

Θεραπευτικές Εξελίξεις στην Καρδιακή Ανεπάρκεια 2021

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Καρδιολόγος

Επιμελητής Α΄

Θεραπευτική Κλινική ΕΚΠΑ

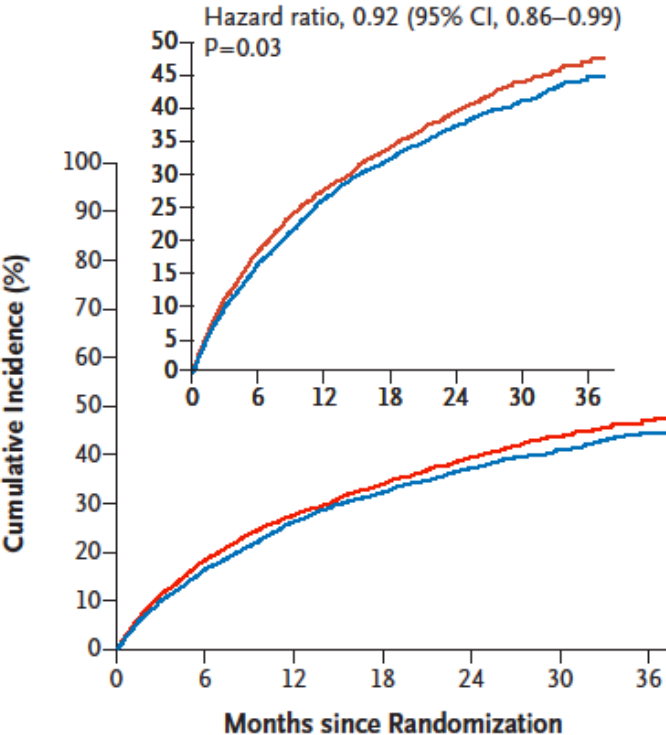
Θεραπευτικές Εξελίξεις 2022

16 Απριλίου 2022

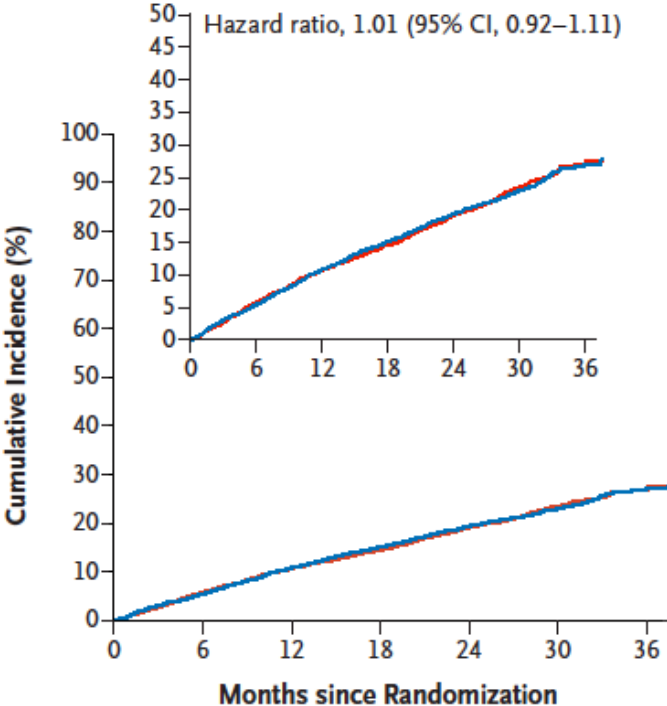
Cardiac Myosin Activation with Omecamtiv Mecarbil in Systolic Heart Failure (GALACTIC HF)

8256 patients with symptomatic chronic heart failure **EF<35%** **omecamtiv mecarbil** (25 mg, 37.5 mg, or 50 mg twice daily) or placebo, in addition to standard HF therapy.
The primary outcome was a composite of a first heart-failure event or death from cardiovascular causes

A Primary Outcome



B Cardiovascular Death



median of 21.8 months

Empagliflozin in Heart Failure with a Preserved Ejection Fraction

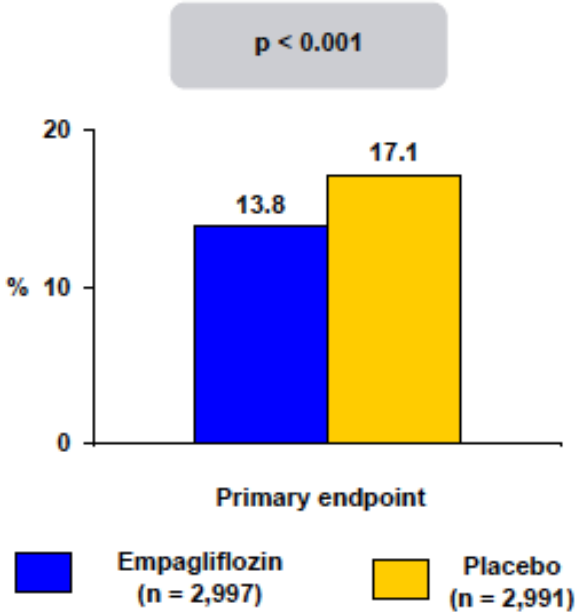
Purpose:

Evaluate the effects of SGLT2 inhibitor (Empagliflozin) on cardiovascular death and heart failure hospitalizations in patients with heart failure with a preserved ejection fraction (HFpEF), with or without diabetes.

Trial Design: N=5998, International multicenter (randomized placebo controlled, double-blind, event-driven study).

Symptomatic HFpEF patients (LVEF>40%) received empagliflozin (**10mg once daily**) or placebo, in addition to usual therapy. Median follow up period was **26 months**.

