

Os estudos de 2022/23 que mudam a prática na
perspetiva da

Cardiologia

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Conflitos de interesse:

Sem conflitos de interesse relacionados com a apresentação actual



The New England Journal of Medicine

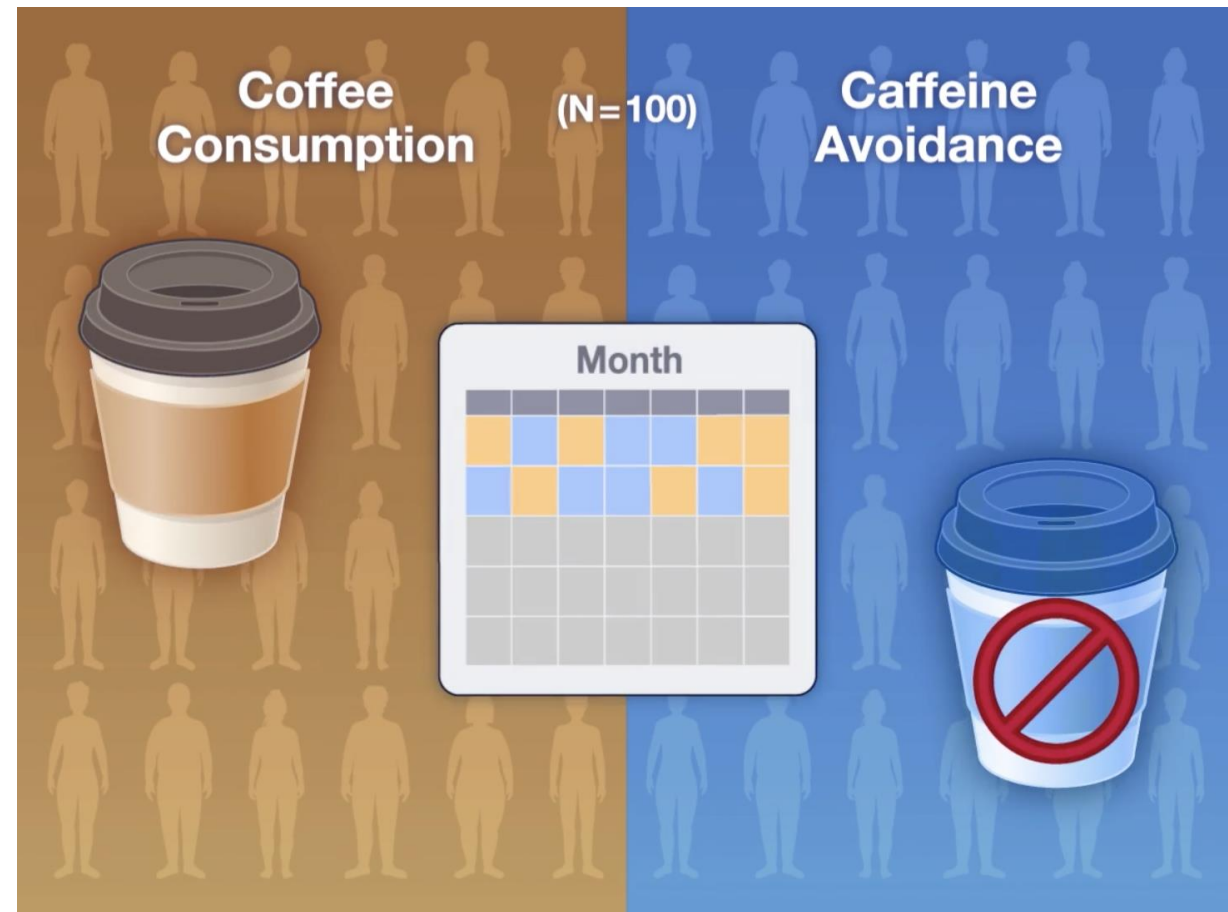
Acute Health Effects of Coffee

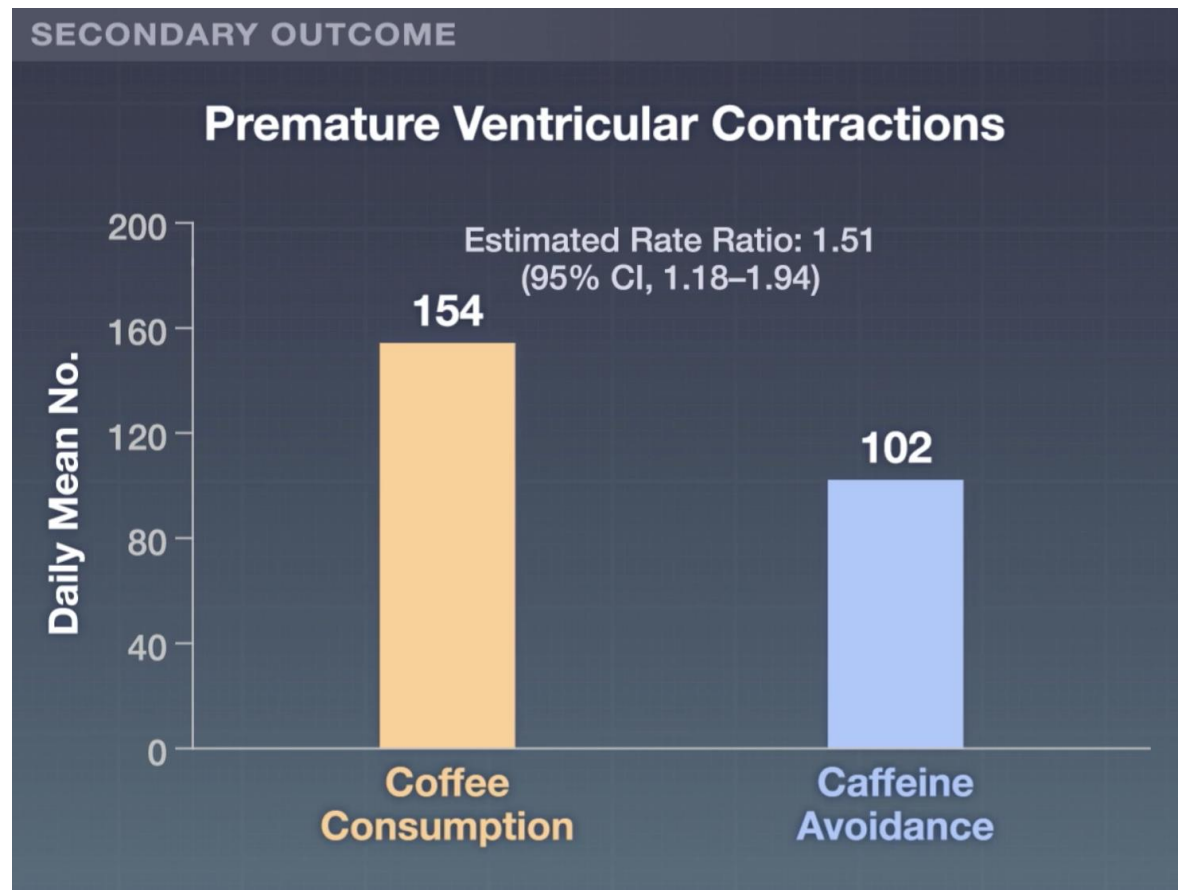
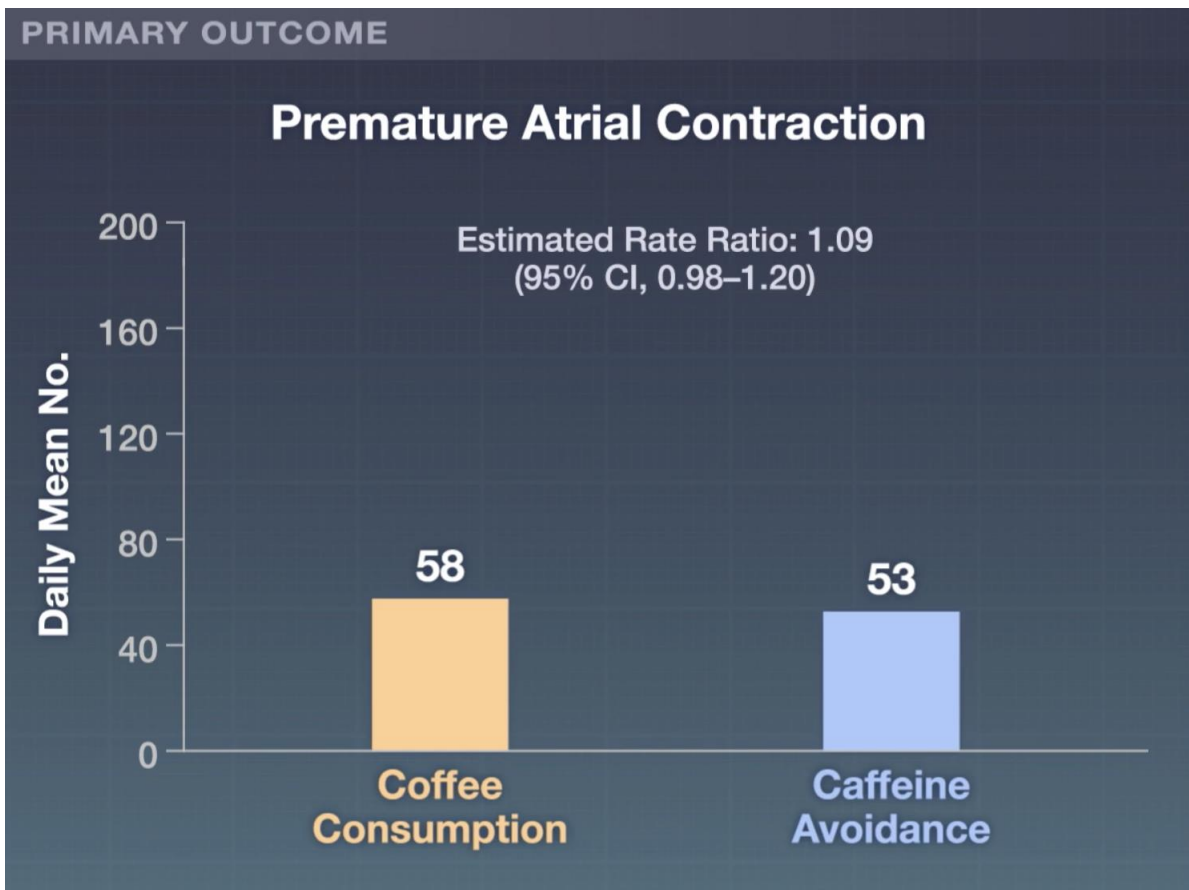
KEY POINTS FROM

Acute Effects of Coffee Consumption on Health among Ambulatory Adults

by G.M. Marcus et al.

