29º CONGRESSO DE CARDIOLOGIA DO ESTADO DA BAHIA

Insuficiência Cardíaca
Novos Horizontes no Tratamento

Moderador: Márcia Noya-Rabelo

Debatedores:

Marcus Andrade

Nei Dantas

Fábio Bulhões

Bráulio Pinna

Carlos Vinicius Espírito Santo

Jackson Brandão

Masculino
65 anos
ECG – QRS 150mms
Fe 30%
Cardiopatia Dilatada
Insuficiência Mitral Severa
NYHA III

Enalapril 20mg 2xdia , Carvedilol 25mg 2 xdia, Furosemida 120mg/dia , Espironolactona 25mg/dia

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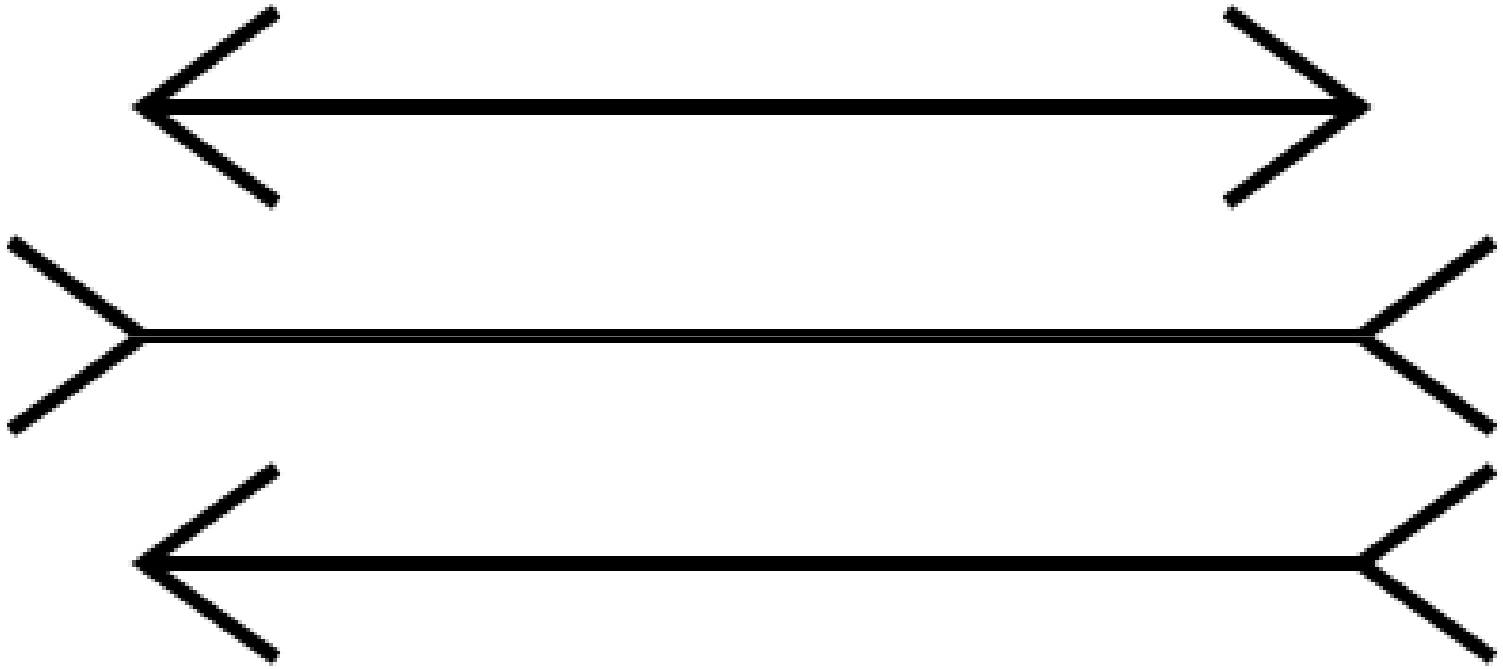
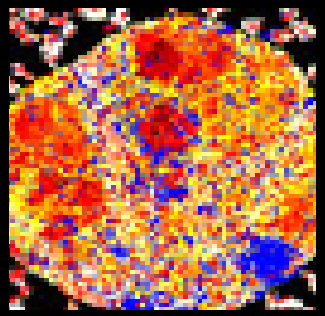
1. Há indicação Valsartana/Sacubutril?
2. Terapia de ressincronização ? Com ou sem CDI?
3. Anticoagulação? Se sim qual anticoagulante?
4. Quando e como abordar a insuficiência mitral secundária?
5. Suporte ventricular mecânico – terapia de destino?
6. Quando e como encaminhar para o Tx?

A realidade pode ser tão complexa que as observações feitas de um determinado assunto, vistas de ângulos diferentes, podem parecer bem contraditórias!



Complexidade dos Sistemas Biológicos



Devo trocar IECA por valsartana/sacubitril?

Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure

PARADIGM-HF

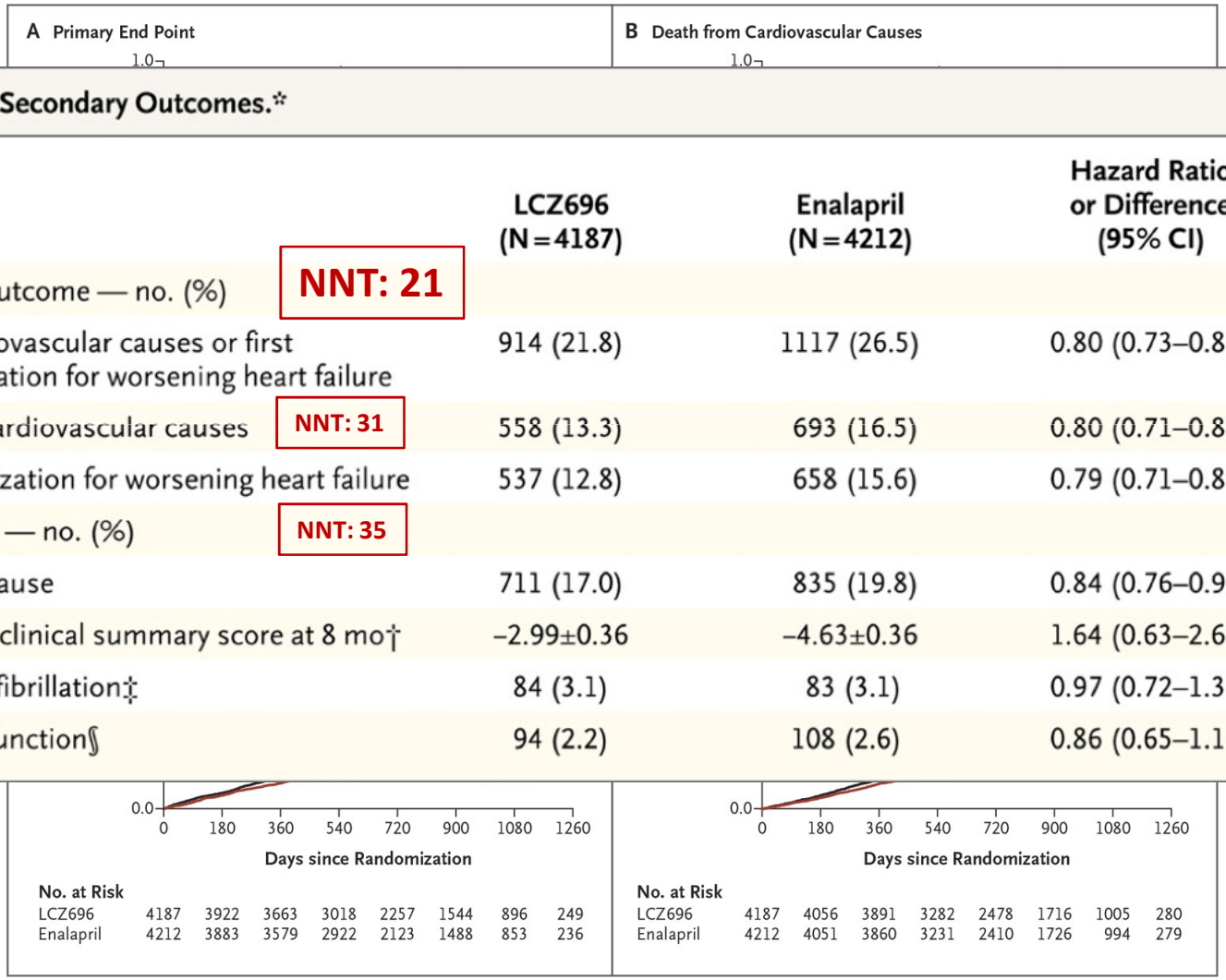
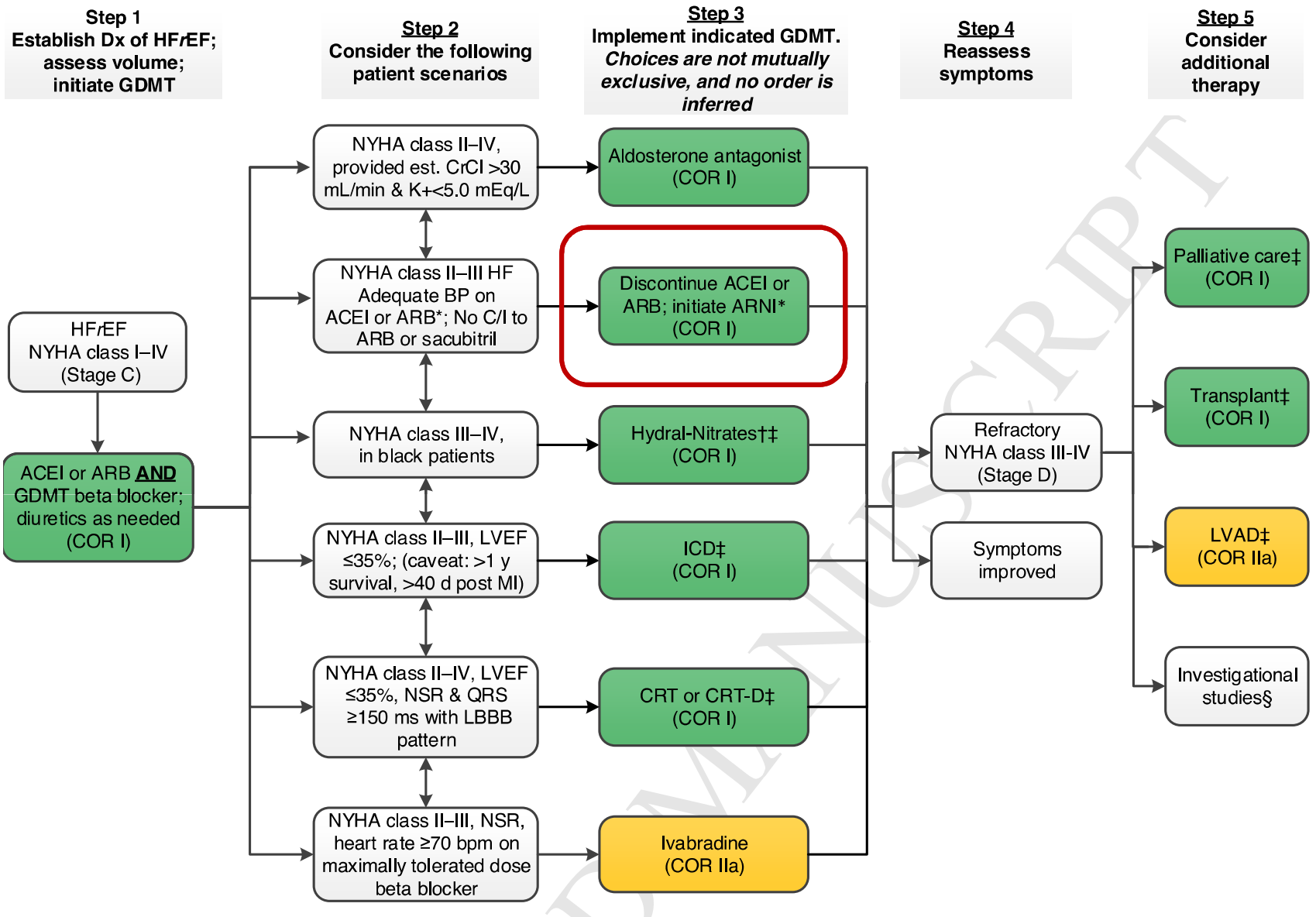


Table 2. Primary and Secondary Outcomes.*

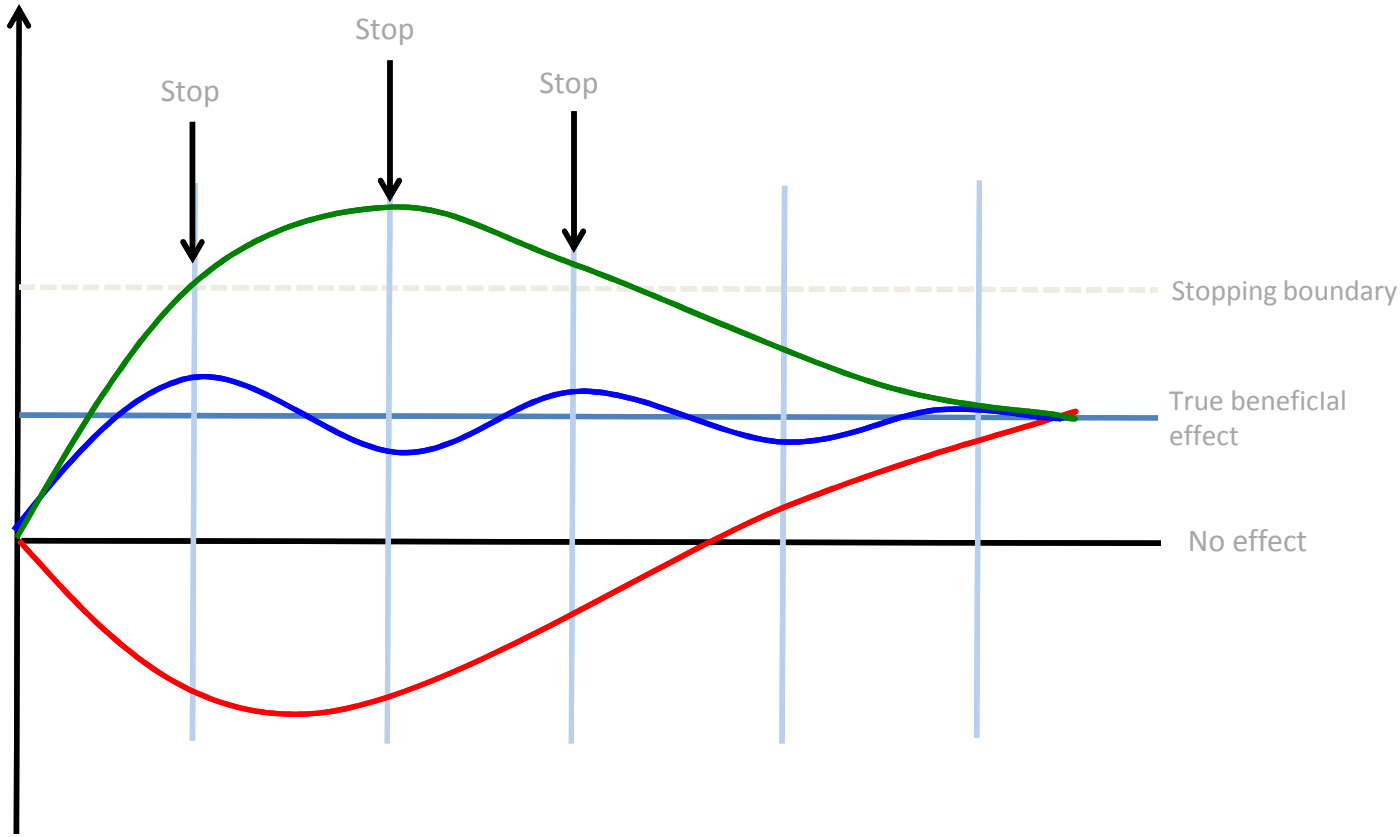
Outcome	LCZ696 (N=4187)	Enalapril (N=4212)	Hazard Ratio or Difference (95% CI)	P Value
Primary composite outcome — no. (%) **NNT: 21**				
Death from cardiovascular causes or first hospitalization for worsening heart failure	914 (21.8)	1117 (26.5)	0.80 (0.73–0.87)	<0.001
Death from cardiovascular causes **NNT: 31**	558 (13.3)	693 (16.5)	0.80 (0.71–0.89)	<0.001
First hospitalization for worsening heart failure	537 (12.8)	658 (15.6)	0.79 (0.71–0.89)	<0.001
Secondary outcomes — no. (%) **NNT: 35**				
Death from any cause	711 (17.0)	835 (19.8)	0.84 (0.76–0.93)	<0.001
Change in KCCQ clinical summary score at 8 mo†	−2.99±0.36	−4.63±0.36	1.64 (0.63–2.65)	0.001
New-onset atrial fibrillation‡	84 (3.1)	83 (3.1)	0.97 (0.72–1.31)	0.83
Decline in renal function§	94 (2.2)	108 (2.6)	0.86 (0.65–1.13)	0.28

