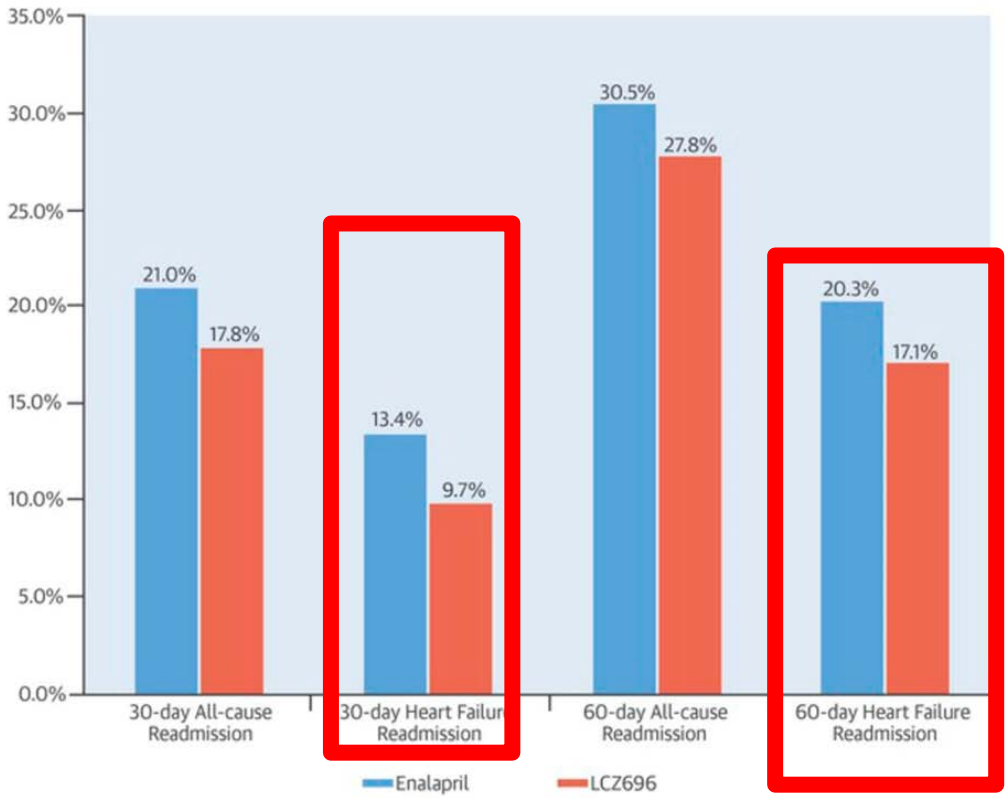
Acontecimientos adversos que provocaron una discontinuación permanente del estudio



REINGRESO POR I.CARDIACA

1m: 4/80 (5%)
3m: 7/80 (9%)

CENTRAL ILLUSTRATION: Influence of LCZ696 on Readmission: Rates After Investigator-Reported HF Hospitalization According to Treatment Assignment

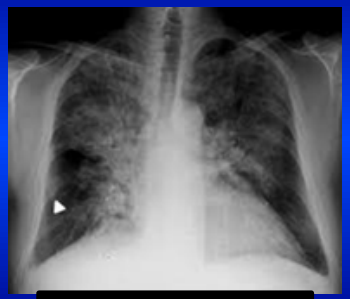


Desai, A.S. et al. J Am Coll Cardiol. 2016;68(3):241-8.

PARADIGMHF

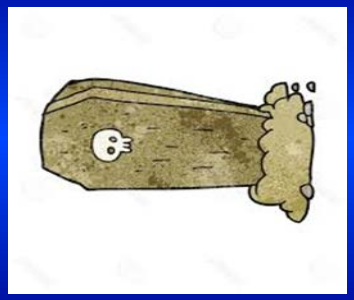
EXITUS-3 MESES

9/80 (11%)