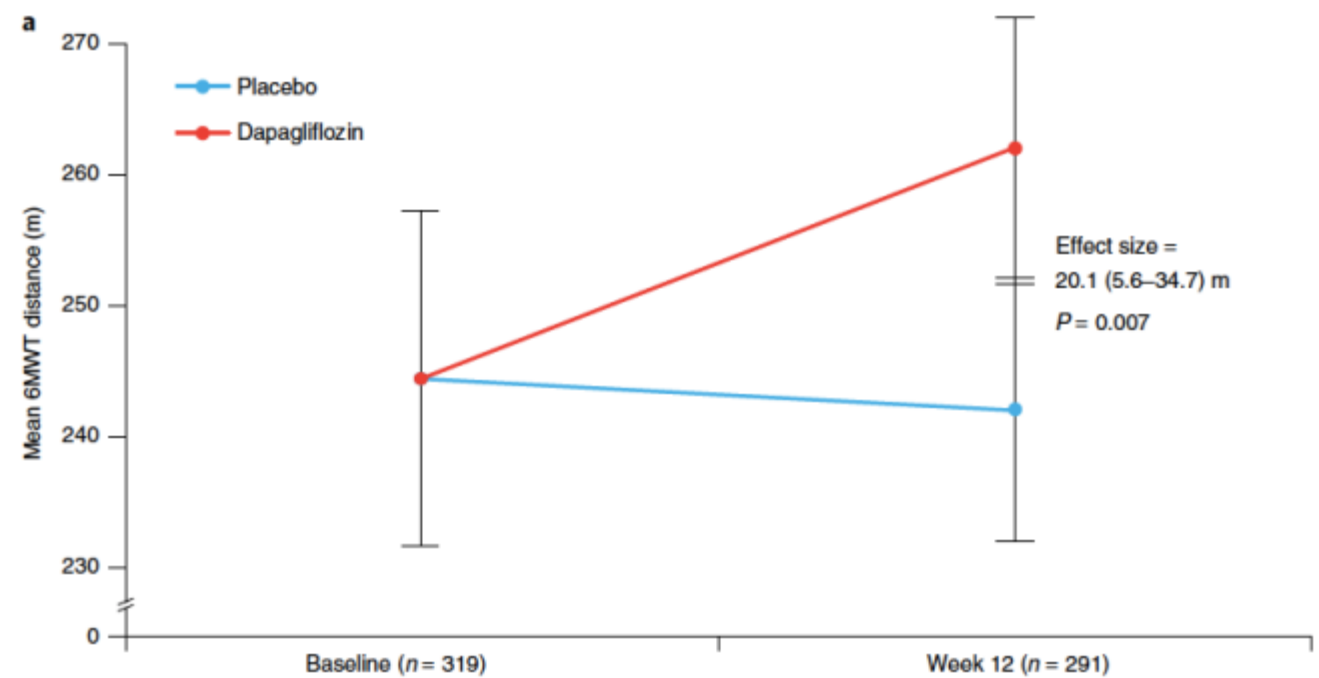
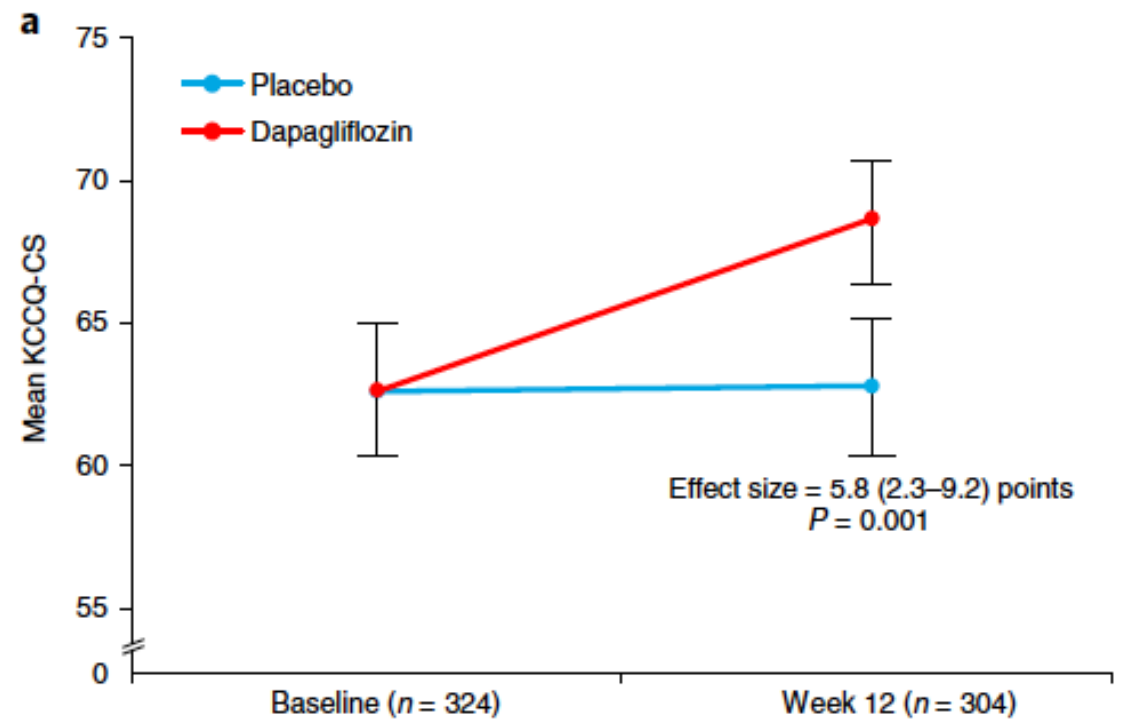
Primary Endpoint: Composite of CV death or heart failure hospitalization.



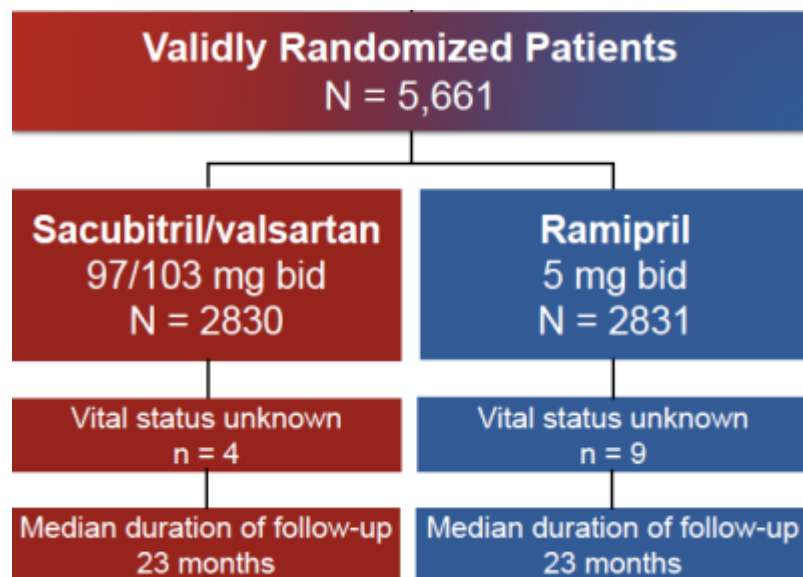
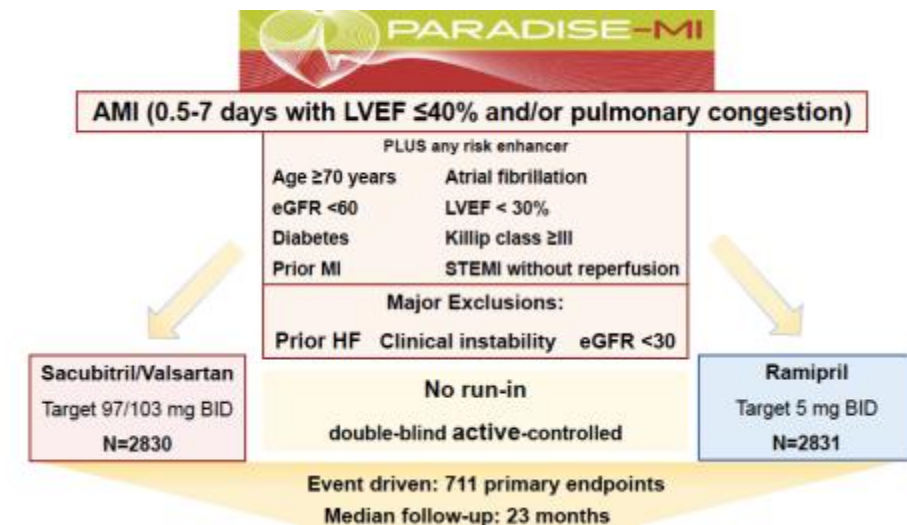
	Empagliflozin n=2997	Placebo n=2991	HR (95% CI)	P-value
Primary Composite Outcome: Composite of CV death or HF hospitalization	415 (13.8%)	511 (17.1%)	0.79 (0.69-0.90)	< 0.001
HF hospitalization	259 (8.6%)	352 (11.8%)	0.71 (0.60-0.83)	
Cardiovascular Death	219 (7.3%)	244 (8.2%)	0.91 (0.76-1.09)	
Secondary Outcomes specified in hierarchical testing procedure				
Total number of HF hospitalizations	407	541	0.73 (0.61-0.88)	< 0.001
eGR mean slope change per year (ml/min/1.73m ²)	-1.25±0.11	-2.62±0.11	1.36 (1.06-1.66)	< 0.0001
Results: Empagliflozin reduced the combined risk of cardiovascular death or heart failure hospitalization in patients with HFpEF by 21%, regardless of the presence or absence of diabetes. This benefit was consistent across pre-specified EF subgroups. Empagliflozin reduced total (first and recurrent) hospitalizations for HF by 27%.				