N Engl J Med 2014; 371: 993 - 1004



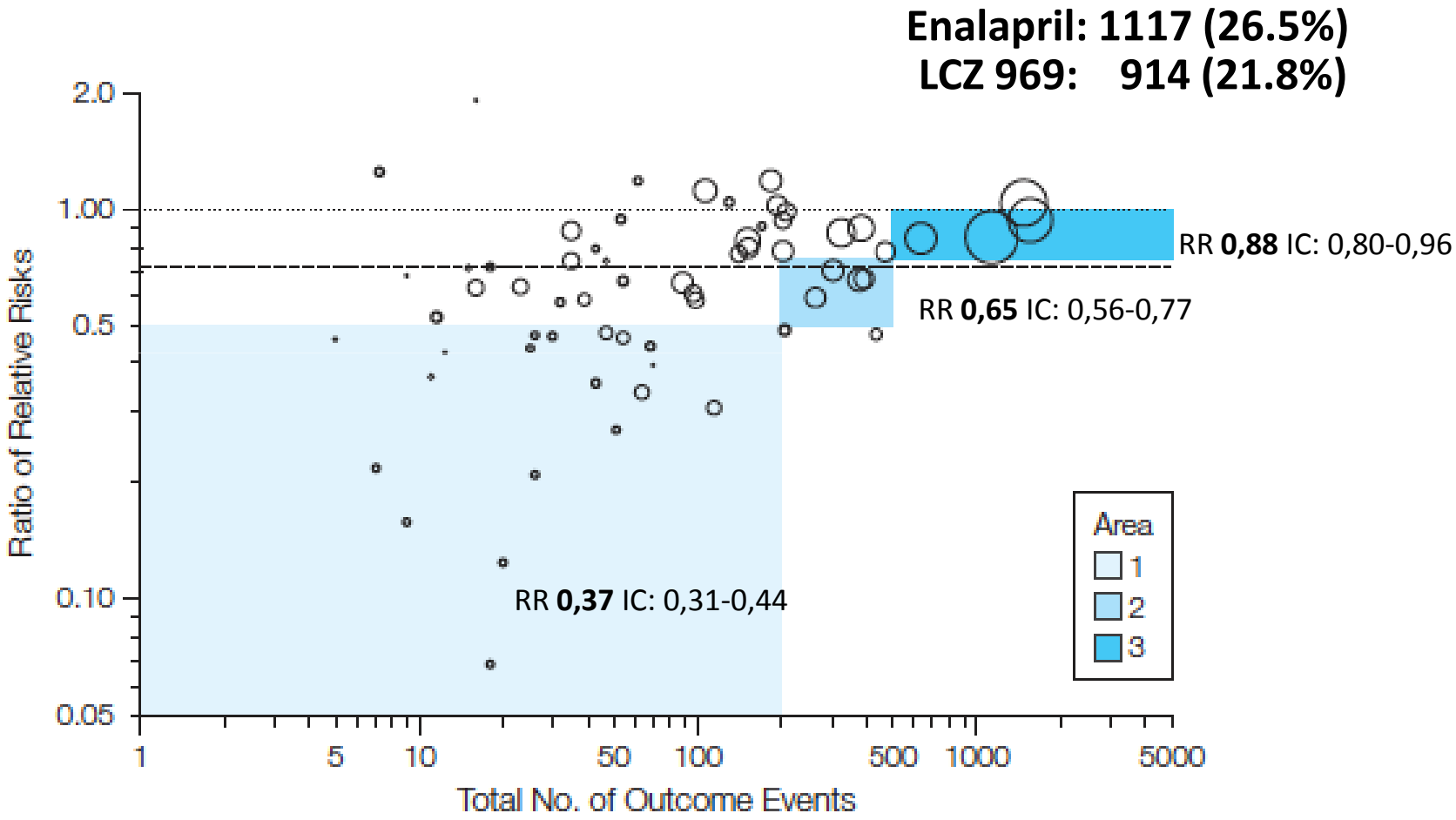
2017 ACC/AHA/HFSA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure

Theoretical Distribution of Randomized Controlled Trial Results as Data Accumulate



Guyatt G. User's guides to the medical literature. JAMA 2008

Outcomes Events in Truncated RCTs



Bassler D . JAMA 2010; 303(12): 1180 - 1187

Entresto Sacubitril / Valsartan

SACUBITRIL; VALSARTAN is a combination of 2 drugs used to reduce the risk of death and hospitalizations in people with long-lasting heart failure. It is usually used with other medicines to treat heart failure. Compare angiotensin receptor neprilysin inhibitors.

Prescription Settings | brand | tablet | 97mg/103mg | 60 tablets | SAVE | SHARE

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Walmart	$423.91 with free discount	GET FREE DISCOUNT
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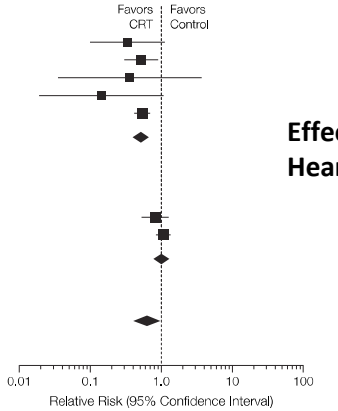
Terapia de Ressincronização ?
Com ou sem CDI?