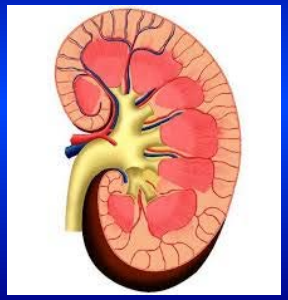


3 ICC

1 IAM

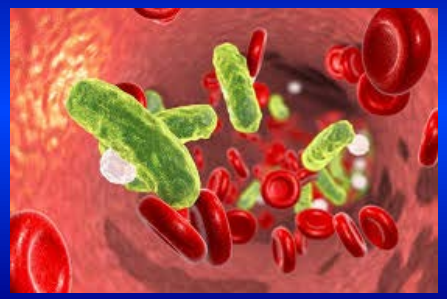


1 MS



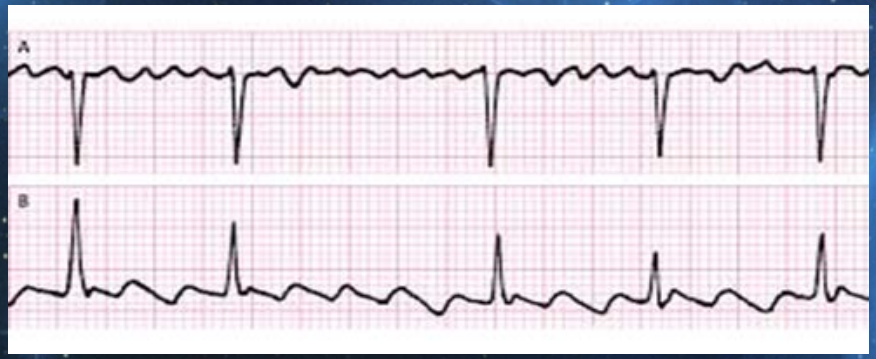
1 IRENAL

1 TEP



2 SEPSIS

No Estamos Solos



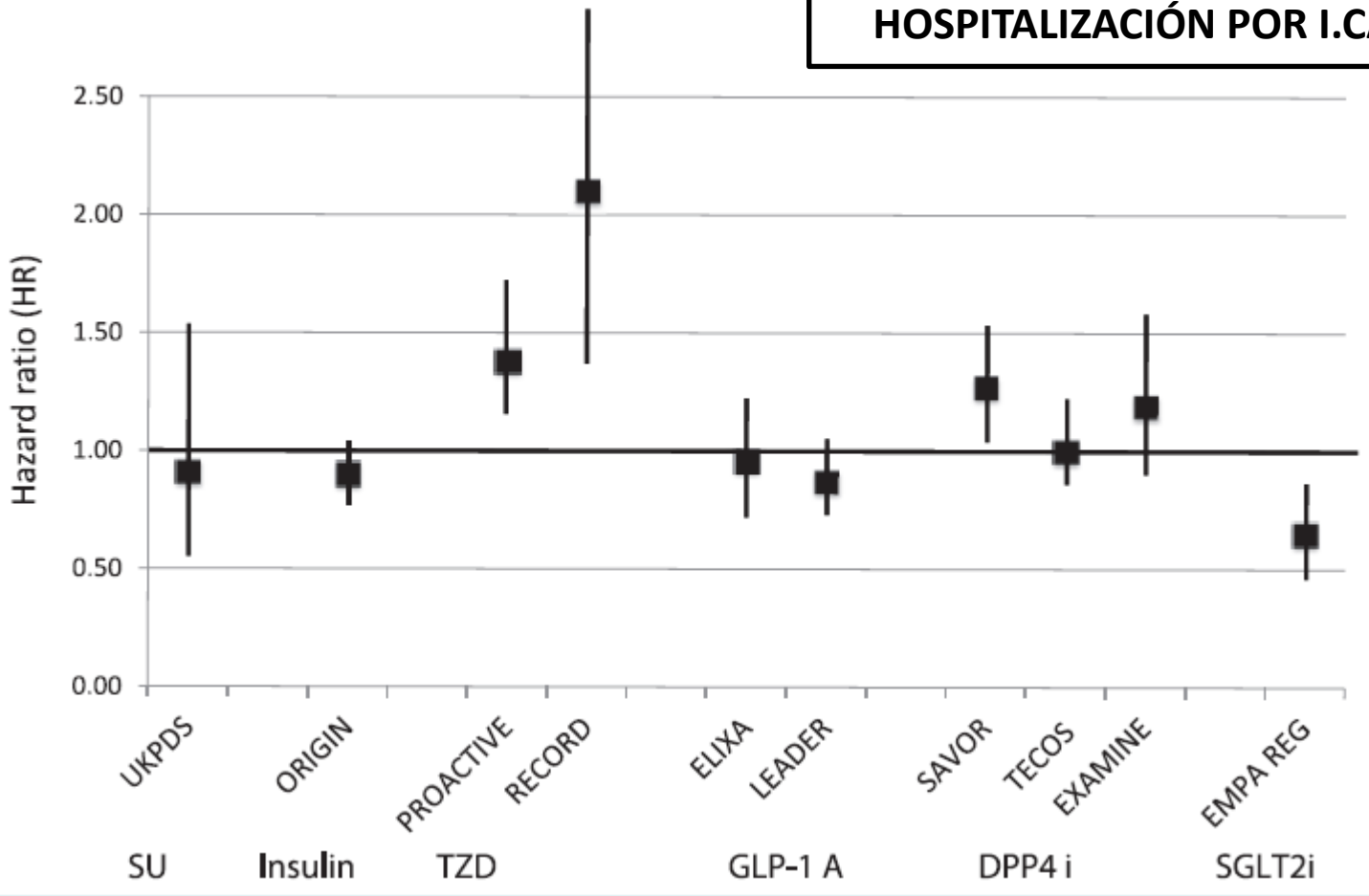
Heart failure outcomes in clinical trials of glucose-lowering agents in patients with diabetes