MARCH 23, 2023







Estudo TIME



21.104



5.2 anos

Os estudos de 2022/23 que mudam a prática na perspectiva da **Cardiologia**

Study objectives



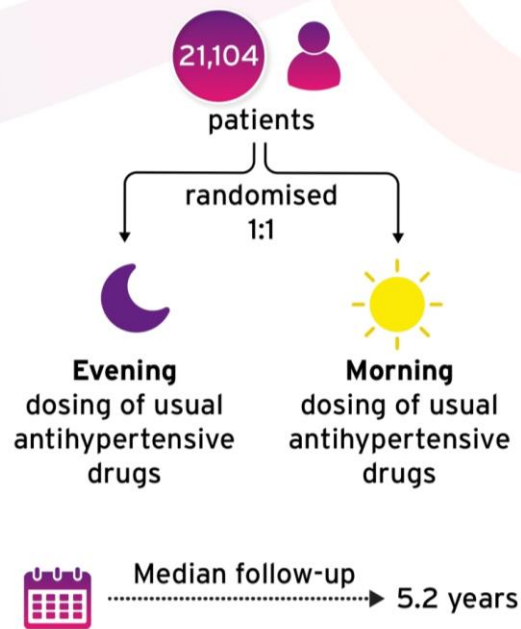
The TIME trial tested whether evening dosing of antihypertensive medication improved major cardiovascular outcomes compared with morning dosing.



Who and what?

Population

Adults taking at least one antihypertensive medication and with a valid email address were recruited by advertising in the community, from primary and secondary care, and from databases of consented patients in the UK.



Composite primary outcome

Hospitalisation for nonfatal myocardial infarction or nonfatal stroke, or vascular death, in the intention-to-treat population.

Rate%



Unadjusted hazard ratio 0.95
95% CI 0.83-1.10
p=0.53

- The results did not vary in pre-specified subgroup analyses.
- Taking medication in the evening was not harmful.

Estudo TIME



21.104



5.2 anos



The **NEW ENGLAND JOURNAL** of MEDICINE

RESEARCH SUMMARY

Chlorthalidone vs. Hydrochlorothiazide for Hypertension— Cardiovascular Events

Ishani A et al. DOI: 10.1056/NEJMoa2212270

CLINICAL PROBLEM

Thiazide diuretics are first-line treatments for hypertension. Guidelines have preferentially recommended chlorthalidone, although Medicare data suggest that prescriptions for hydrochlorothiazide far exceed those for chlorthalidone. Whether chlorthalidone is superior to hydrochlorothiazide for preventing major adverse cardiovascular events is unclear.



- Pressuposto de que a clorotalidona é mais eficaz
- Menor taxa de eventos CV
- Maior eficiência diurética pelo tempo de semivida
- Maior redução da TA nocturna



13.523

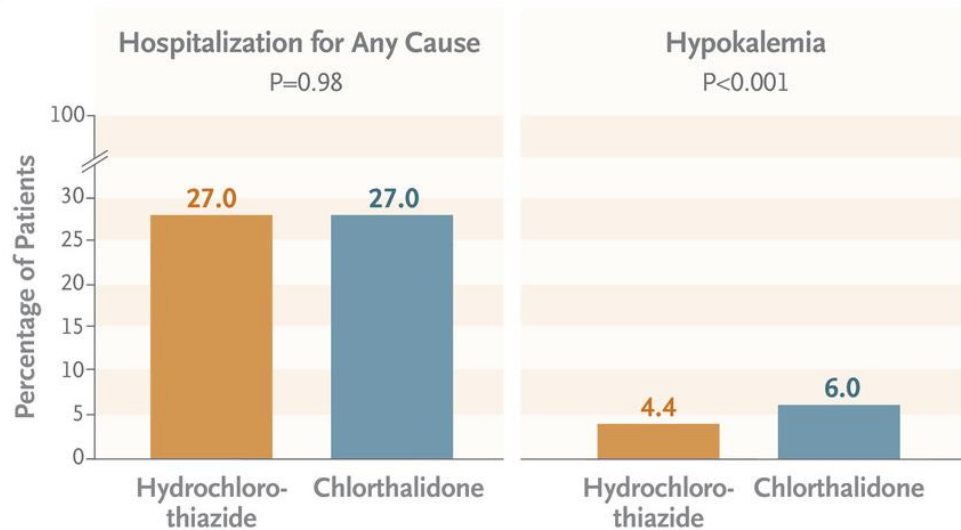


2.4 anos



Os estudos de 2022/23 que mudam a prática na perspectiva da Cardiologia

Safety Events



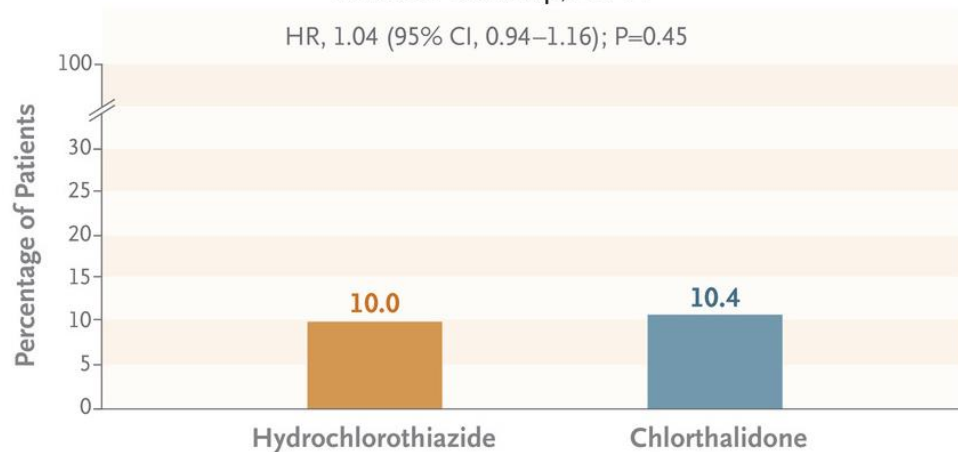
Tensão arterial no consultório similar em ambos os grupos

Mais hipocaliemia no grupo Clorotalidona

Nonfatal Adverse Cardiovascular Events and Non-Cancer-Related Death

Median Follow-up, 2.4 Yr

HR, 1.04 (95% CI, 0.94–1.16); P=0.45



Não houve diferença no endpoint primário:

- Ausência de superioridade da clorotalidona comparativamente com hidroclorotiazida para a prevenção de eventos cardiovasculares não fatais ou morte

FRAIL-AF: Warfarin Beats NOACs in Frail Elderly With AF

In a surprise, for this population excluded from prior RCTs, switching from the VKA to a NOAC led to more bleeding.

by [Shelley Wood](#) | AUGUST 28, 2023



NOACs são preferíveis em vez de antagonistas da Vitamina K mas existe pouca evidencia em doentes frágeis/idosos.



1.330
Idade média 83 anos



2.4 anos

- Continuar com VKA INR 2-3 ou switch para NOAC
- Foram utilizados os 4 diferentes NOACs, mas sem potencia estatística para avaliar diferenças entre eles

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2.4 anos

- Continuar com VKA INR 2-3 ou switch para NOAC
- Foram utilizados os 4 diferentes NOACs, mas sem potencia estatística para avaliar diferenças entre eles

- Estudo de superioridade – em que foi observado o contrario - sendo suspenso precocemente por **segurança e futilidade**
- **69% mais** hemorragia no grupo randomizado para NOAC

2020 **POPULAR AGE TRIAL** **M**

Clopidogrel versus ticagrelor or prasugrel in patients aged 70 years or older with non-ST-elevation acute coronary syndrome

multicenter, randomized controlled trial

Objective: To evaluate the effectiveness of clopidogrel compared with ticagrelor or prasugrel among patients ≥ 70 years of age being treated for a non-ST-segment elevation acute coronary syndrome (NSTE-ACS)

1002 patients

Inclusion criteria: Patients ≥ 70 years with non-ST-segment elevation acute coronary syndrome (NSTE-ACS) < 72 hours

Clopidogrel group (n=500) **VS** **Ticagrelor or prasugrel group (n=502)**

PRIMARY OUTCOMES

18 PLATElet inhibition and patient Outcomes (PLATO) major & minor bleeding %
HR 0.71; 95% CI, 0.54 to 0.94; P=0.02 for superiority