Cardiac Resynchronization Therapy for Patients With Left Ventricular Systolic Dysfunction

A Systematic Review

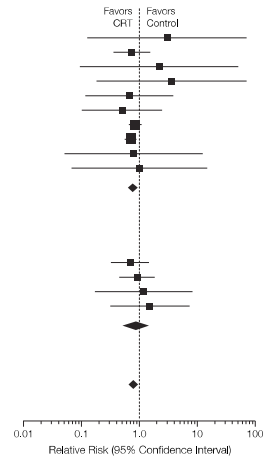
Source	Hospitalization for Heart Failure, No./Total: CRT	Control	Relative Risk (95% Confidence Interval)
CRT Alone vs Medical Therapy			
MUSTIC-SR,[9] 2001	3/29	9/29	0.33 (0.10-1.11)
MIRACLE,[8] 2002	18/228	34/225	0.52 (0.30-0.90)
MUSTIC-AF,[11] 2002	1/25	2/18	0.36 (0.04-3.67)
RD-CHF,[14] 2003	1/22	7/22	0.14 (0.02-1.07)
CARE-HF,[19] 2005	72/409	133/404	0.53 (0.42-0.69)
Subtotal Test for Heterogeneity: $\chi^2_4 = 2.27$; $P = .69$; $I^2 = 0\%$ Test for Overall Effect: $Z = 5.88$; $P < .001$	95/713	185/698	0.51 (0.41-0.64)
CRT + ICD vs ICD Alone			
CONTAK-CD,[13] 2003	32/245	39/245	0.82 (0.53-1.26)
MIRACLE-ICD,[10] 2003	85/187	78/182	1.06 (0.84-1.33)
Subtotal Test for Heterogeneity: $\chi^2_1 = 1.10$; $P = .29$; $I^2 = 8.8\%$ Test for Overall Effect: $Z = 0.04$; $P = .97$	117/432	117/427	1.00 (0.80-1.24)
Total Test for Heterogeneity: $\chi^2_6 = 23.08$; $P < .001$; $I^2 = 74.0\%$ Test for Overall Effect: $Z = 2.34$; $P = .02$	212/1145	302/1125	0.63 (0.43-0.93)



Effect of CRT on Proportion of Patients Hospitalized for Heart Failure

Effect of CRT on All-Cause Mortality

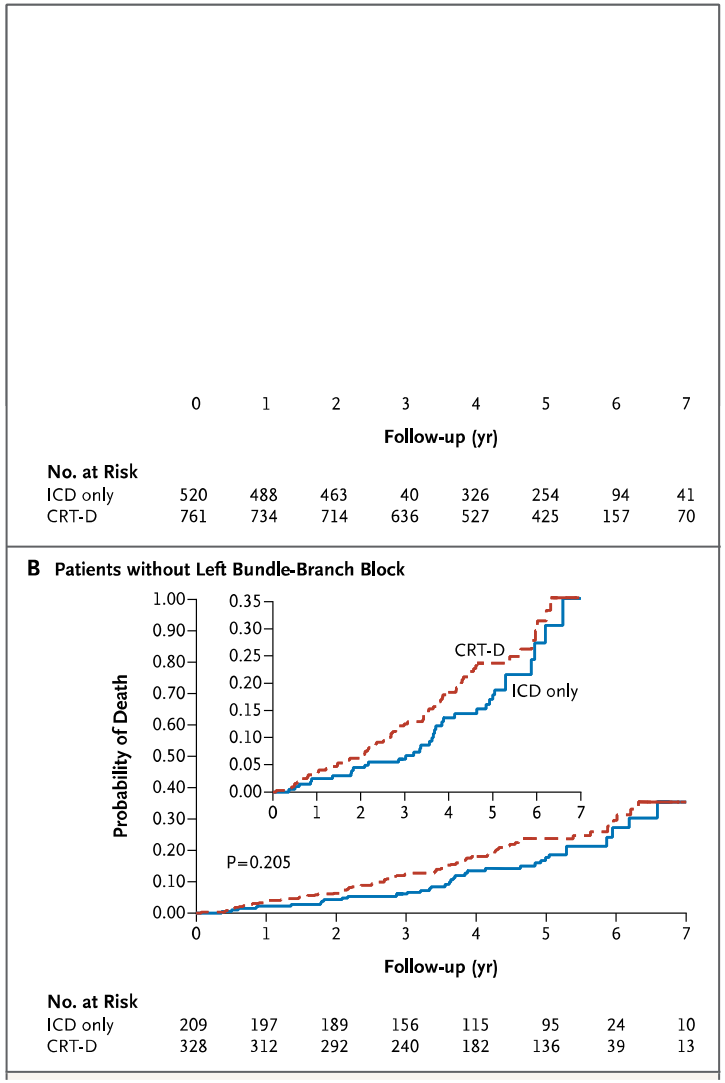
Source	All-Cause Mortality, No./Total: CRT	Control	Relative Risk (95% Confidence Interval)
CRT Alone vs Medical Therapy			
MUSTIC-SR,[9] 2001	1/29	0/29	3.00 (0.13-70.74)
MIRACLE,[8] 2002	12/228	16/225	0.74 (0.36-1.53)
MUSTIC-AF,[11] 2002	1/25	0/18	2.19 (0.09-50.93)
PATH-CHF,[12] 2002	2/24	0/17	3.60 (0.18-70.54)
PATH-CHF II,[16] 2003	2/43	3/43	0.67 (0.12-3.79)
RD-CHF,[14] 2003	2/22	4/22	0.50 (0.10-2.45)
COMPANION,[15] 2004	131/617	77/308	0.85 (0.66-1.09)
CARE-HF,[19] 2005	92/409	129/404	0.70 (0.56-0.89)
VECTOR,[20] 2005	1/59	1/47	0.80 (0.05-12.40)
HOBIPACE,[17] 2006	1/16	1/16	1.00 (0.07-14.64)
Subtotal Test for Heterogeneity: $\chi^2_9 = 3.72$; $P = .93$; $I^2 = 0\%$ Test for Overall Effect: $Z = 3.16$; $P = .002$	245/1472	231/1129	0.77 (0.66-0.91)
CRT + ICD vs ICD Alone			
CONTAK-CD,[13] 2003	11/245	16/245	0.69 (0.33-1.45)
MIRACLE-ICD,[10] 2003	14/187	15/182	0.91 (0.45-1.83)
MIRACLE ICD II,[18] 2004	2/85	2/101	1.19 (0.17-8.26)
RHYTHM-ICD,[21] 2005	6/119	2/60	1.51 (0.31-7.27)
Subtotal Test for Heterogeneity: $\chi^2_3 = 0.97$; $P = .81$; $I^2 = 0\%$ Test for Overall Effect: $Z = 0.60$; $P = .55$	33/636	35/588	0.86 (0.54-1.39)
Total Test for Heterogeneity: $\chi^2_{12} = 4.90$; $P = .98$; $I^2 = 0\%$ Test for Overall Effect: $Z = 3.18$; $P = .001$	278/2108	266/1717	0.78 (0.67-0.91)