The SGLT2 inhibitor dapagliflozin in heart failure with preserved ejection fraction: a multicenter randomized trial (PRESERVED-HF trial)

324 pt randomized dapagliflozin vs placebo
EF 60%
FU 12 weeks

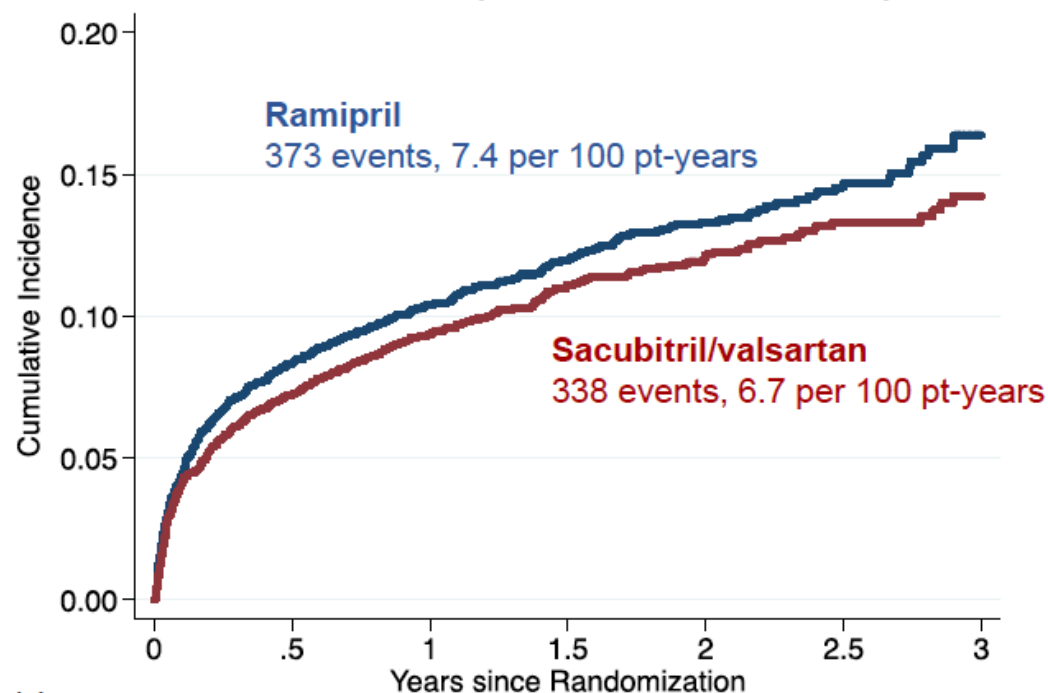


Angiotensin Receptor–Neprilysin Inhibition in Acute Myocardial Infarction

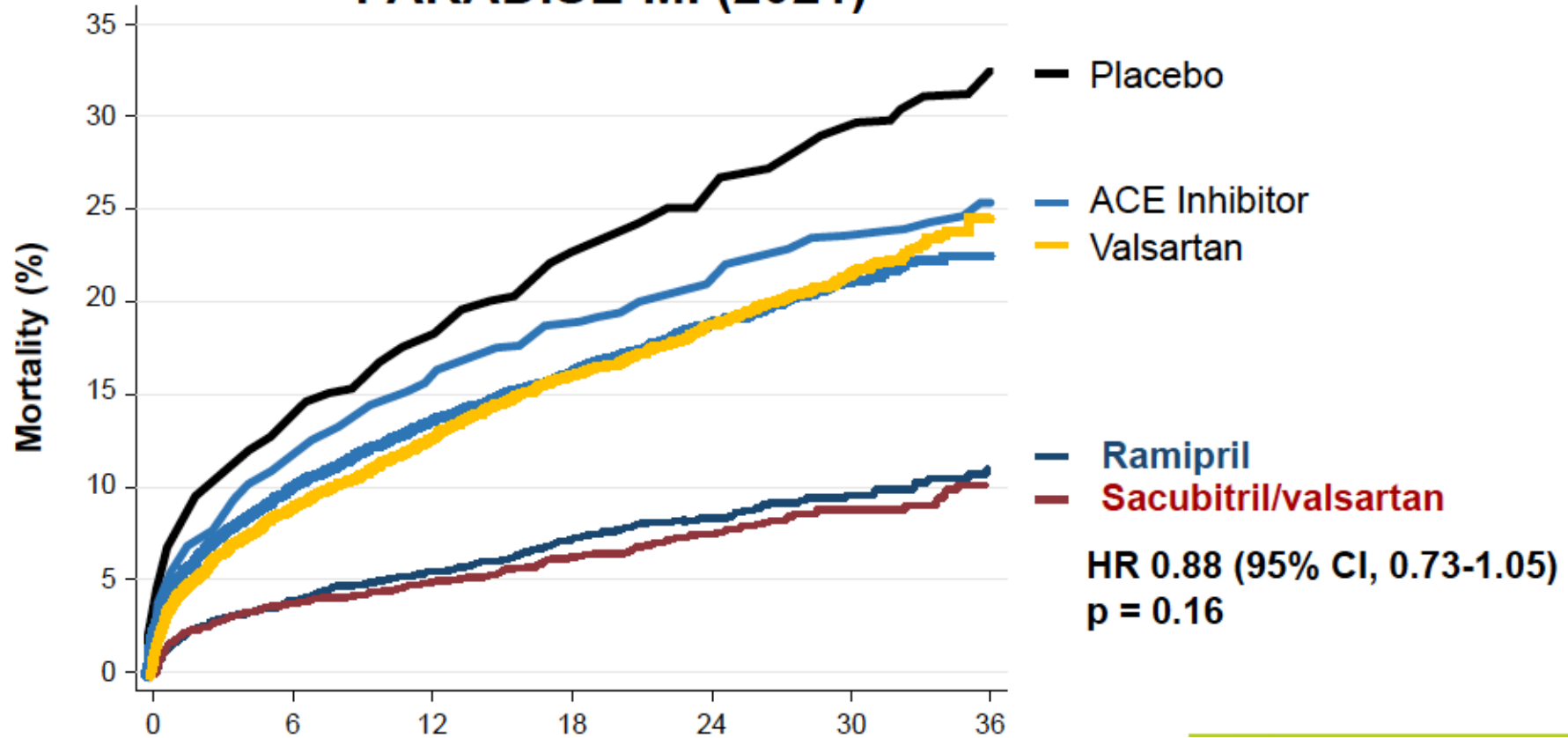


PARADISE-MI Primary Outcome

CV death, first HF hospitalization or outpatient HF



Deaths in SAVE, AIRE, TRACE (1990s), VALIANT (2003) and PARADISE-MI (2021)