28 Net clinical benefit outcome of all-cause death, MI, Stroke, PLATO major & minor bleeding %
Diff -4; 95% CI, -10.0 to 1.4; P=0.03 for non-inferiority

24

32

SECONDARY OUTCOMES

8 PLATO major bleeding %
P=0.11

12

0 Fatal bleeding %
P=0.03

1.0

Conclusion: Clopidogrel is a favourable alternative to ticagrelor, because it leads to fewer bleeding events without an increase in the combined endpoint of all-cause death, myocardial infarction, stroke, and bleeding



ESC

European Society
of Cardiology

European Heart Journal (2023) **00**, 1–107

<https://doi.org/10.1093/eurheartj/ehad191>

ESC GUIDELINES

2023 ESC Guidelines for the management of acute coronary syndromes

**Developed by the task force on the management of acute coronary
syndromes of the European Society of Cardiology (ESC)**

able, or in some patients considered otherwise at HBR (e.g. ≥ 1 major
or ≥ 2 minor ARC-HBR criteria).^{233,240–242} In addition, the use of clopi-
dogrel may be considered in older patients (e.g. ≥ 70 years).^{242,243}

Prasugrel should be considered in preference to ticagrelor for ACS

The **NEW ENGLAND**
JOURNAL of MEDICINE

ESTABLISHED IN 1812

OCTOBER 13, 2022

VOL. 387 NO. 15

Percutaneous Revascularization for Ischemic Left Ventricular Dysfunction

Divaka Perera, M.D., Tim Clayton, M.Sc., Peter D. O’Kane, M.D., John P. Greenwood, Ph.D., Roshan Weerackody, Ph.D., Matthew Ryan, Ph.D., Holly P. Morgan, M.B., B.Ch., Matthew Dodd, M.Sc., Richard Evans, B.A., Ruth Canter, M.Sc., Sophie Arnold, M.Sc., Lana J. Dixon, Ph.D., Richard J. Edwards, Ph.D., Kalpa De Silva, Ph.D., James C. Spratt, M.D., Dwayne Conway, M.D., James Cotton, M.D., Margaret McEntegart, Ph.D., Amedeo Chiribiri, Ph.D., Pedro Saramago, Ph.D., Anthony Gershlick, M.D., Ajay M. Shah, M.D., Andrew L. Clark, M.D., and Mark C. Petrie, M.D., for the REVIVED-BCIS2 Investigators*

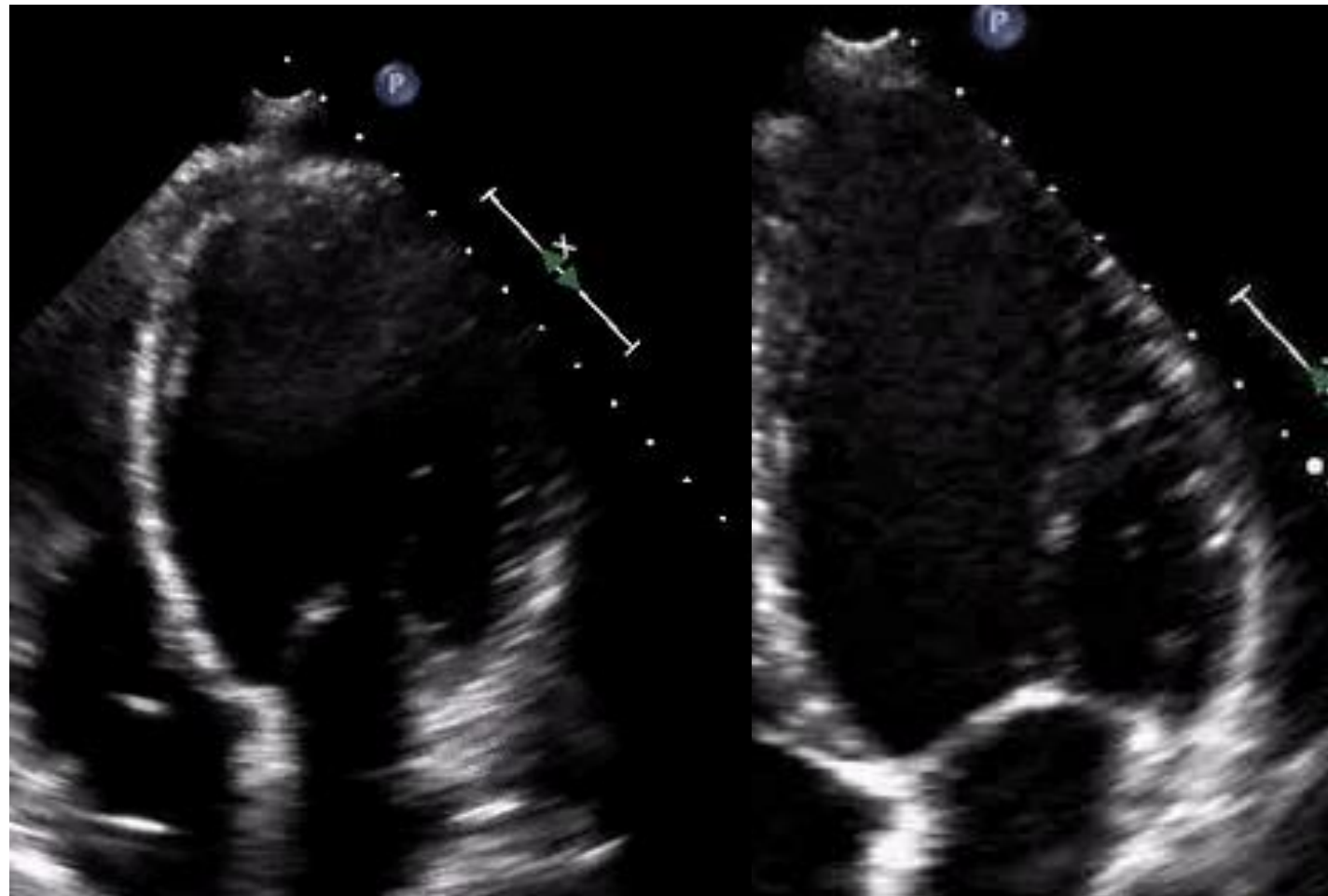
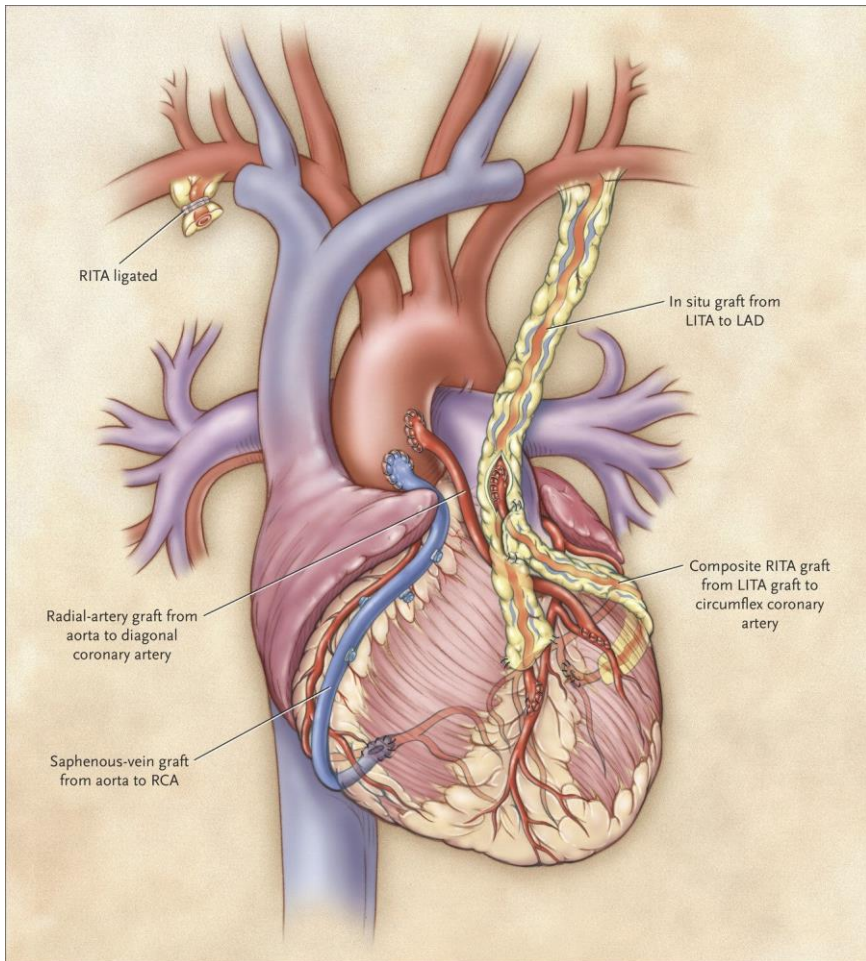


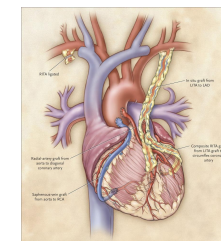
700 com ICFER de etiologia isquémica **com viabilidade** e doença **corrigível por intervenção coronária percutânea (ICP)**



41 meses
2013 a 2020

Endpoint primário - Morte de qualquer causa ou hospitalização por insuficiência cardíaca