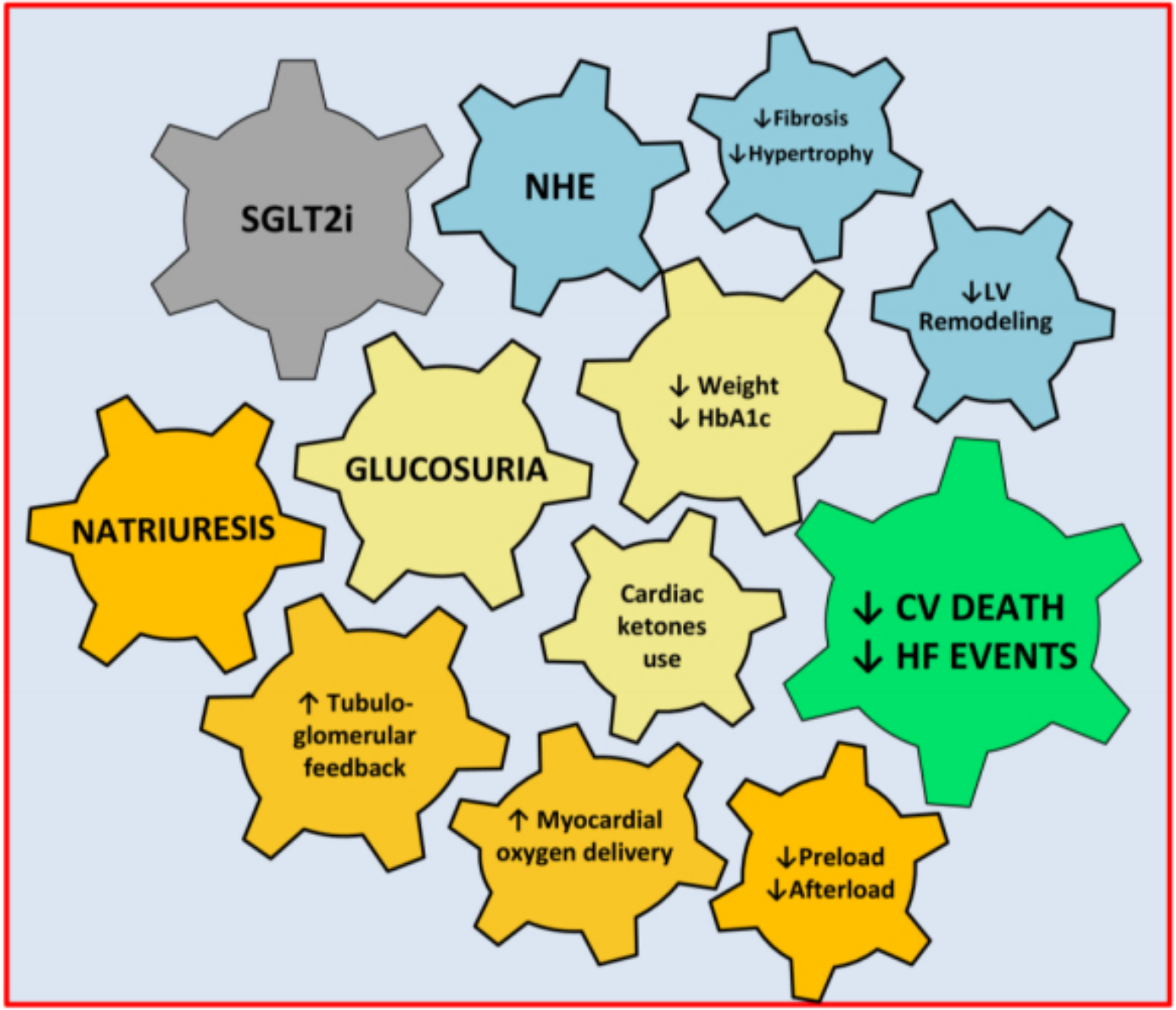
European Journal of Heart Failure (2016)