JAMA 2007; 297: 2502 – 2514

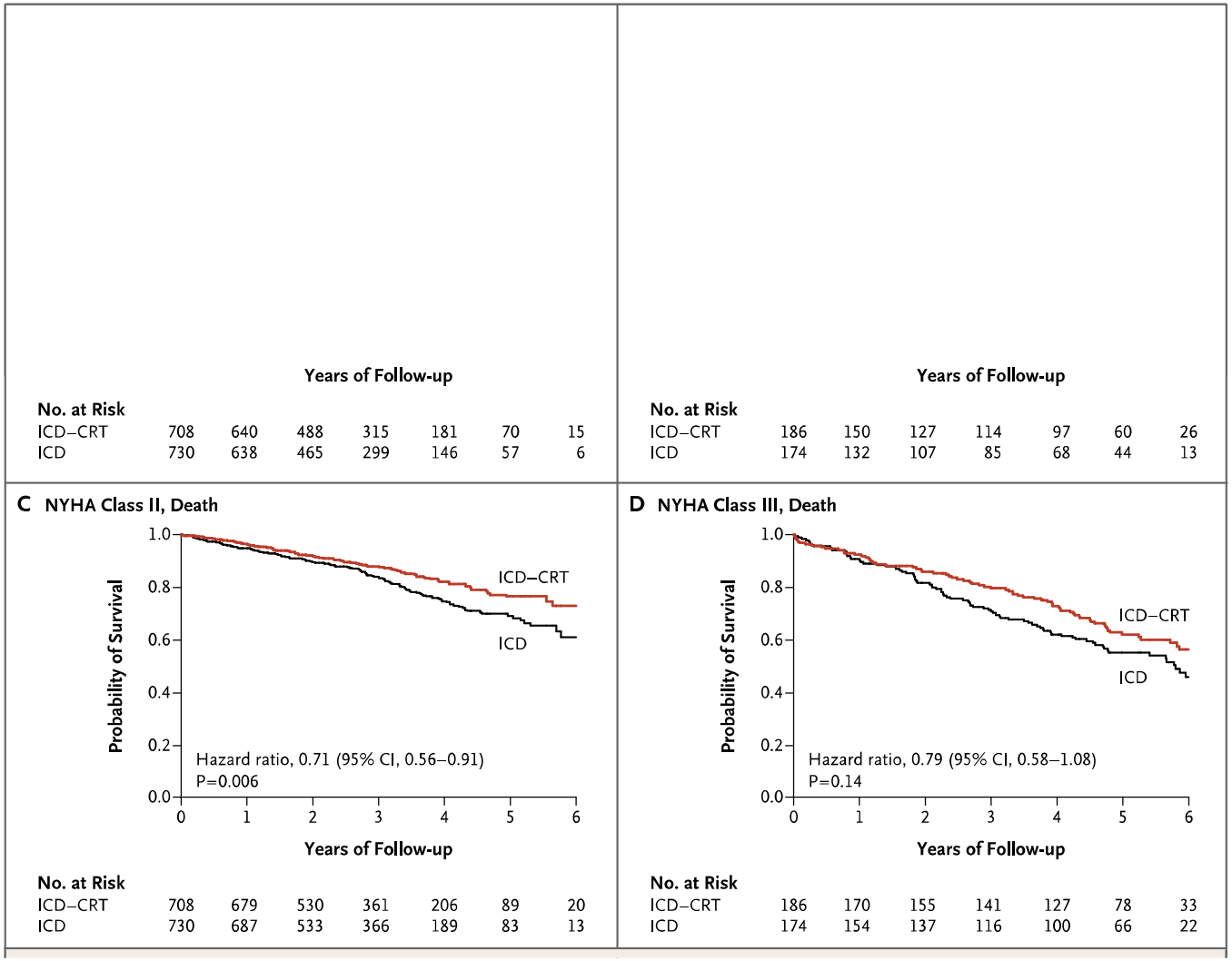
Survival with Cardiac-Resynchronization Therapy in Mild Heart Failure

MADIT-CRT – 7 year follow-up



N Engl J Med 2014; 370: 1694 - 1701

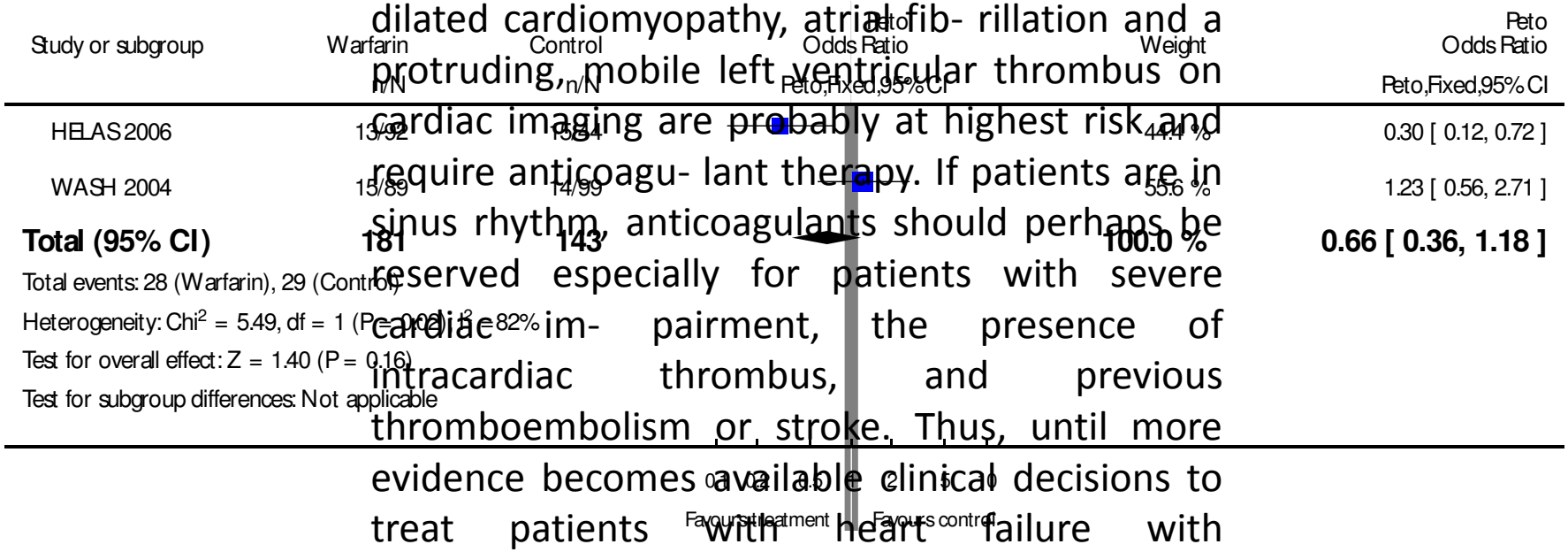
Cardiac-Resynchronization Therapy for Mild-to-Moderate Heart Failure
RAFT Trial



N Engl J Med 2010; 363: 2385 - 2395

Anticoagulação?
Se sim qual anticoagulante?