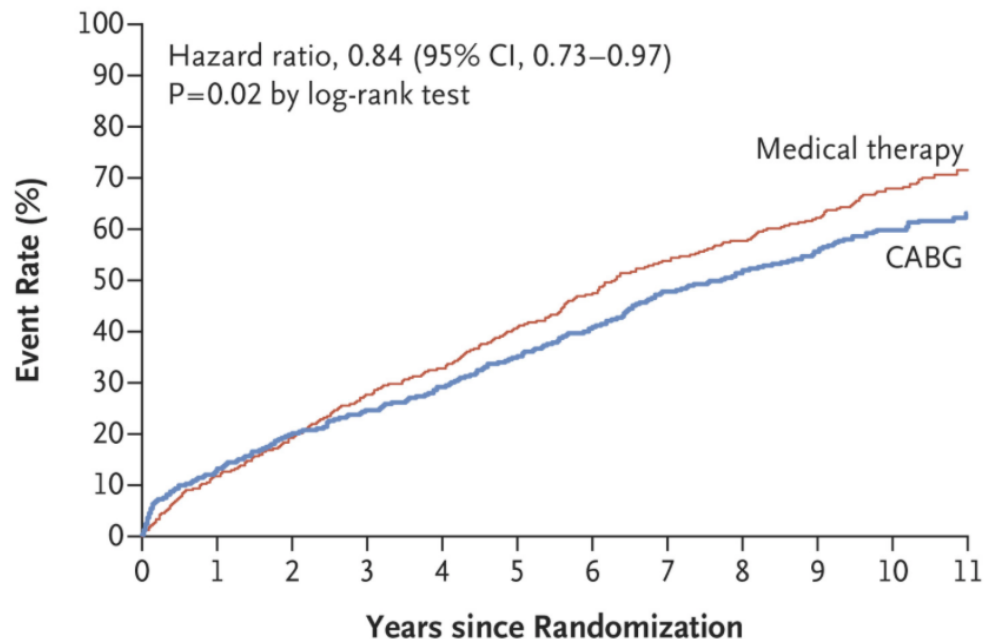


Previamente no estudo STICH (ano 2000)

Doentes com doença coronária severa e disfunção ventricular esquerda (média de idade de 59 anos)

Randomizados para um braço de tratamento cirúrgico vs terapêutica médica farmacológica otimizada (a possível na altura)

A Death from Any Cause (Primary Outcome)



Observou-se **que não havia diferença** entre os dois grupos no endpoint de morte por qualquer causa aos 5 anos (influenciada pela mortalidade cirúrgica inicial (3x maior a 30 dias))

Mas aos 10 anos observou-se **um benefício na mortalidade de qualquer causa** no braço cirúrgico.

No. at Risk

Medical therapy	602	532	487	435	404	357	315	274	248	164	82	37
CABG	610	532	487	460	432	392	356	312	286	205	103	42

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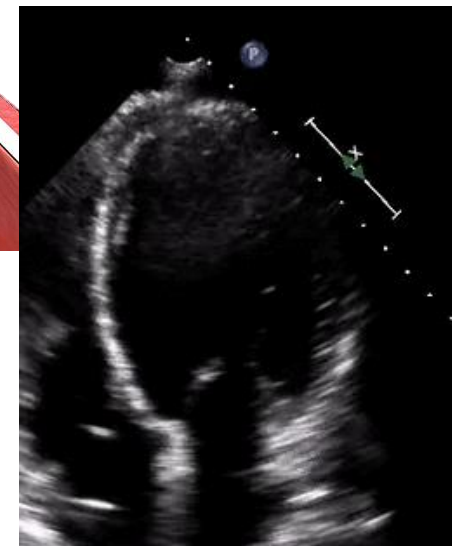
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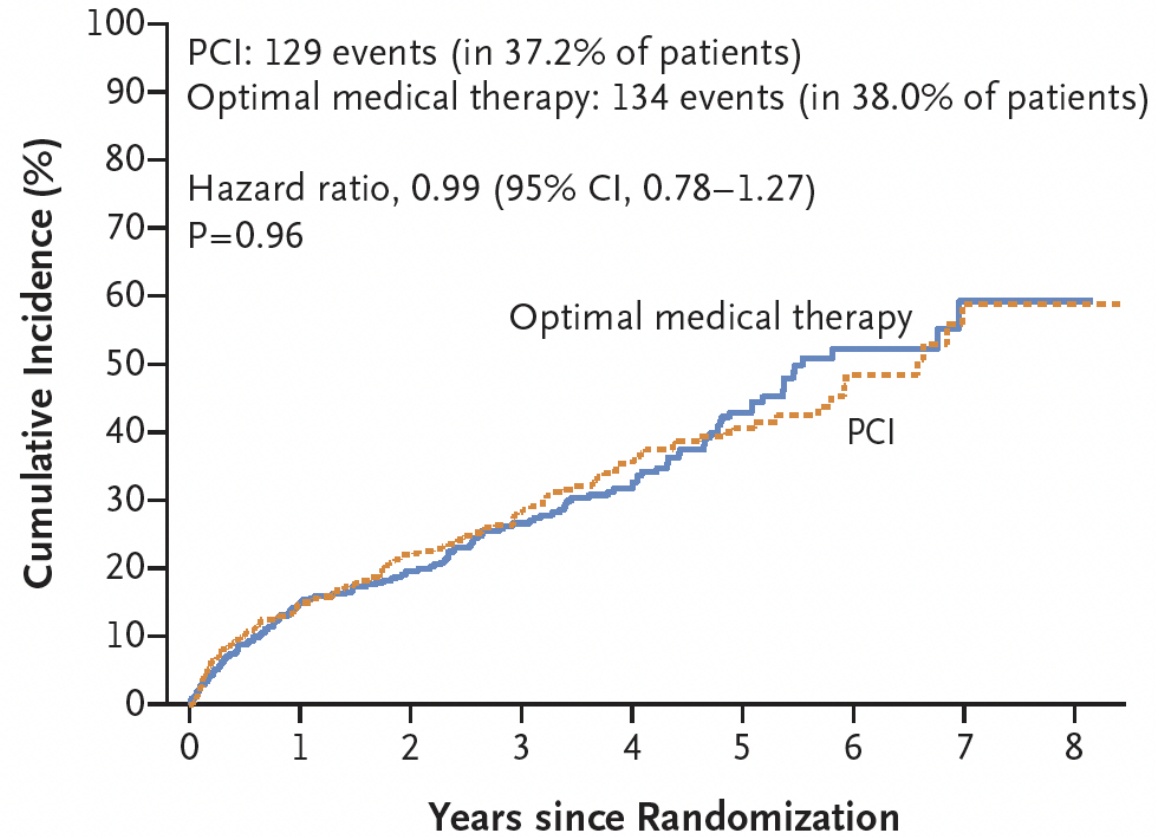


Poderia a revascularização coronária percutânea mitigar a mortalidade inicial do tratamento cirúrgico e permitir demonstrar diferença vs estratégia de terapêutica média otimizada actual?

Os estudos de 2022/23 que mudam a prática na perspetiva da Cardiologia

Table 1. Demographic and Clinical Characteristics of the Patients at Baseline.*

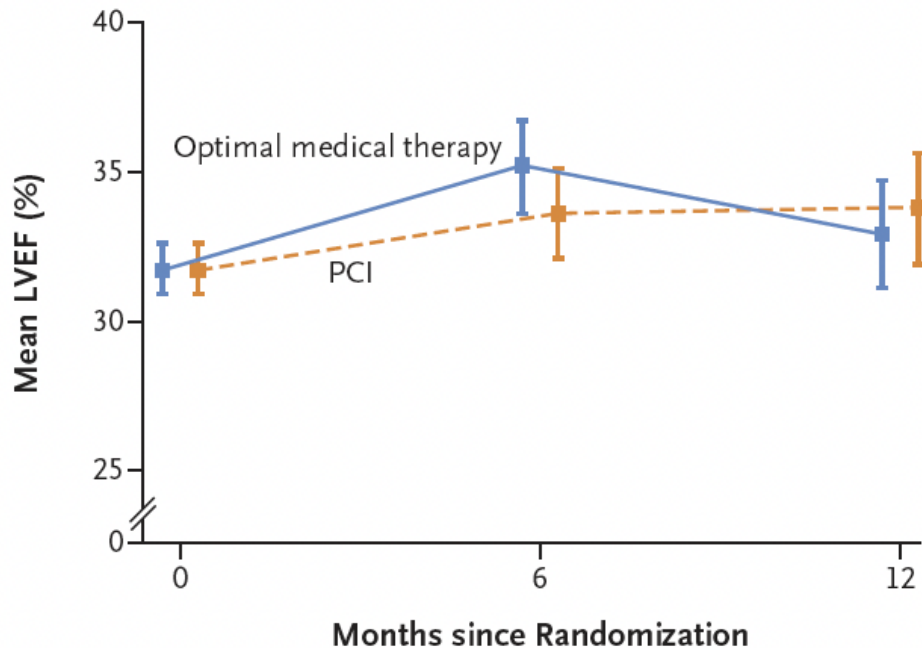
Characteristic	PCI (N= 347)	Optimal Medical Therapy (N= 353)
Age — yr	70.0±9.0	68.8±9.1
Male sex — no. (%)	302 (87)	312 (88)
Race — no. (%)†		
White	306 (88)	328 (93)
Asian	32 (9)	17 (5)
Black	3 (1)	3 (1)
Mixed, other, or not reported	6 (2)	5 (1)
Body-mass index‡	28.4±5.5	28.7±5.4
Hypertension — no./total no. (%)	184/347 (53)	207/352 (59)
Diabetes — no. (%)	136 (39)	153 (43)
Current or previous smoker — no. (%)	243 (70)	267 (76)
Previous myocardial infarction — no. (%)	175 (50)	197 (56)
Previous PCI — no. (%)	66 (19)	76 (22)
Previous CABG — no. (%)	12 (3)	22 (6)
NYHA functional class — no./total no. (%)§		
I or II	265/345 (77)	248/350 (71)
III or IV	80/345 (23)	102/350 (29)
CCS angina class — no./total no. (%)¶		
No angina	228/346 (66)	236/351 (67)
I or II	111/346 (32)	107/351 (30)
III	7/346 (2)	8/351 (2)
Left ventricular ejection fraction — %	27.0±6.6	27.0±6.9
Coronary artery disease characteristic		
Median BCIS jeopardy score (IQR)**	10 (8–12)	10 (8–12)
Left main coronary artery disease — no./total no. (%)	50/346 (14)	45/352 (13)
Three-vessel coronary artery disease — no./total no. (%)	133/346 (38)	148/352 (42)
Two-vessel coronary artery disease — no. (%)	178 (51)	166 (47)
Median NT-proBNP — pg/ml (IQR)	1376 (697–3426)	1461 (712–3365)