David H. Fitchett[1]*, Jacob A. Udell[2], and Silvio E. Inzucchi[3]

EUROPEAN SOCIETY OF CARDIOLOGY®

HOSPITALIZACIÓN POR I.CARDIACA




SGLT2i
NHE
↓Fibrosis
↓Hypertrophy
↓LV
Remodeling
↓ Weight
↓ HbA1c
GLUCOSURIA
NATRIURESIS
Cardiac
ketones
use
↓ CV DEATH
↓ HF EVENTS
↑ Tubulo-
glomerular
feedback
↑ Myocardial
oxygen delivery
↓Preload
↓Afterload

Effect of sacubitril/valsartan versus enalapril on glycaemic control in patients with heart failure and diabetes: a post-hoc analysis from the PARADIGM-HF trial

Jelena P Seferovic, Brian Claggett, Sara B Seidelmann, Ellen W Seely, Milton Packer, Michael R Zile, Jean L Rouleau, Karl Swedberg, Martin Lefkowitz, Victor C Shi, Akshay S Desai, John J V McMurray, Scott D Solomon

Lancet Diabetes Endocrinol 2017
Published Online
March 18, 2017
http://dx.doi.org/10.1016/S2213-8587(17)30087-6

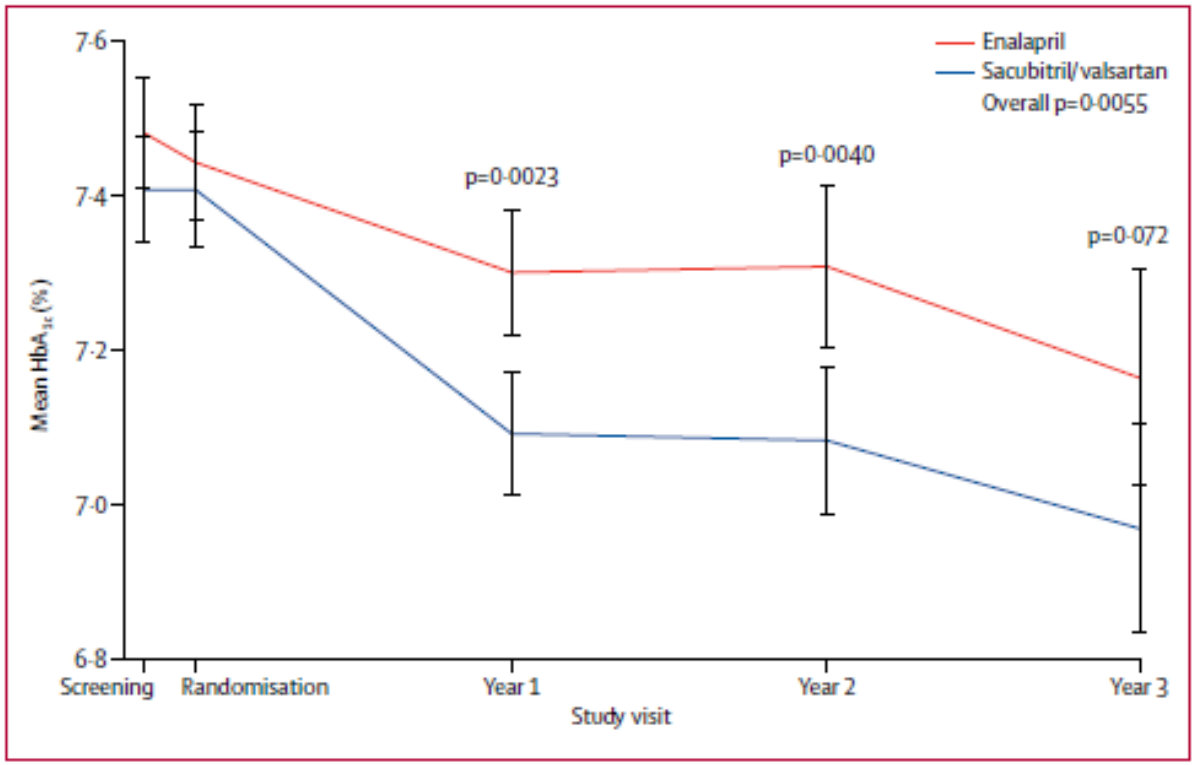


Figure 1: Changes in mean HbA_{1c} and confidence intervals by treatment group at screening, randomisation, 1-year, 2-year, and 3-year visits

(n=3778)