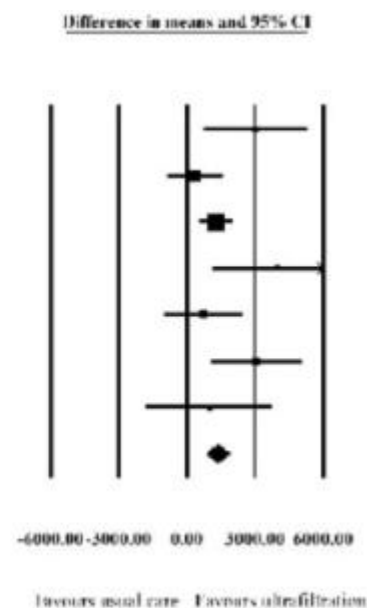
Pfefer M. ACC 2021

Ultrafiltration is better than diuretic therapy for volume-overloaded acute heart failure patients: a meta-analysis

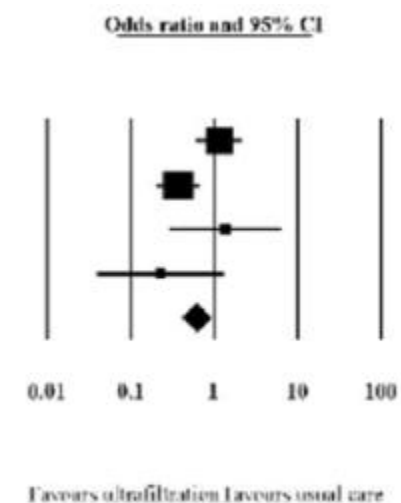
8 RCT UF vs standard care 801 HF pt

UF increases **fluid removal and weight loss** and **reduces rehospitalization and the risk of worsening heart failure** in congestive patients, suggesting ultrafiltration as a safe and effective treatment option for volume-overloaded heart failure patients.

Study name	Statistics for each study				p-Value
	Difference in means	Standard error	Lower limit	Upper limit	
Bart et al., 2005	3040.000	1152.009	781.927	5298.073	0.008
Bart et al., 2012	-361.000	620.893	-852.927	127.927	0.261
Costanzo et al., 2007	1360.000	367.606	579.330	2020.670	0.000
Costanzo et al., 2015	3000.000	1441.521	1171.671	6825.529	0.006
Giglioli et al., 2011	700.000	877.876	-1020.606	2420.606	0.425
Hanna et al., 2012	3018.000	990.762	1106.112	4989.858	0.002
Seker et al., 2016	990.000	1402.215	-1758.290	3778.290	0.480
	1372.529	266.786	839.659	1895.419	0.000



Study name	Statistics for each study				Events / Total	
	Odds ratio	Lower limit	Upper limit	p-Value	ultrafiltration	usual care
Bart et al., 2012	1.160	0.626	2.149	0.637	31 / 94	28 / 94
Costanzo et al., 2007	0.375	0.212	0.665	0.001	39 / 100	63 / 100
Costanzo et al., 2015	1.358	0.297	6.216	0.693	4 / 110	3 / 111
Hanna et al., 2012	0.229	0.040	1.309	0.007	2 / 17	7 / 19
	0.632	0.426	0.936	0.022		



Strain-Guided Management of Potentially Cardiotoxic Cancer Therapy

GLS-guided CPT **prevents reduction in LVEF** and development of CTRCD in high-risk patients undergoing potentially cardiotoxic chemotherapy, compared with usual care

In patients at risk of CTRCD, initiation of cardioprotective therapy (CPT) is constrained by the **low sensitivity of ejection fraction (EF) for minor changes in left ventricular (LV) function**. Global longitudinal strain (GLS) is a robust and sensitive marker of LV dysfunction, but existing observational data have been insufficient to support a routine GLS-guided strategy for CPT