No. at Risk

PCI	347	295	262	179	130	80	32	14	3
Optimal medical therapy	353	299	276	191	142	82	33	10	1

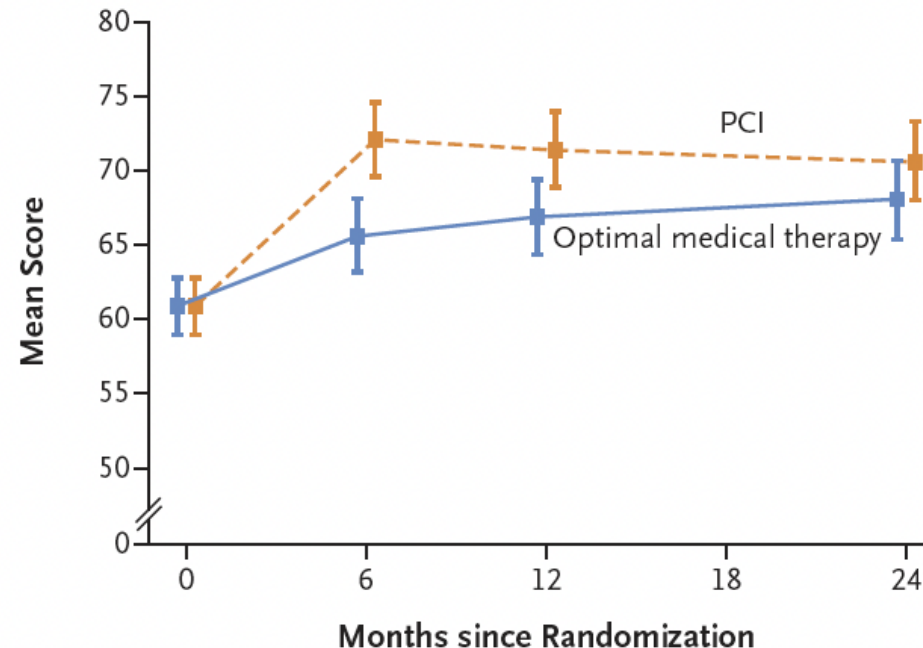
A Echocardiographic Estimates of LVEF



No. of Patients

PCI	264	276	262
Optimal medical therapy	276	264	267

B KCCQ Overall Summary Score



No. of Patients

PCI	319	270	268	228
Optimal medical therapy	318	285	268	228



Percutaneous Revascularization for Ischemic Left Ventricular Dysfunction

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Limitações

Follow-up curto? Seleção de doentes para CABG?

Pelos resultados:

Temos de questionar o próprio conceito de miocárdio hibernado – vale a pena pesquisar viabilidade (?)

Revascularizar de forma percutânea doentes com DAC severa **mesmo com** evidência de viabilidade **não** parece melhorar **resultados clínicos**

THE LANCET

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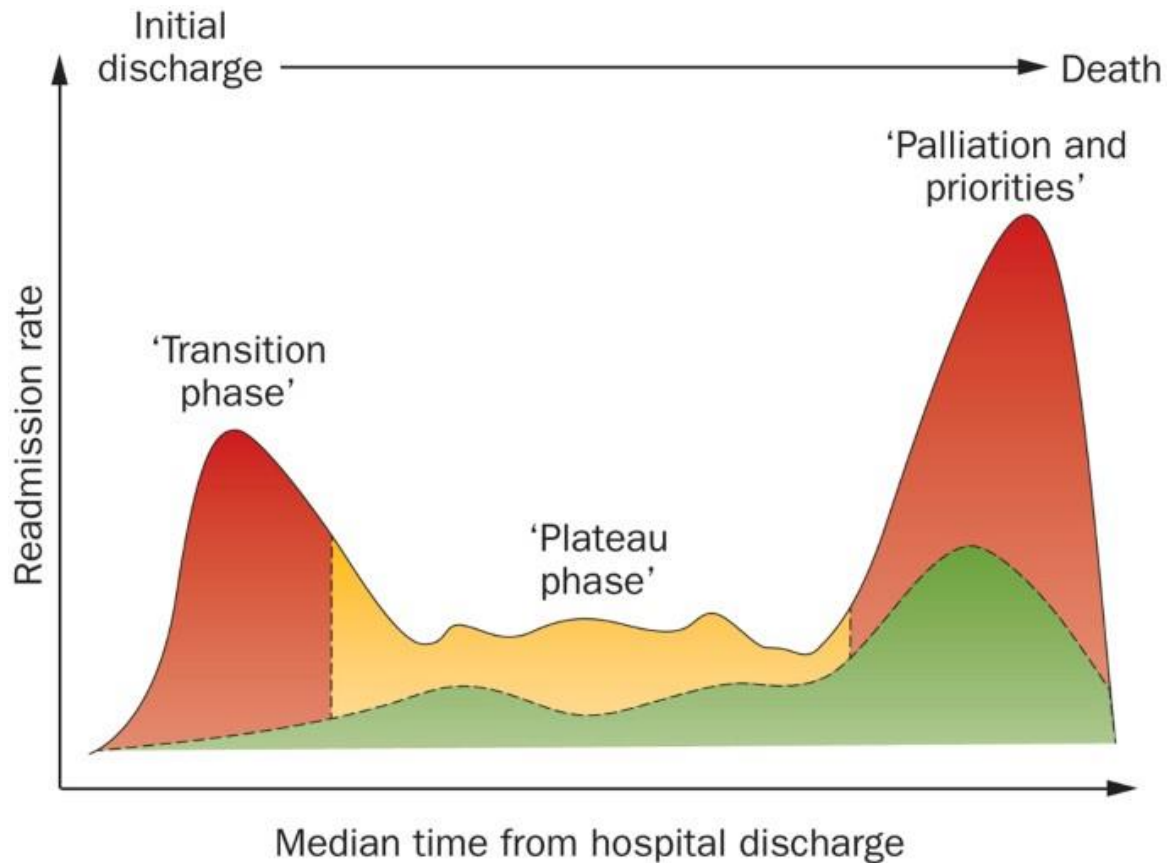
ARTICLES | VOLUME 400, ISSUE 10367, P1938-1952, DECEMBER 03, 2022

[Download Full Issue](#)

Safety, tolerability and efficacy of up-titration of guideline-directed medical therapies for acute heart failure (STRONG-HF): a multinational, open-label, randomised, trial

[Prof Alexandre Mebazaa, MD](#)   • [Beth Davison, PhD](#) • [Prof Ovidiu Chioncel, MD](#) • [Prof Alain Cohen-Solal, MD](#) •

[Rafael Diaz, MD](#) • [Prof Gerasimos Filippatos, MD](#) • et al. [Show all authors](#)



O pós internamento é um período vulnerável

As Guidelines actuais recomendam o acompanhamento precoce dos doentes após a alta

Existe um défice de orientações em relação aos timings e metas para a titulação farmacológica

Comparar estratégia de acompanhamento precoce de alta intensidade após hospitalização por insuficiência cardíaca com rápida titulação de terapêutica para doses alvo após 2-3 semanas vs estratégia de cuidados pós-alta padrão.

INCLUSION CRITERIA			EXCLUSION CRITERIA
	<ul style="list-style-type: none">- Age 18 - 85- Admitted to hospital within 72h for AHF- Hemodynamically stable- Elevated NT-proBNP > 2500 at time of screening with more than 10% decrease in concentration between screening and before randomization (but still >1500)- Had not been treated with optimal doses of oral HF therapies within 2 days of anticipated discharge	<ul style="list-style-type: none">- Clear intolerance to high doses of BB, RASi, ACE/ARBi-Significant pulmonary disease-Myocardial infarction, unstable angina or cardiac surgery in the last 3-months-History of transplant or VAD-CKD with eGFR<30-Index event triggered by a correctable etiology-Uncorrected thyroid disease, active myocarditis, amyloid or HCM	