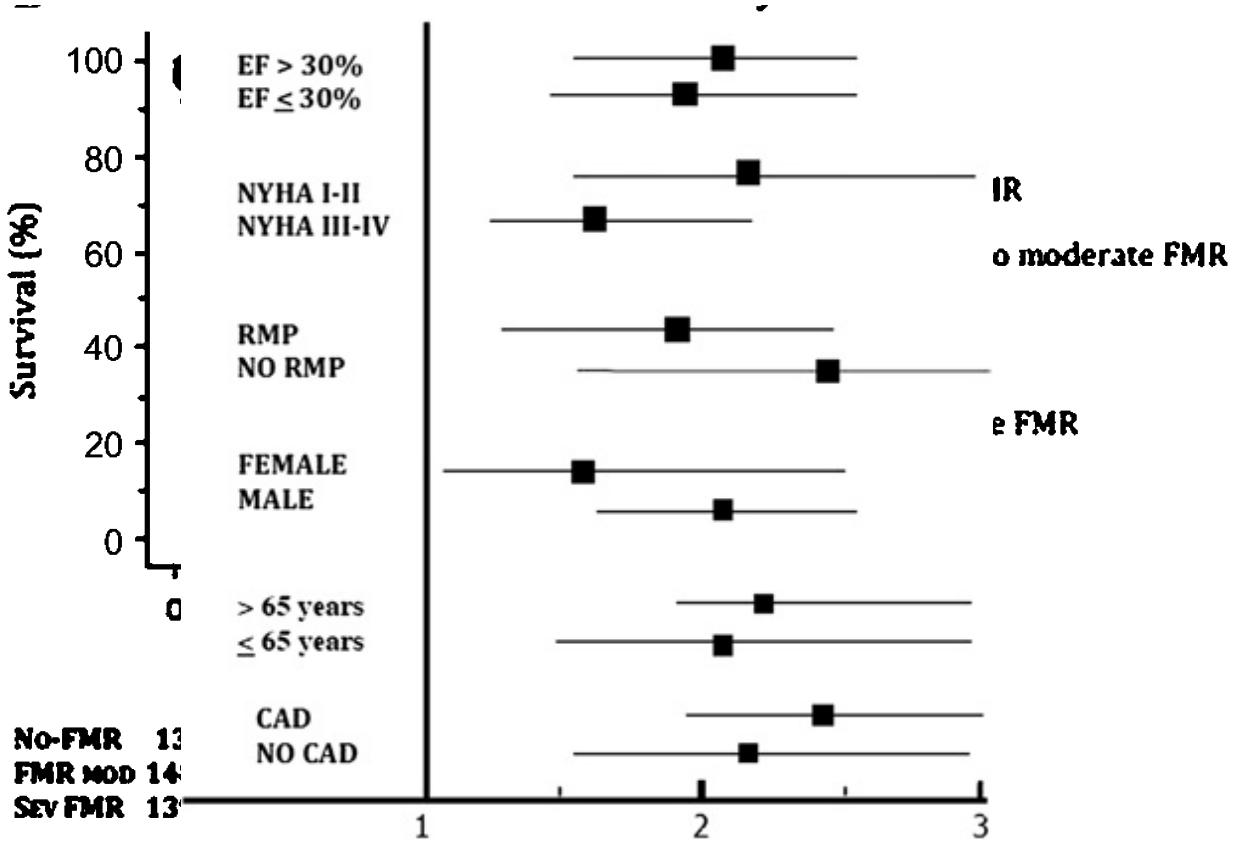
Anticoagulation versus placebo for heart failure in sinus rhythm



Based on current evidence, patients with heart failure with poor cardiac function or idiopathic dilated cardiomyopathy, atrial fib- rillation and a protruding, mobile left ventricular thrombus on cardiac imaging are probably at highest risk and require anticoagu- lant therapy. If patients are in sinus rhythm, anticoagulants should perhaps be reserved especially for patients with severe cardiac im- pairment, the presence of intracardiac thrombus, and previous thromboembolism or stroke. Thus, until more evidence becomes available clinical decisions to treat patients with heart failure with anticoagulants must be made on an individual basis, based upon individual benefits and risks.

Quando e como abordar a insuficiência mitral secundária?

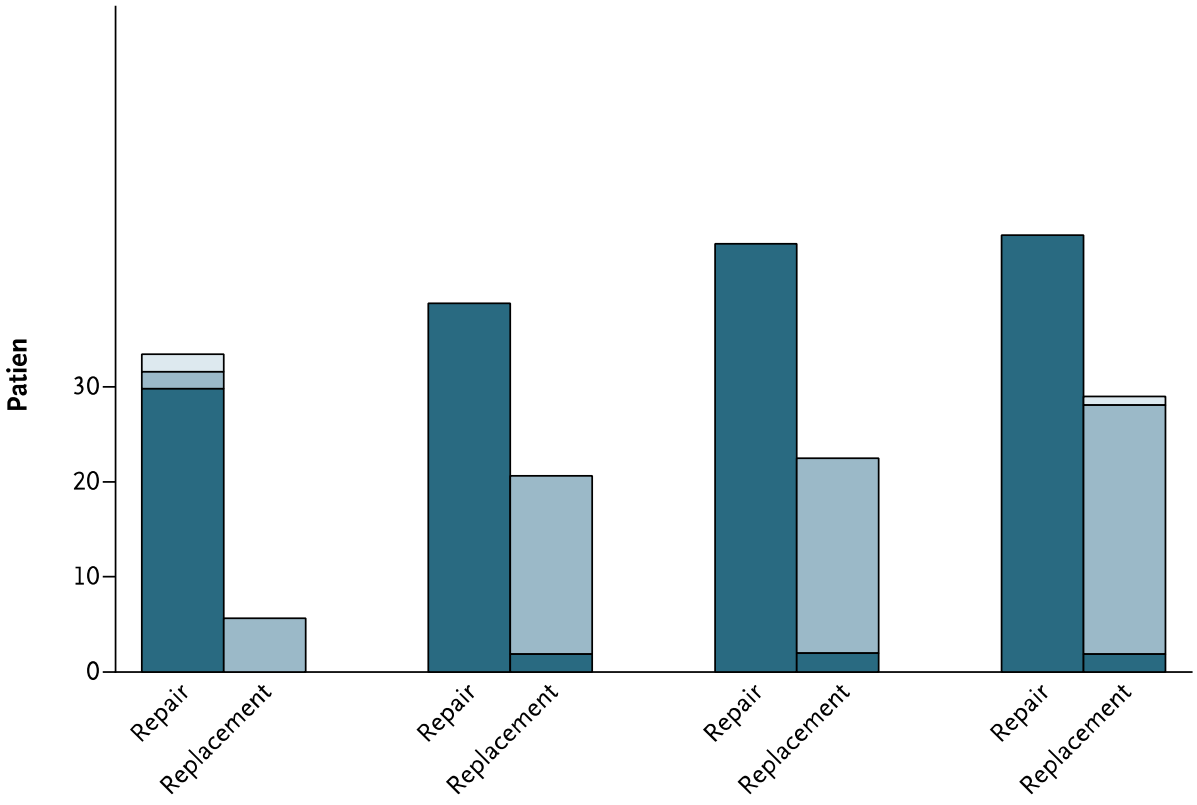
Independent Prognostic Value of Functional Mitral Regurgitation in Patients with Heart Failure



Heart 2011; 97: 1675 - 1680

Two-Year Outcomes of Surgical Treatment of Severe Ischemic Mitral Regurgitation

CTSN



MV replacement	125	103	100	92	65

N Engl J Med 2016;374: 344 - 353

Percutaneous Repair or Surgery for Mitral Regurgitation
EVEREST II Trial

Table 2. Primary Efficacy End Point at 12 Months and Major Adverse Events at 30 Days in the Intention-to-Treat Population.*

Event	Percutaneous Repair	Surgery	P Value
	no. (%)		
Freedom from death, from surgery for mitral-valve dysfunction, and from grade 3+ or 4+ mitral regurgitation†	100 (55)	65 (73)	0.007
Surgery for mitral-valve dysfunction‡	37 (20)	2 (2)	<0.001
Major adverse event at 30 days§			
Any major adverse event	27 (15)	45 (48)	<0.001¶
Any major adverse event excluding transfusion	9 (5)	9 (10)	0.23
Death	2 (1)	2 (2)	0.89
Myocardial infarction	0	0	NA
Reoperation for failed surgical repair or replacement	0	1 (1)	0.74
Urgent or emergency cardiovascular surgery for adverse event	4 (2)	4 (4)	0.57
Major stroke	2 (1)‖	2 (2)	0.89
Renal failure	1 (<1)	0	1.00
Deep wound infection	0	0	NA
Mechanical ventilation for >48 hr	0	4 (4)	0.02
Gastrointestinal complication requiring surgery	2 (1)	0	0.78
New onset of permanent atrial fibrillation	2 (1)	0	0.78
Septicemia	0	0	NA
Transfusion of ≥2 units of blood	24 (13)	42 (45)	<0.001