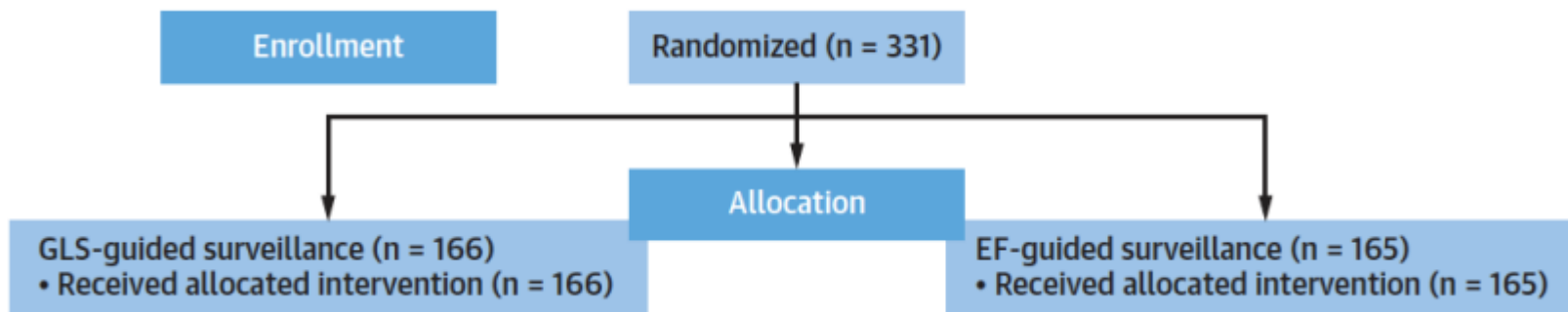
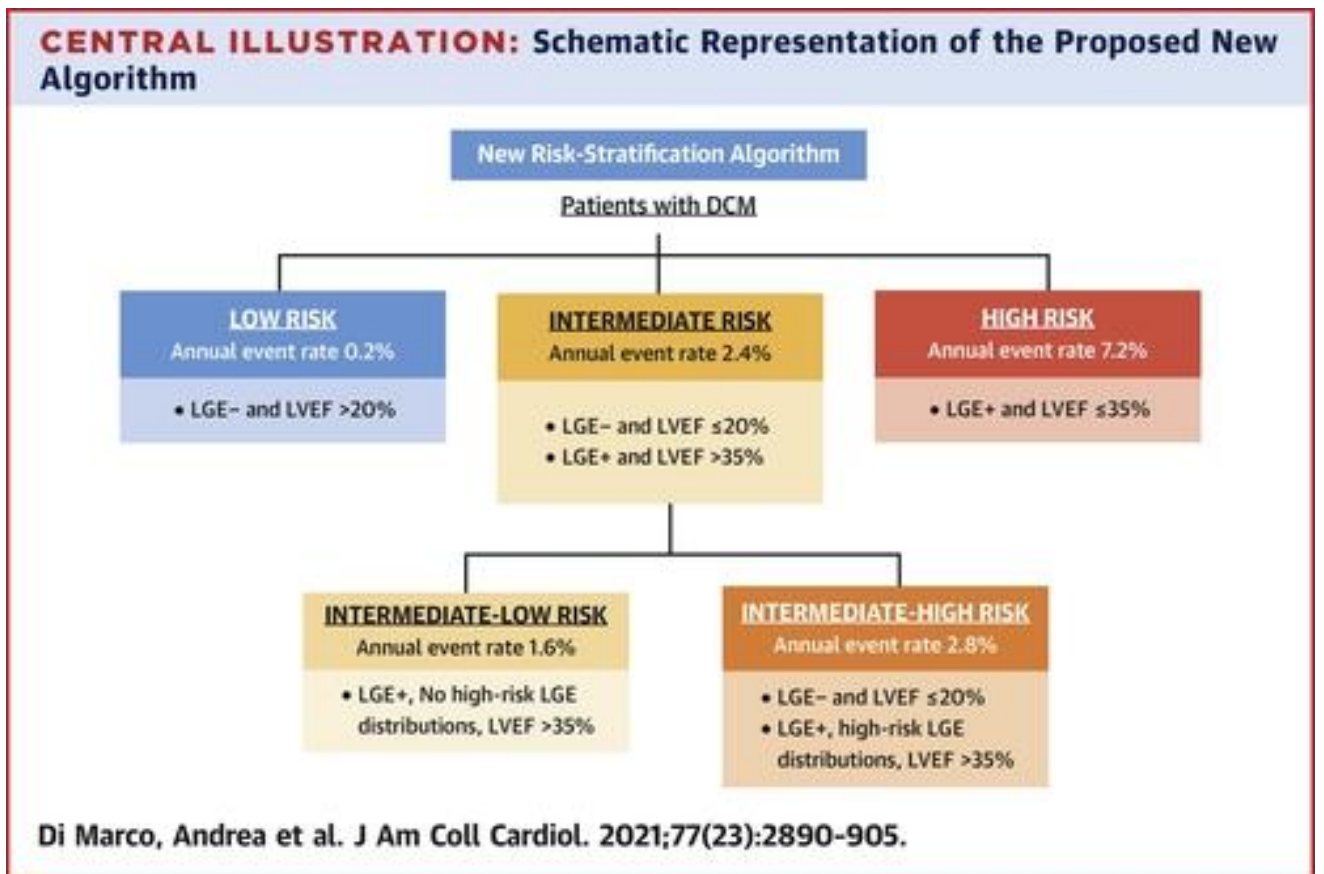
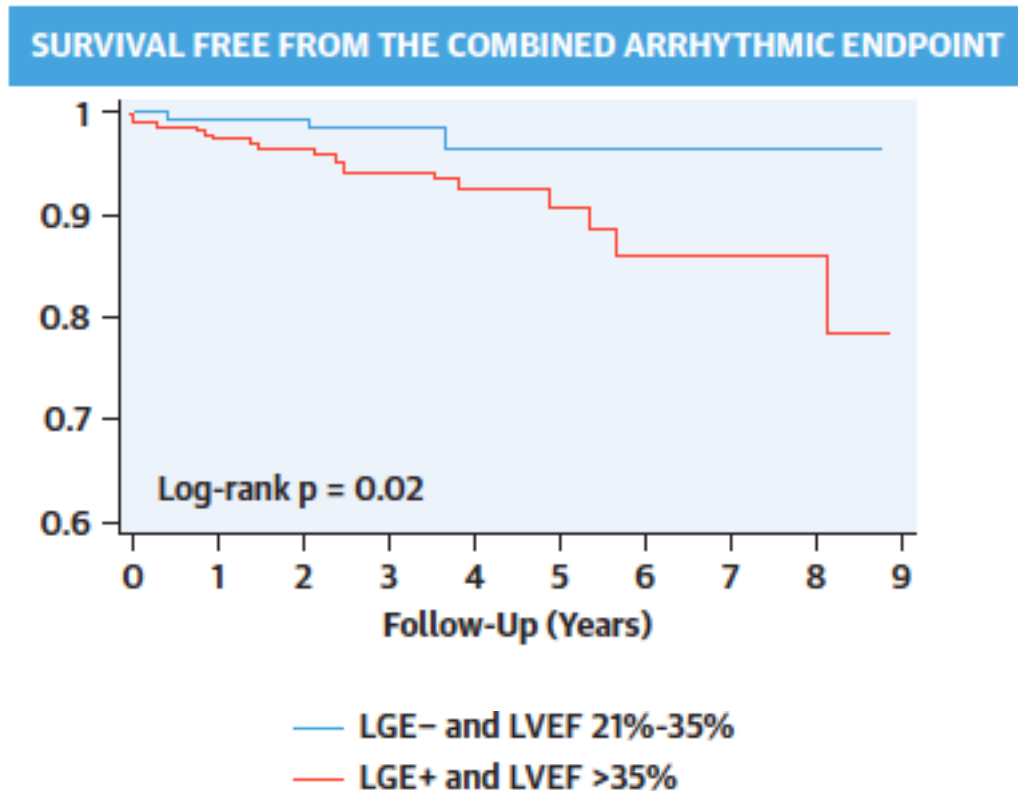