INTRODUCCIÓN DE INSULINA

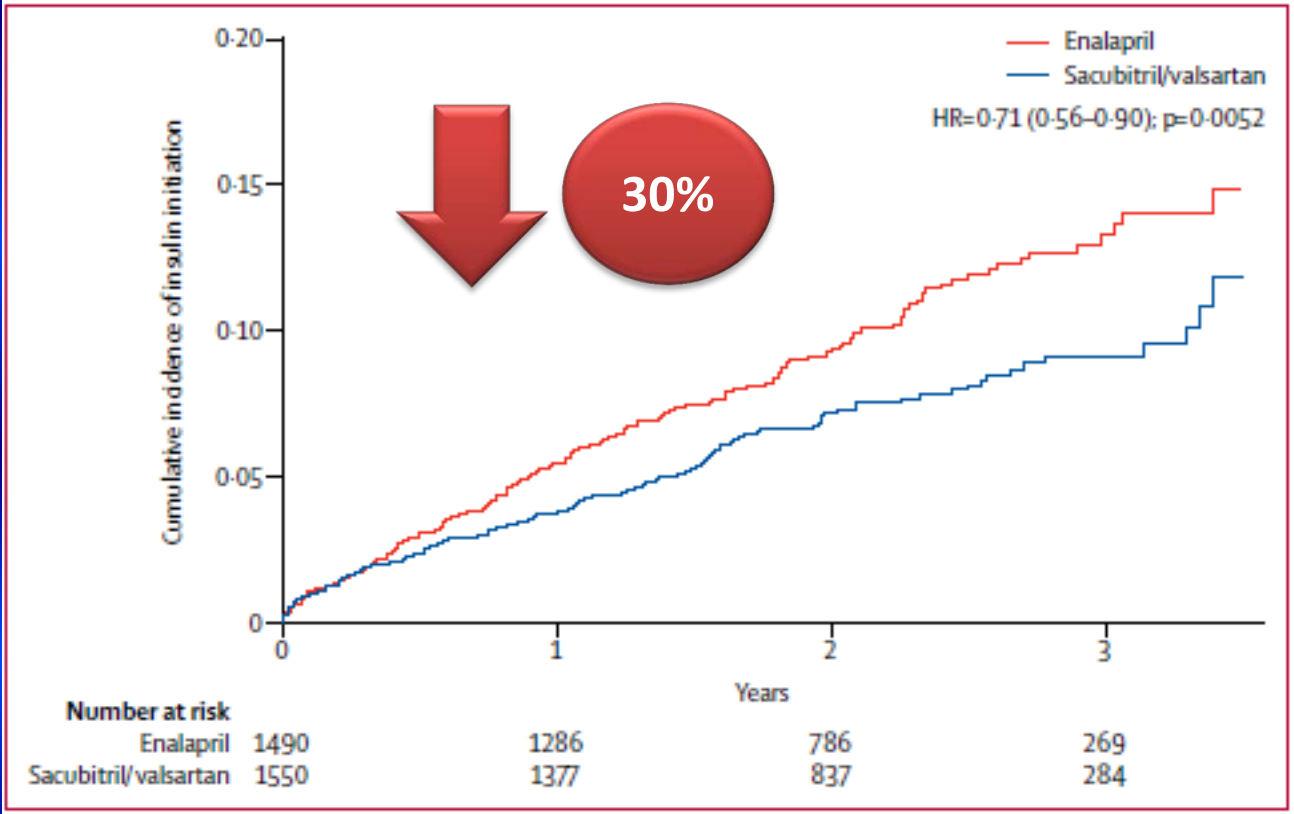


Figure 2: Kaplan-Meier curve showing time to insulin initiation in the sacubitril/valsartan and enalapril groups, in patients previously not treated with insulin

European Heart Journal (2015) **36**, 1990–1997