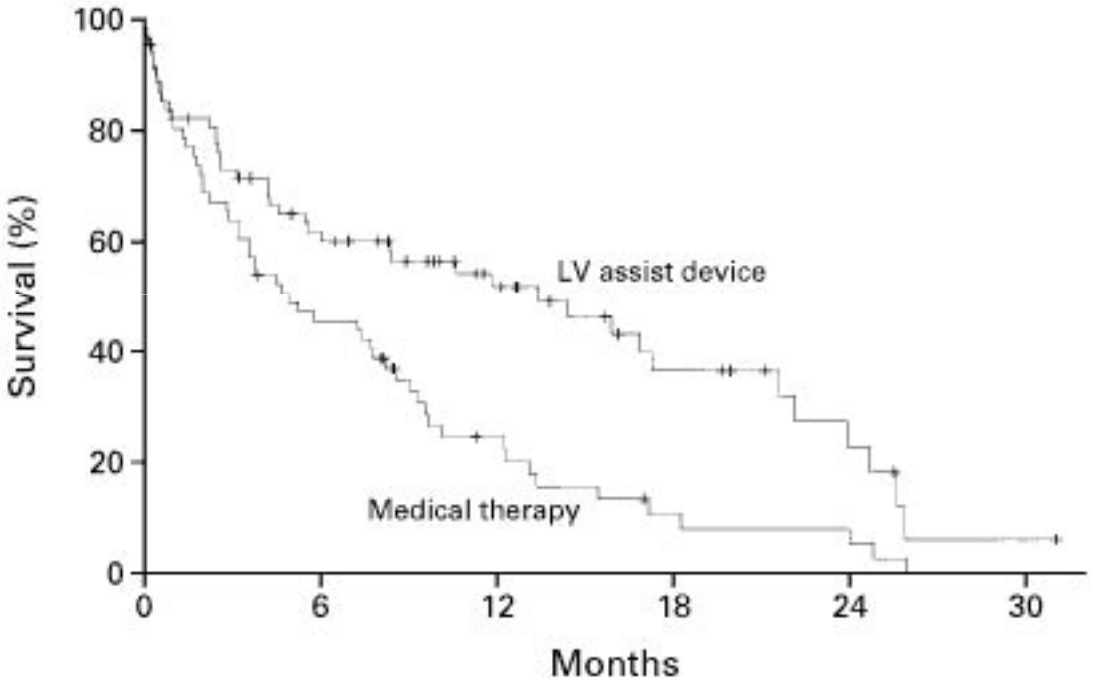
N Engl J Med 2011;364:1395-406

Suporte ventricular mecânico – terapia de destino?

Quando e como encaminhar para o Tx?

Long Term of A Left Ventricular Assist Device for End-Stage Heart failure

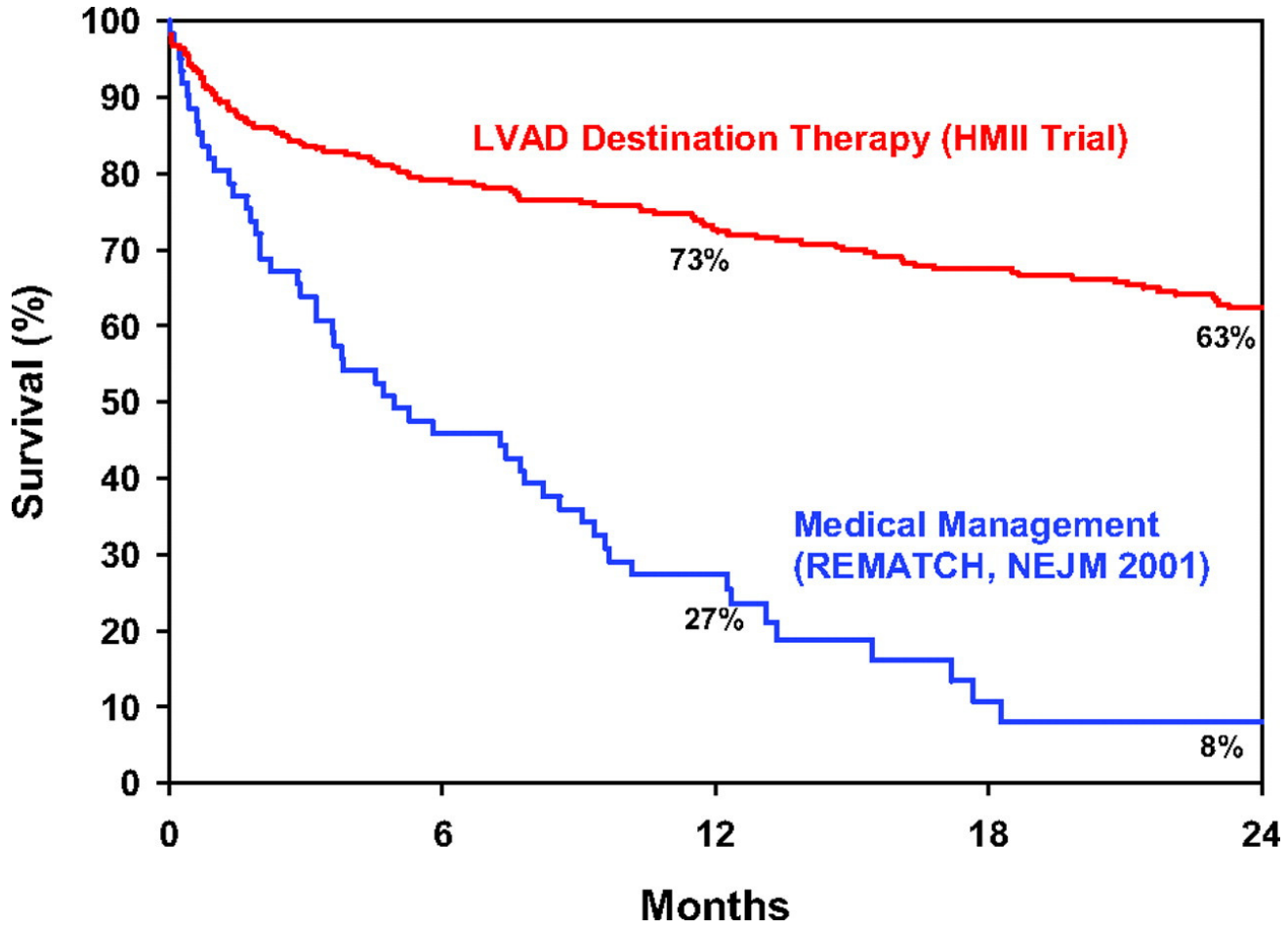
REMATCH Study Group



No. at Risk						
LV assist device	68	38	22	11	5	1
Medical therapy	61	27	11	4	3	0