TABLE 2 Changes in LVEF and GLS Between Baseline and the 1-Year Follow-Up

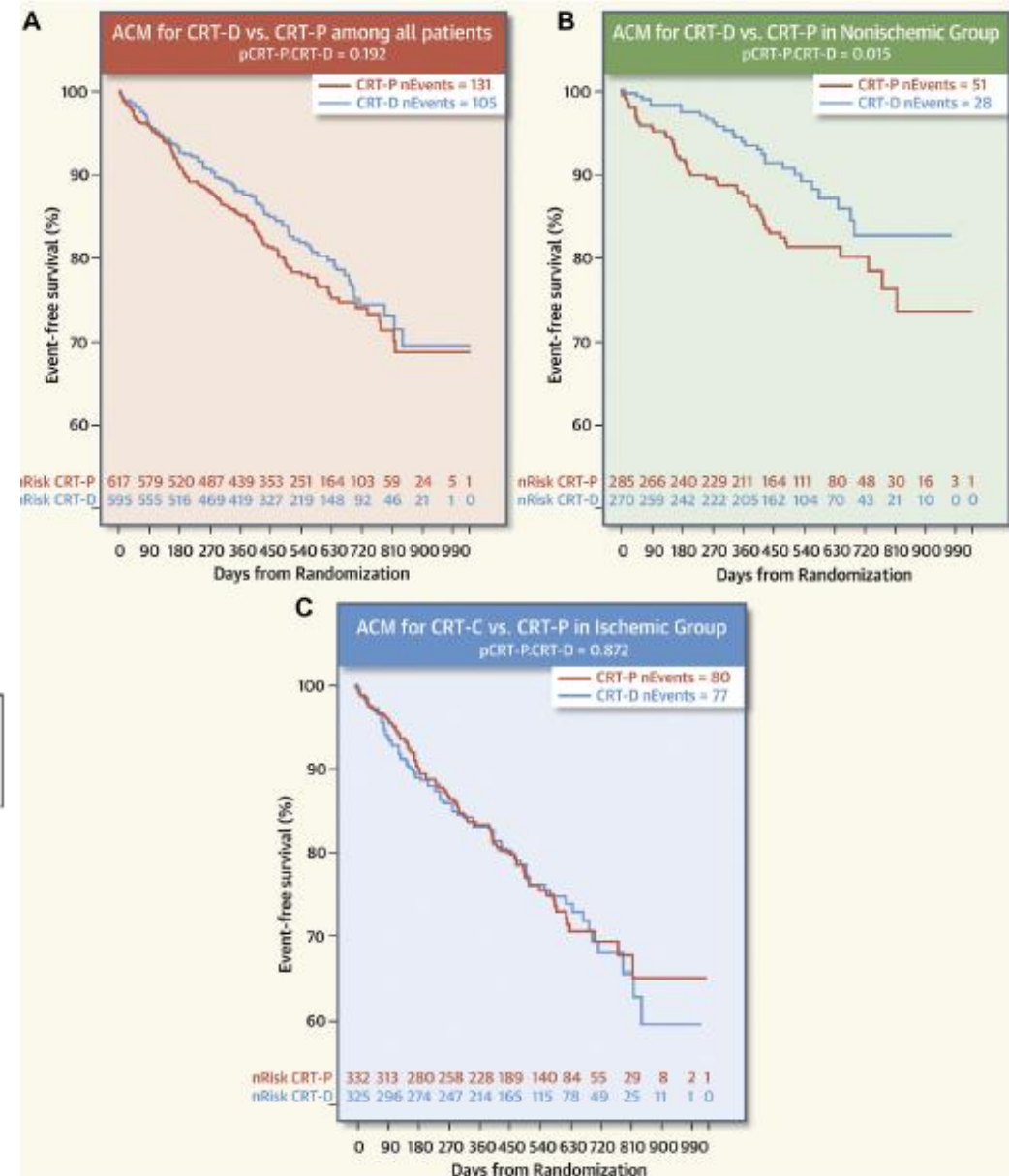
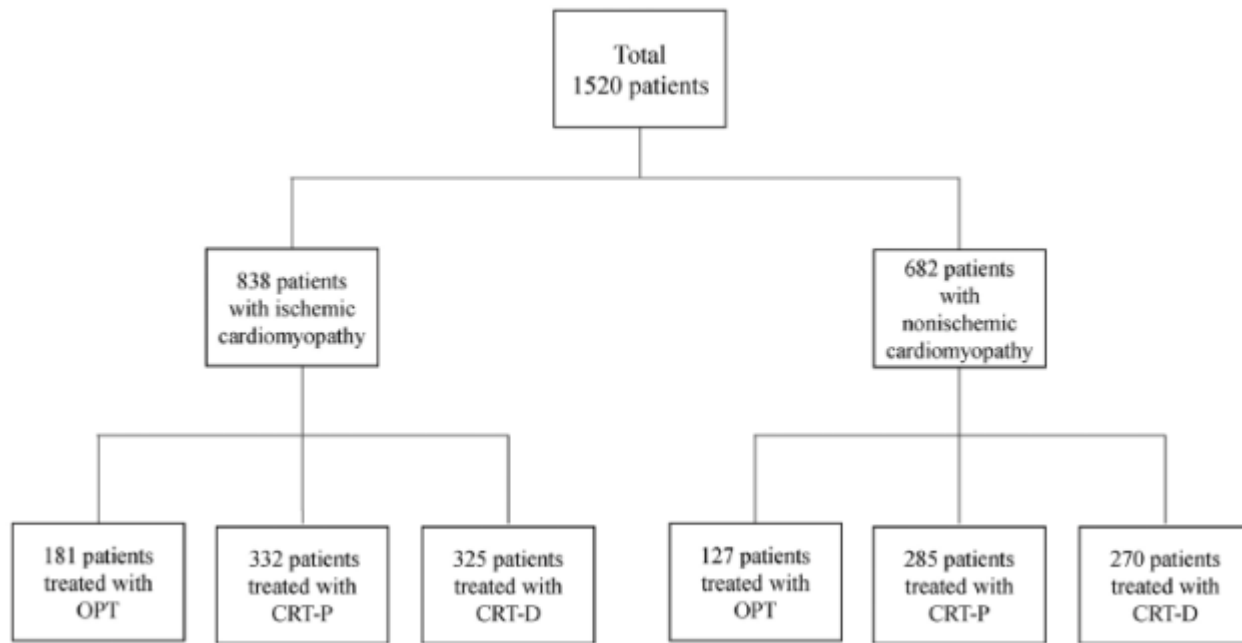
	EF Guided			GLS Guided			Difference, % (95% CI)	p Value†
	n	LV Function, % (95% CI)	p Value*	n	LV Function, % (95% CI)	p Value*		
Core laboratory 3D EF, %								
Baseline	153	58 (57 to 59)		154	59 (58 to 60)		-1.2 (-2.6 to 0.2)	0.10
1 year	153	55 (54 to 56)		154	57 (56 to 58)		-1.5 (-3.0 to 0.0)	0.05
1 year - baseline	153	-3.0 (-1.8 to -4.2)	<0.001	154	-2.7 (-1.7 to -3.8)	<0.001	0.3 (-1.3 to 1.9)	0.69

Improved Risk Stratification for Ventricular Arrhythmias and Sudden Death in Patients With Nonischemic Dilated Cardiomyopathy

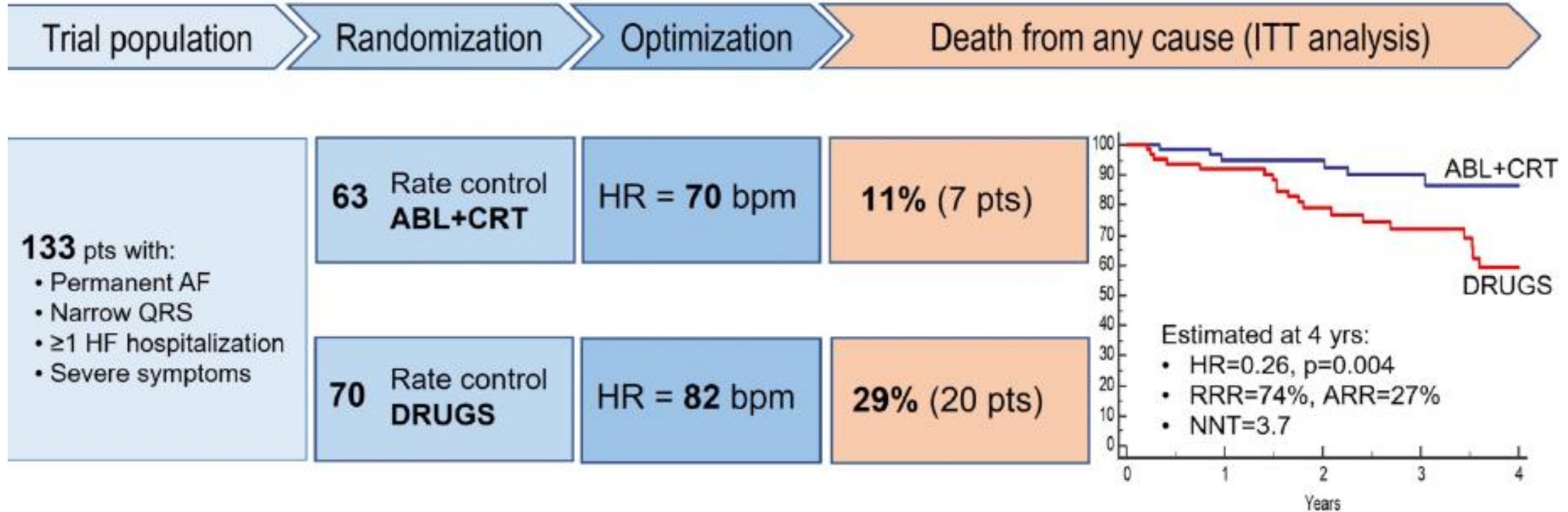
Αναδρομική μελέτη καταγραφής 1165 ασθενών με διατακτική μυοκαρδιοπάθεια που υποβλήθηκαν σε CMR και διάμεσο χρόνο παρακολούθησης 36 μήνες