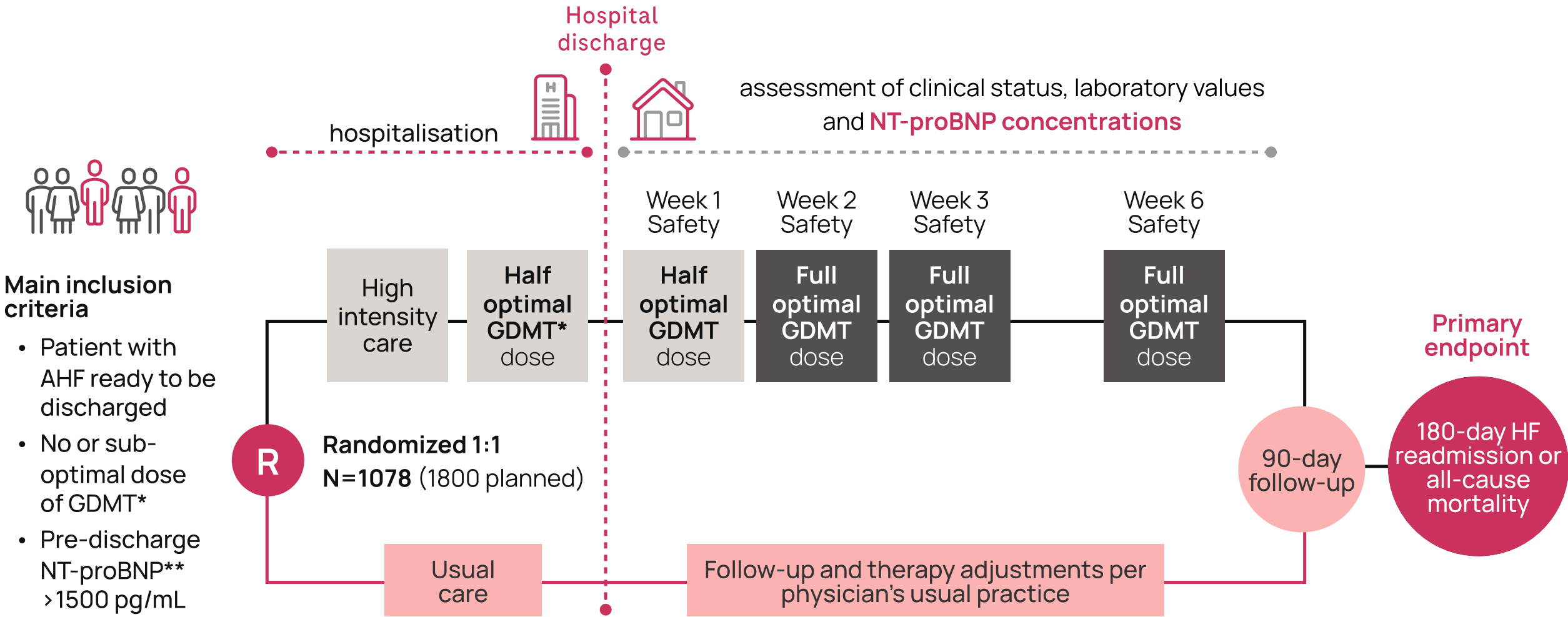





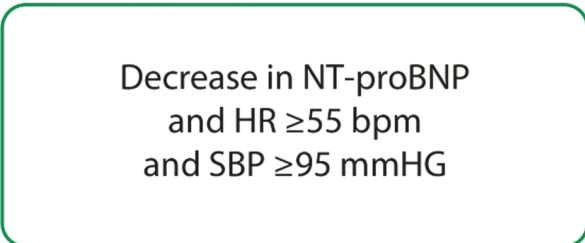
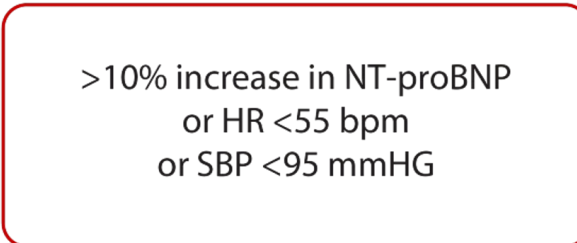

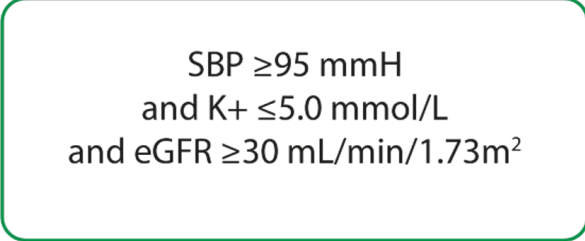
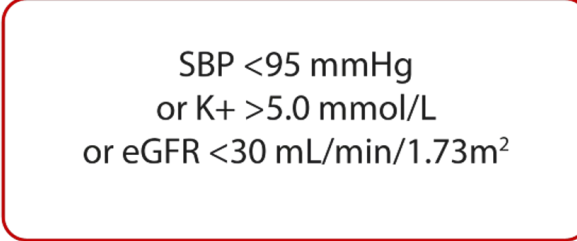

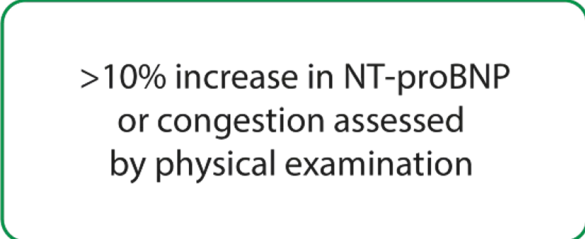
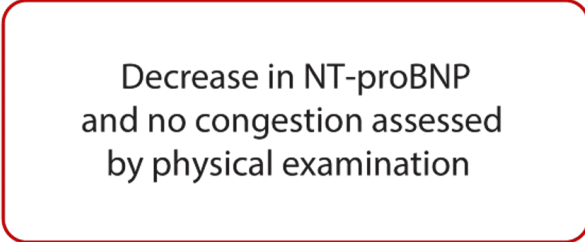
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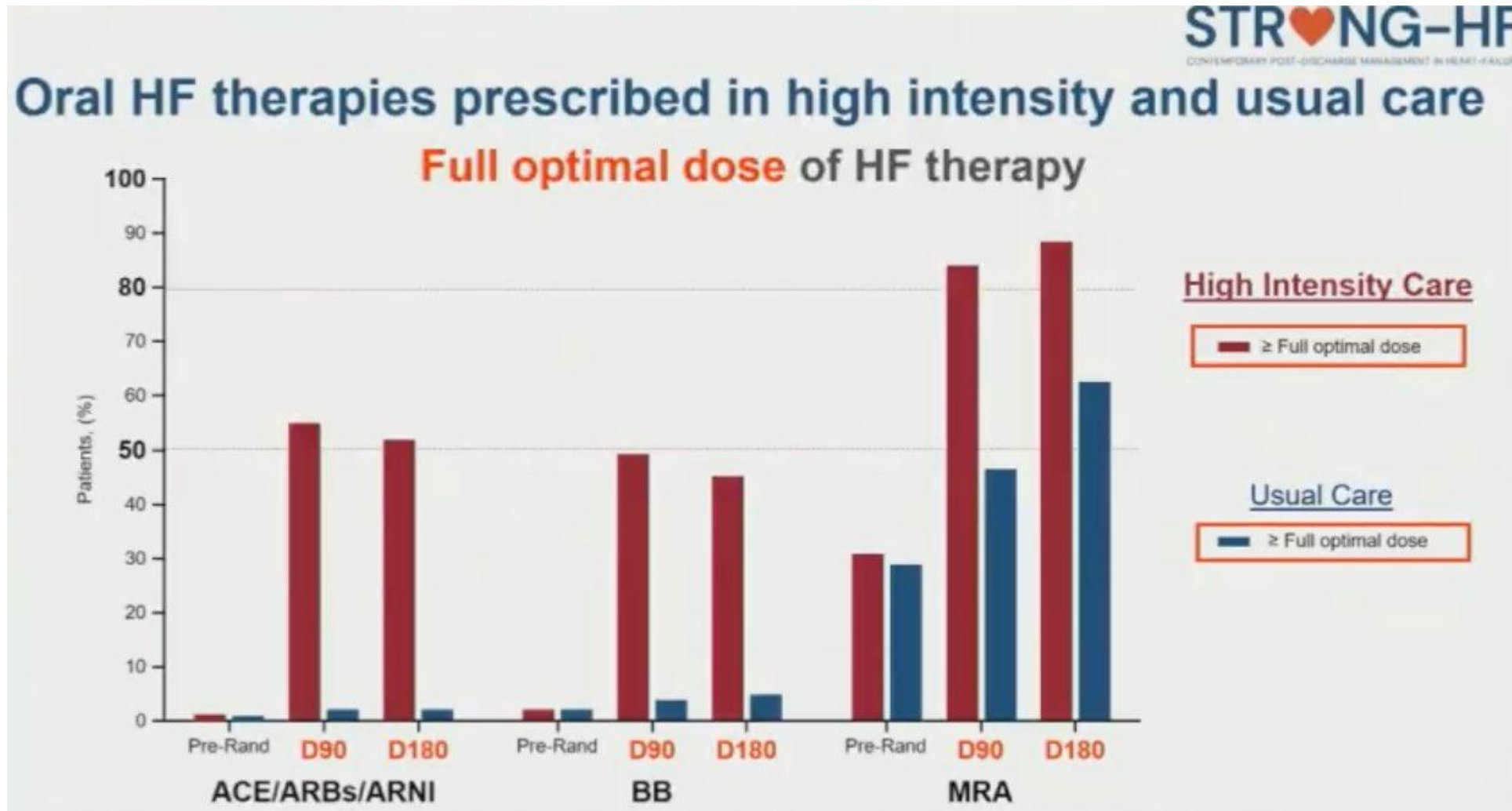
FEVE média: 36%