doi:10.1093/eurheartj/ehv186

Effect of the angiotensin-receptor-neprilysin inhibitor LCZ696 compared with enalapril on mode of death in heart failure patients

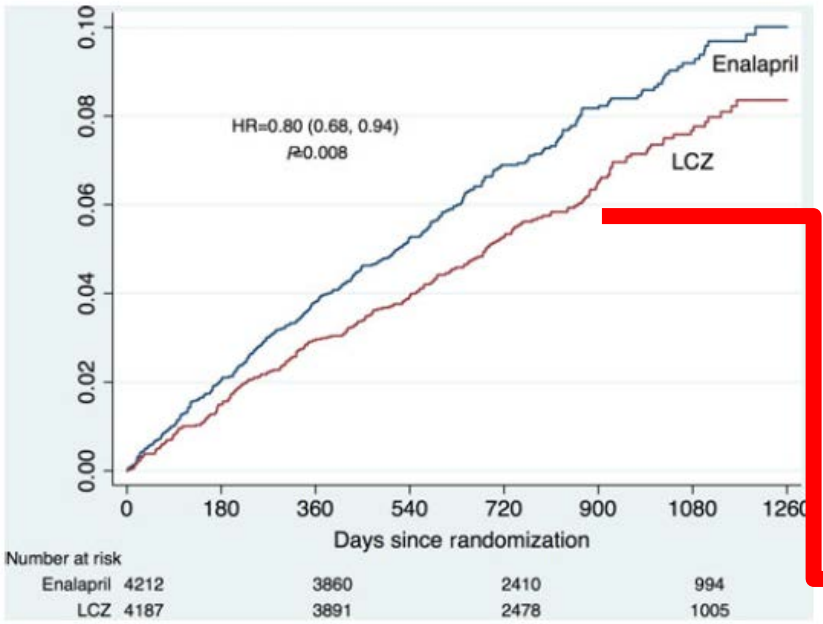
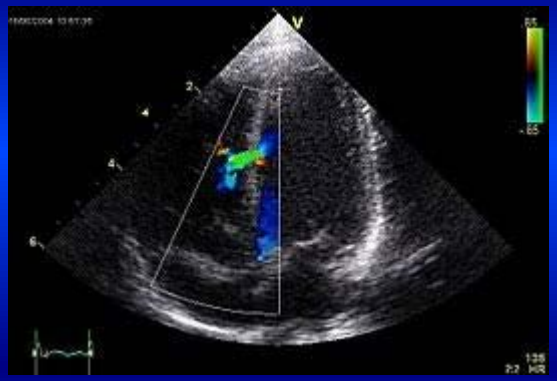
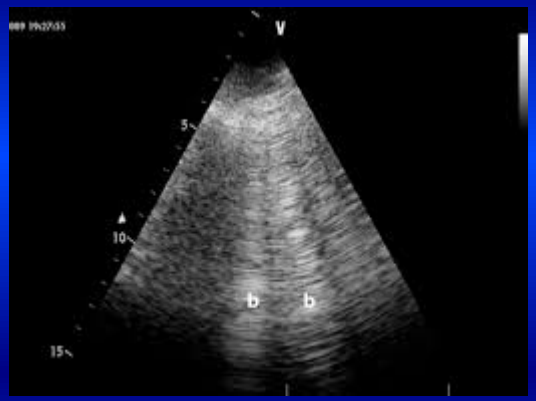