N Engl J Med 2001;345:1435 - 1443

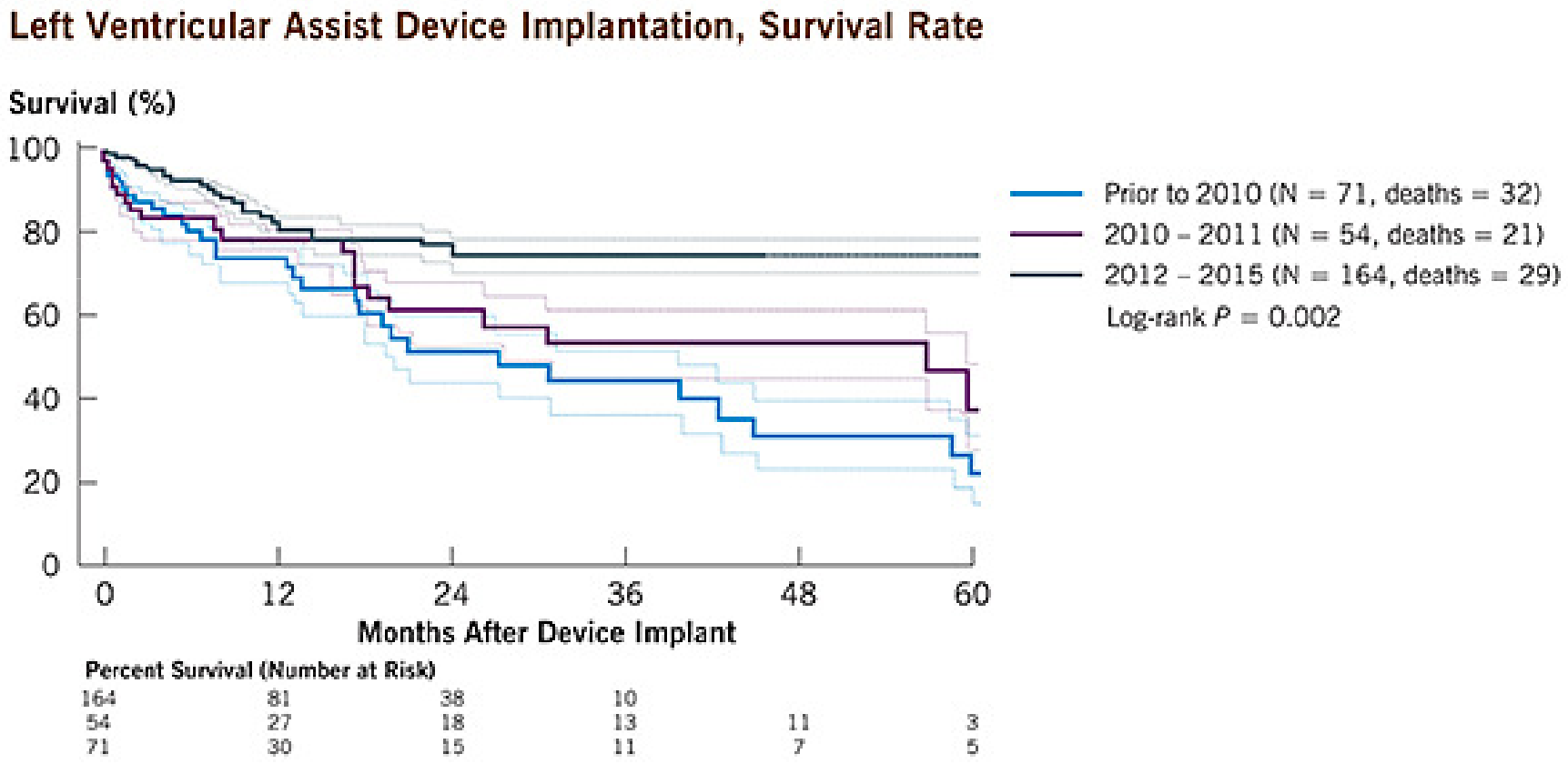
Outcomes in Advanced Heart Failure Patients with Ventricular Assist Devices for destination Therapy



Circ Heart Fail 2012; 5:241 - 248

Survival Rate – Left Ventricular Assist Device Cleveland Clinic

Cleveland Clinic



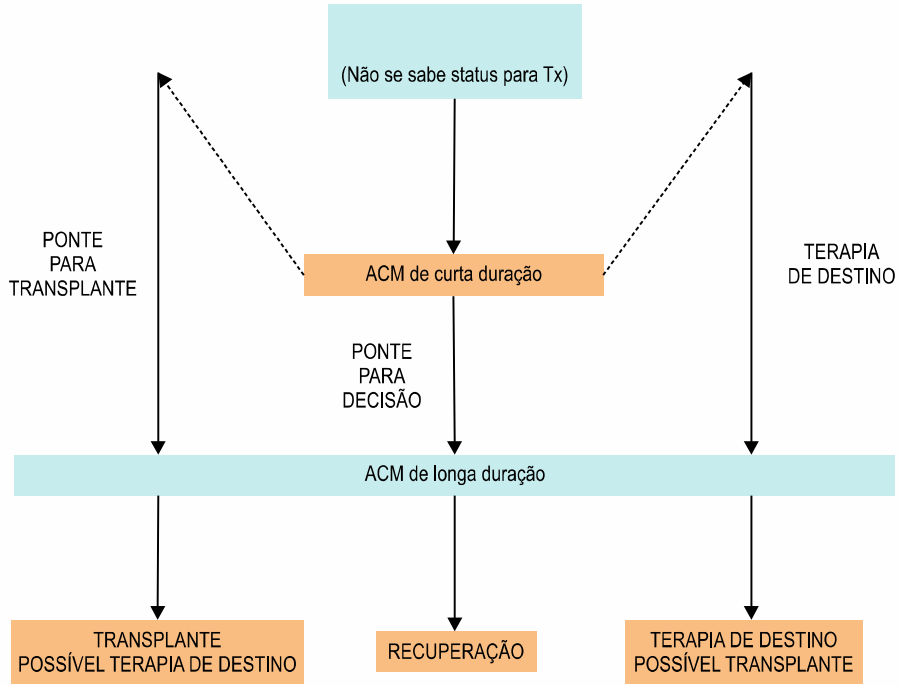
Diretriz Brasileira Transplante Cardíaco
Indicações

Classe de Recomendação	Indicações	Nível de Evidência
Classe I	IC refratária na dependência de drogas inotrópicas e/ou de suporte circulatório e/ou ventilação mecânica;	C
	VO_2 pico ≤ 10 ml/Kg/min;	C
	Doença isquêmica com angina refratária sem possibilidade de revascularização;	C
	Arritmia ventricular refratária;	C
	Classe funcional III/IV persistente.	C
Classe IIa	Teste da caminhada dos 6 minutos < 300 metros;	C
	Uso de BB com VO_2 pico ≤ 12 ml/Kg/min;	C
	Sem uso de BB com VO_2 pico ≤ 14 ml/Kg/min;	C
	Teste cardiopulmonar com relação VE/VCO_2 > 35 e VO_2 pico ≤ 14 ml/Kg/min.	C
Classe III	Presença de disfunção sistólica isolada;	C
	Classe funcional III ou IV sem otimização terapêutica.	C

VO_2 - consumo de oxigênio; BB - betabloqueador.

Arq Bras Cardiol ; 2009

Diretriz de Assistência Circulatória Mecânica



Arq Bras Cardiol ; 2016

Demonstrated benefits of guideline-recommended heart failure therapies

Guideline-recommended therapy	Relative risk reductions in pivotal randomized clinical trial (s) (%)	Number needed to treat for mortality benefit (standardized to 12 m)	Relative risk reduction in meta-analysis
Angiotensin converting enzyme inhibitor OR angiotensin II receptor blocker	17	77	20%
Beta-blocker therapy (carvedilol, bisoprolol, extended release metoprolol succinate)	34	28	31%
Aldosterone antagonist	30	18	25%
Hydralazine plus nitrate	43	21	Not available
Cardiac resynchronization therapy	36	24	29/22%
Implantable cardioverter defibrillator	23	70	26%

Am Heart J 2011; 161:1024