Cardiomiopatia isquémica: 48%

Os estudos de 2022/23 que mudam a prática na perspectiva da Cardiologia

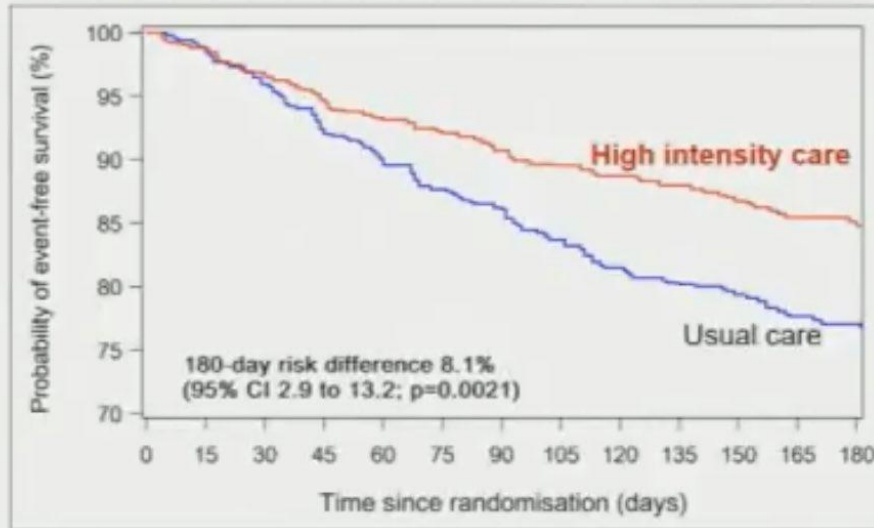


	 Up-titration	 Pause up-titration
 β blockers	 Decrease in NT-proBNP and HR ≥ 55 bpm and SBP ≥ 95 mmHG	 >10% increase in NT-proBNP or HR < 55 bpm or SBP < 95 mmHG
 ACEi/ARB/ARNi/MRA	 SBP ≥ 95 mmH and K ⁺ ≤ 5.0 mmol/L and eGFR ≥ 30 mL/min/1.73m ²	 SBP < 95 mmHg or K ⁺ > 5.0 mmol/L or eGFR < 30 mL/min/1.73m ²
 Loop diuretics	 >10% increase in NT-proBNP or congestion assessed by physical examination	 Decrease in NT-proBNP and no congestion assessed by physical examination



Hipotensão: 5% vs <1%, Hipercalemia: 3% vs 0% e Insuficiência renal: 3% vs <1% no grupo intensivo
 Segurança – Efeitos adversos graves (IC, morte súbita, pneumonia) 16% vs 17% NS

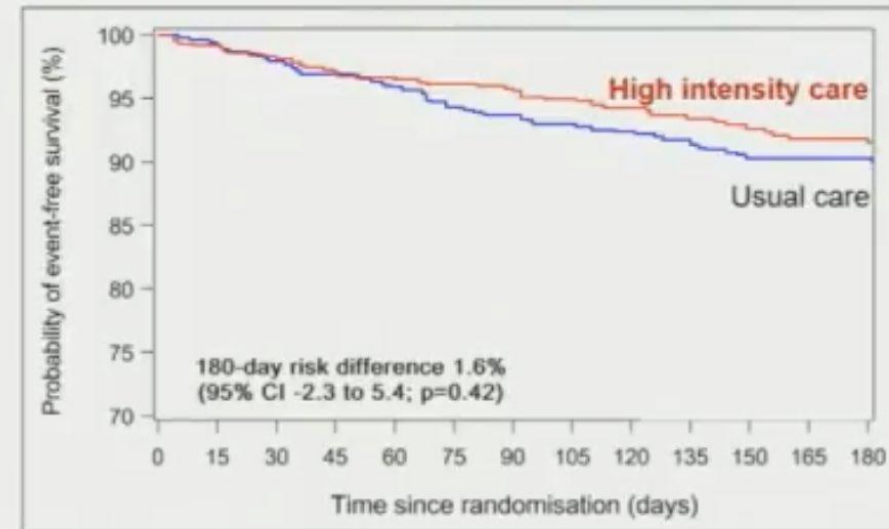
**Primary endpoint:
 180-Day Readmission for HF or All-Cause Death**



**Secondary endpoints:
 Change from Baseline to Day 90 in EQ-5D VAS**

High Intensity	Usual Care	Treatment effect	P value
10.7 (0.9)	7.2 (0.9)	3.5 (1.7 to 5.2)	< 0.0001

180-Day All-Cause Death



Recommendation Table 3 — Recommendation for pre-discharge and early post-discharge follow-up of patients hospitalized for acute heart failure

Recommendation	Class^a	Level^b
An intensive strategy of initiation and rapid up-titration of evidence-based treatment before discharge and during frequent and careful follow-up visits in the first 6 weeks following a HF hospitalization is recommended to reduce the risk of HF rehospitalization or death. ^{c,d,e 16}	I	B

Falar na criação. do Hospital de dia de Viseu e como iremos iniciar com este protocolo

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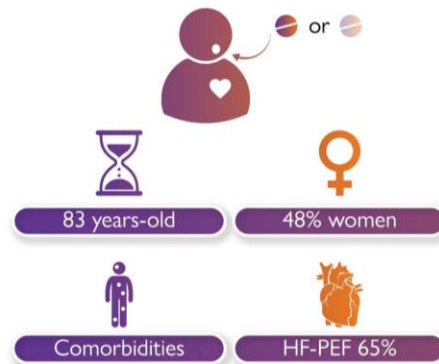
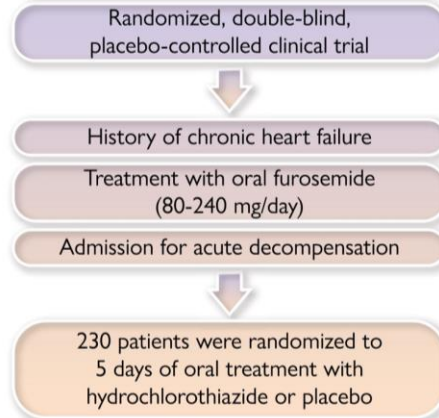
Os estudos de 2022/23 que mudam a prática na perspectiva da Cardiologia

CLOTOTIC TRIAL

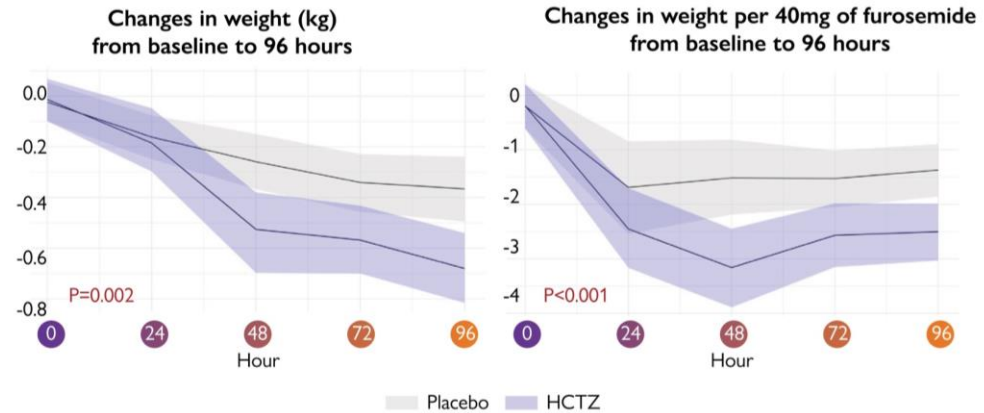
Take Home Message

The addition of hydrochlorothiazide to intravenous loop diuretics improves the diuretic response in patients with decompensated heart failure at the cost of worsening renal function.