The Addition of a Defibrillator to Resynchronization Therapy Decreases Mortality in Patients With Nonischemic Cardiomyopathy

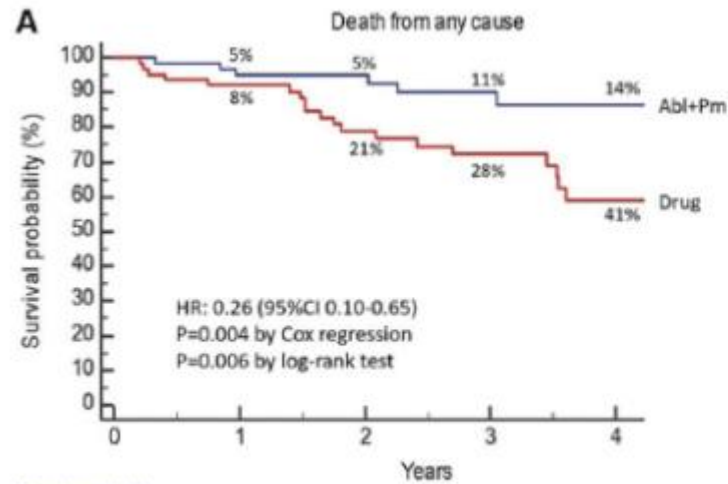


AV junction ablation and cardiac resynchronization for patients with permanent atrial fibrillation and narrow QRS: the APAF-CRT mortality trial



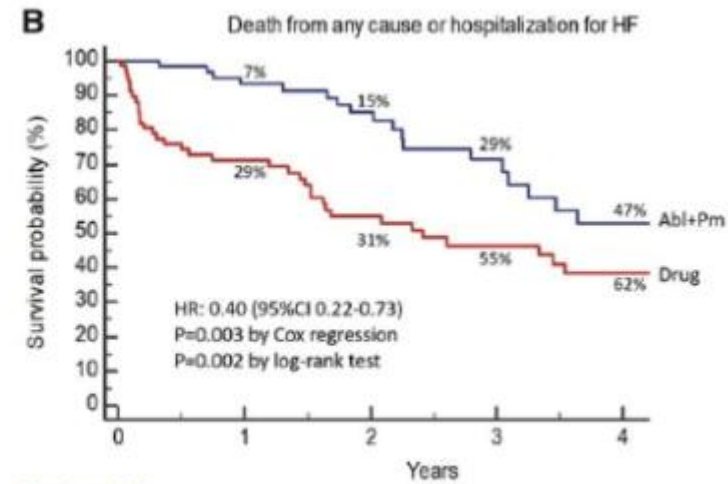
60 % EF>35%

AV junction ablation and cardiac resynchronization for patients with permanent atrial fibrillation and narrow QRS: the APAF-CRT mortality trial



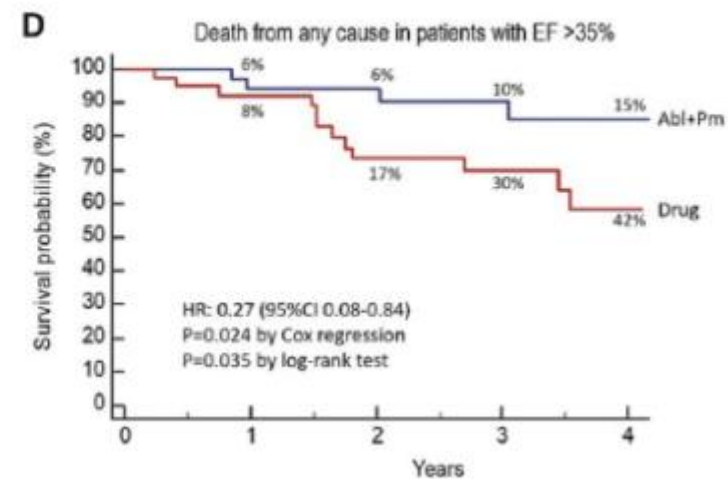
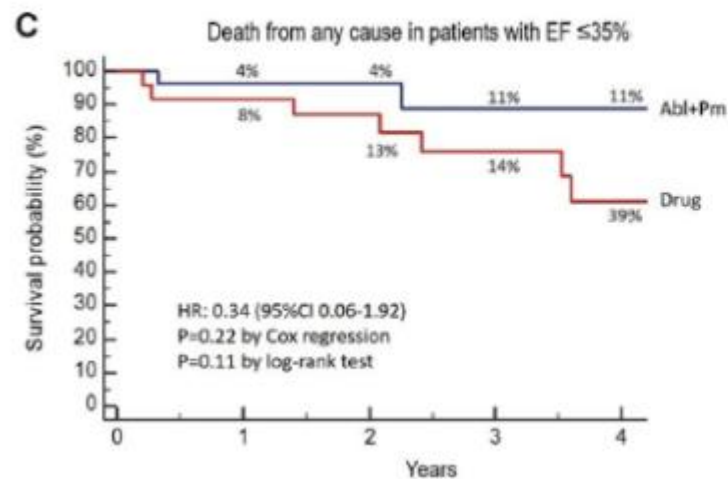
Number at risk