Figure 1 Kaplan–Meier survival curve for sudden death, by treatment. HR, hazard ratio.





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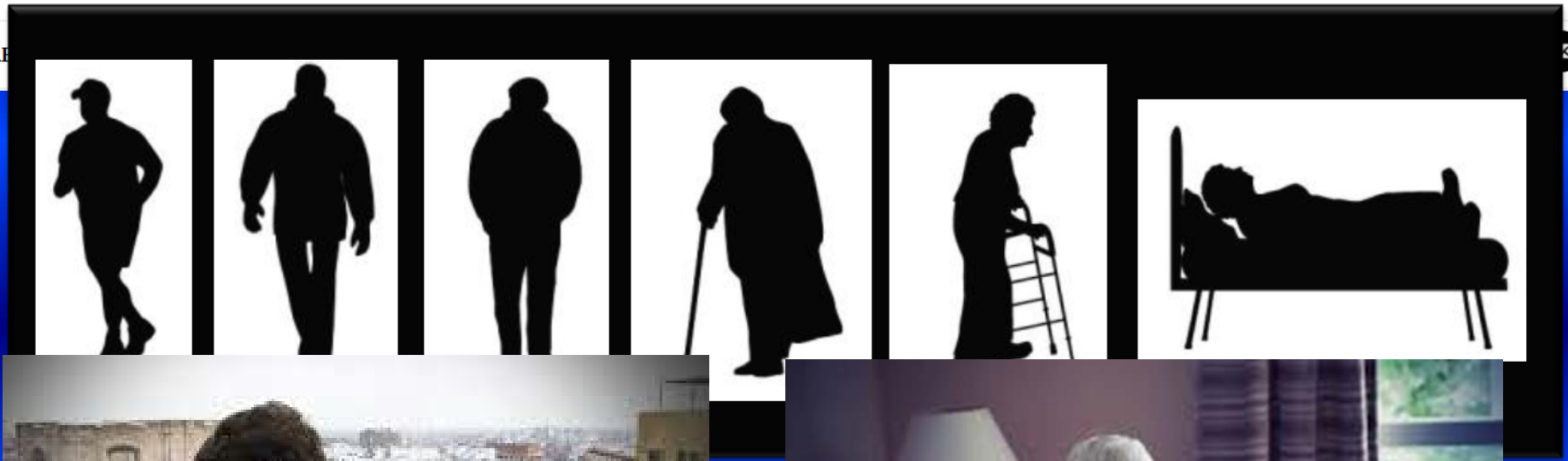
Sociedad

1 DE CADA 3 MAYORES DE 65 a

ANTROPOLOGÍA • Las investigacion

La epidemia de la soledad ya supera a la obesidad como amenaza para la salud



NUESTRA EXPERIENCIA “AL ALTA”

- Inicio de tratamiento cuando llevamos 2 días de diuréticos orales.
- Normalmente empezamos por dosis bajas.
- Revisamos al mes y 3 meses como mínimo.
- Subimos a dosis media.
- No corremos para subir a dosis altas.
- Tasa de reingresos, retirada, mortalidad → algo menor que PARADIGM.

CADA MAESTRILLO……

- Es raro que se retire por fallo renal.
- A veces hay que bajar diuréticos, betabloq. o retirar ARM.
- Escribimos en todos los informes de alta que no se nos ha olvidado el IECA.

MUCHAS GRACIAS