Study population



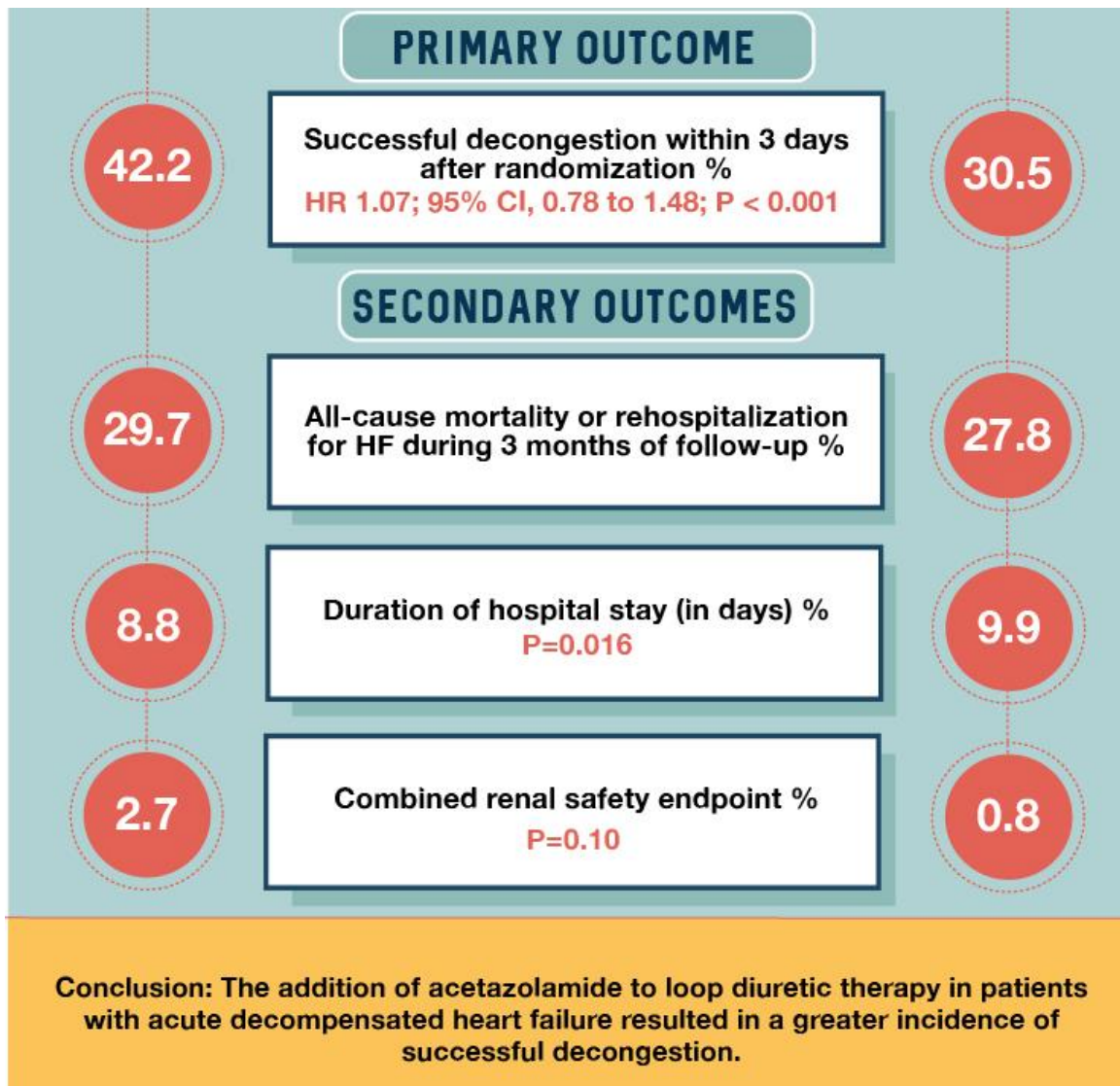
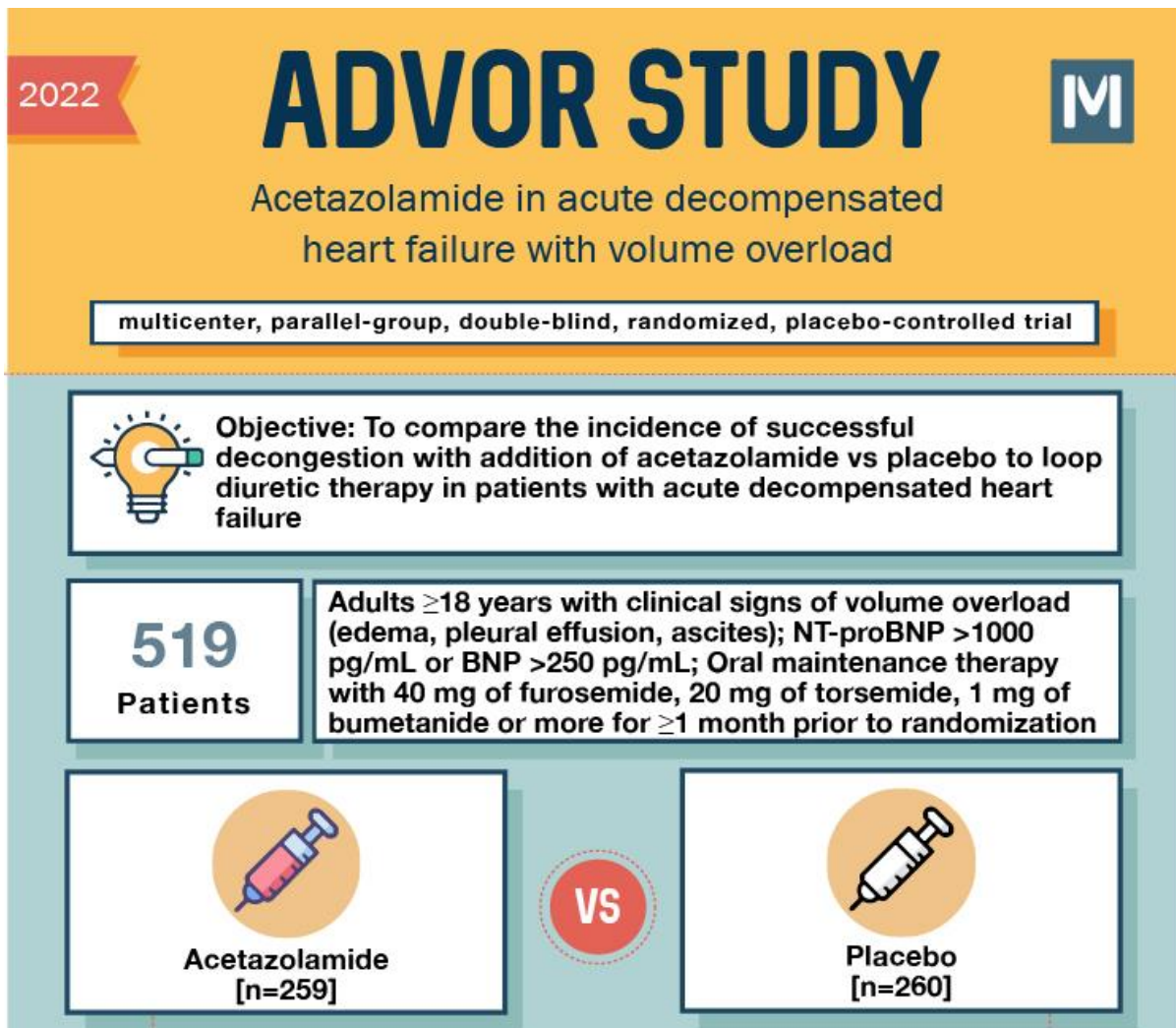
Efficacy



Safety

	Placebo	HCTZ	p-value
All-cause mortality at 90 days	19 (16.4%)	23 (20.2%)	0.566
All-cause rehospitalizations at 90 days	40 (34.5%)	43 (37.7%)	0.709
Impaired renal function (serum creatinine and eGFR)	20 (17.2%)	53 (46.5%)	<0.001
Hyponatraemia (Na ⁺ ≤ 130 mmol/L) - (Na ⁺ ≤ 125 mmol/L)	6 (5.2%) - 2 (1.7%)	10 (8.8%) - 3 (2.6%)	0.416 - 0.682
Hypokalaemia (K ⁺ ≤ 3.0 mmol/L) - (K ⁺ ≤ 2.5 mmol/L)	18 (16.1%) - 0 (0.0%)	43 (40.6%) - 2 (1.8%)	<0.001 - 0.245
Serious adverse events	27 (23.3%)	26 (22.8%)	0.93

Os estudos de 2022/23 que mudam a prática na perspectiva da Cardiologia



Os estudos de 2022/23 que mudam a prática na perspectiva da **Cardiologia**

INTERVENTION

HOST-EXAM >

Harmonizing Optimal Strategy for Treatment of Coronary Artery Stenosis-Extended Antiplatelet Monotherapy

Clopidogrel or aspirin monotherapy after 6 to 18 months of dual antiplatelet therapy following PCI.

Cardiologytoday

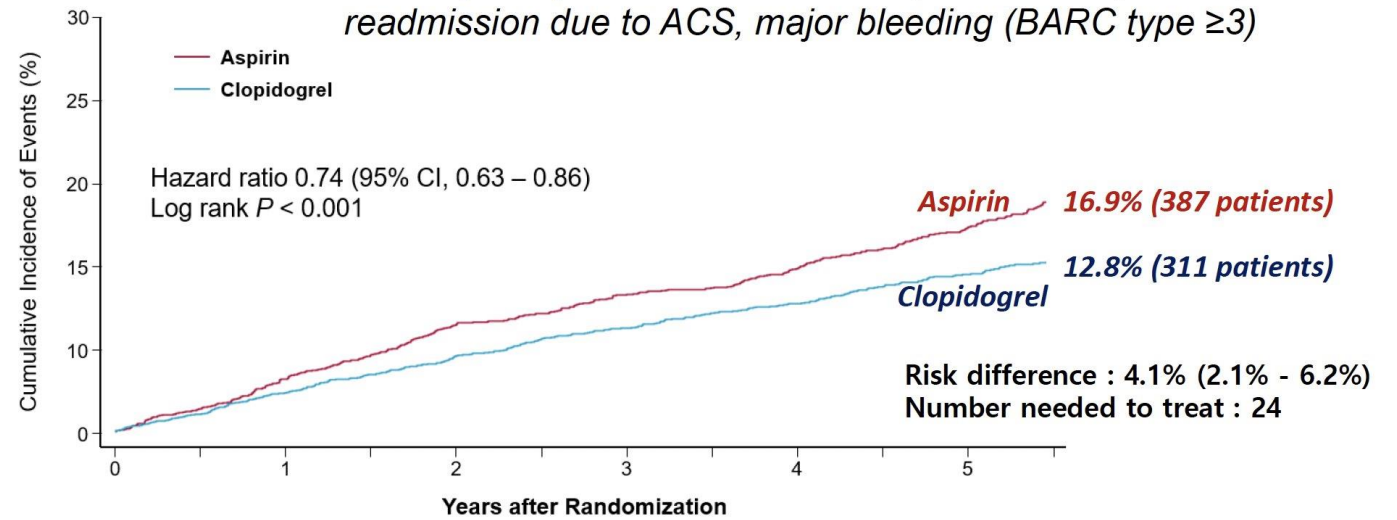
DESIGN: randomized, open label, parallel

PATIENTS: 5,438

Clinical Outcomes ■ *Primary Endpoint*



Primary endpoint: All-cause death, nonfatal MI, stroke, readmission due to ACS, major bleeding (BARC type ≥ 3)



Number at Risk

		0	1	2	3	4	5	6
Aspirin	2286	2189	2086	2014	1777	1287	1007	
Clopidogrel	2431	2355	2280	2214	1964	1462	1181	