Abl+Pm	83	52	41	27	12
Drug	70	56	38	29	9

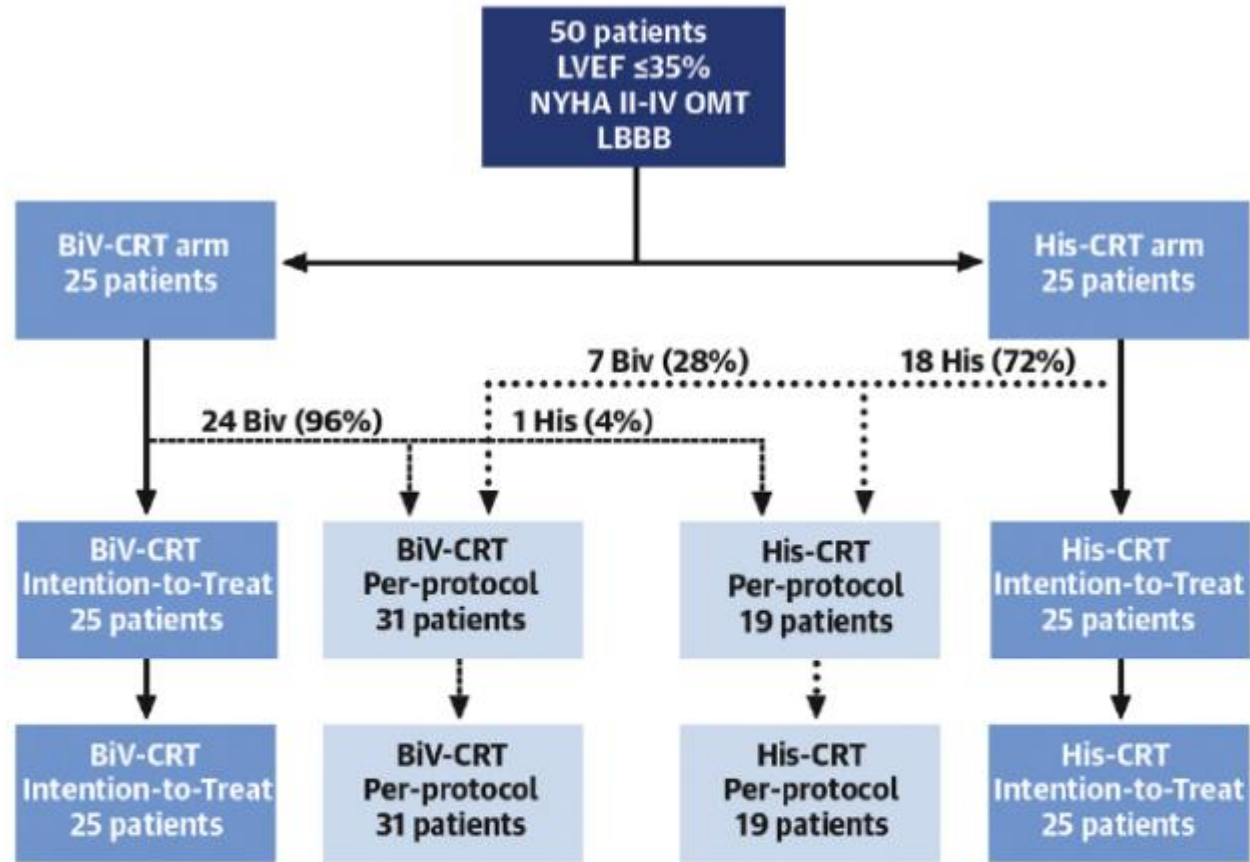


Number at risk

Abl+Pm	63	51	38	21	9
Drug	70	44	27	21	7

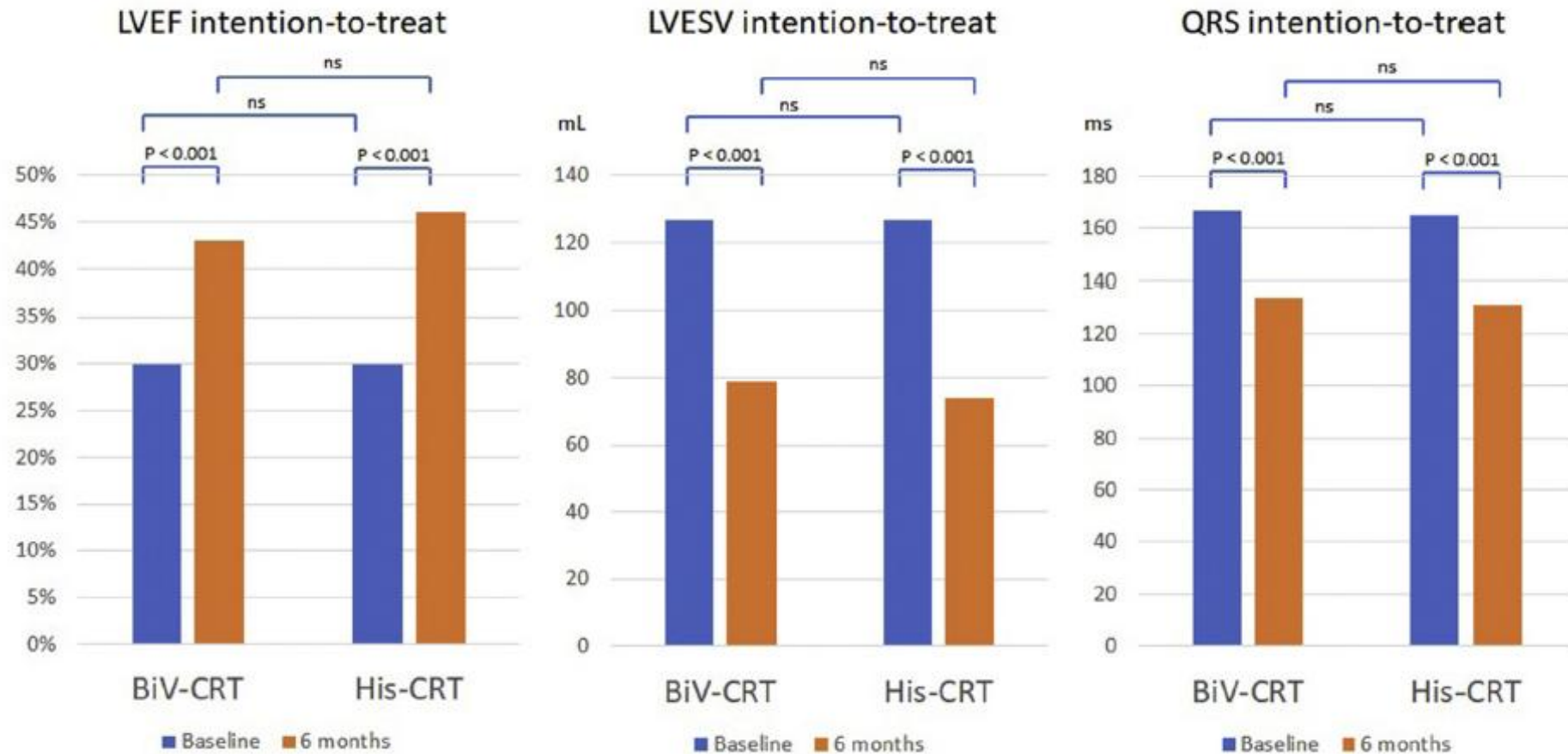


A Randomized Trial of His Pacing Versus Biventricular Pacing in Symptomatic HF Patients With Left Bundle Branch Block (His-Alternative)



Pacing Thresholds	Implantation (V at 1 ms dur)	6-month FU (V at 1 ms dur)
LV-leads (n = 31)	1.1 ± 0.7	1.5 ± 0.6*
His-leads (n = 19)	2.2 ± 1.2	2.4 ± 1.6*

A Randomized Trial of His Pacing Versus Biventricular Pacing in Symptomatic HF Patients With Left Bundle Branch Block (His-Alternative)



Ευχαριστώ για την προσοχή