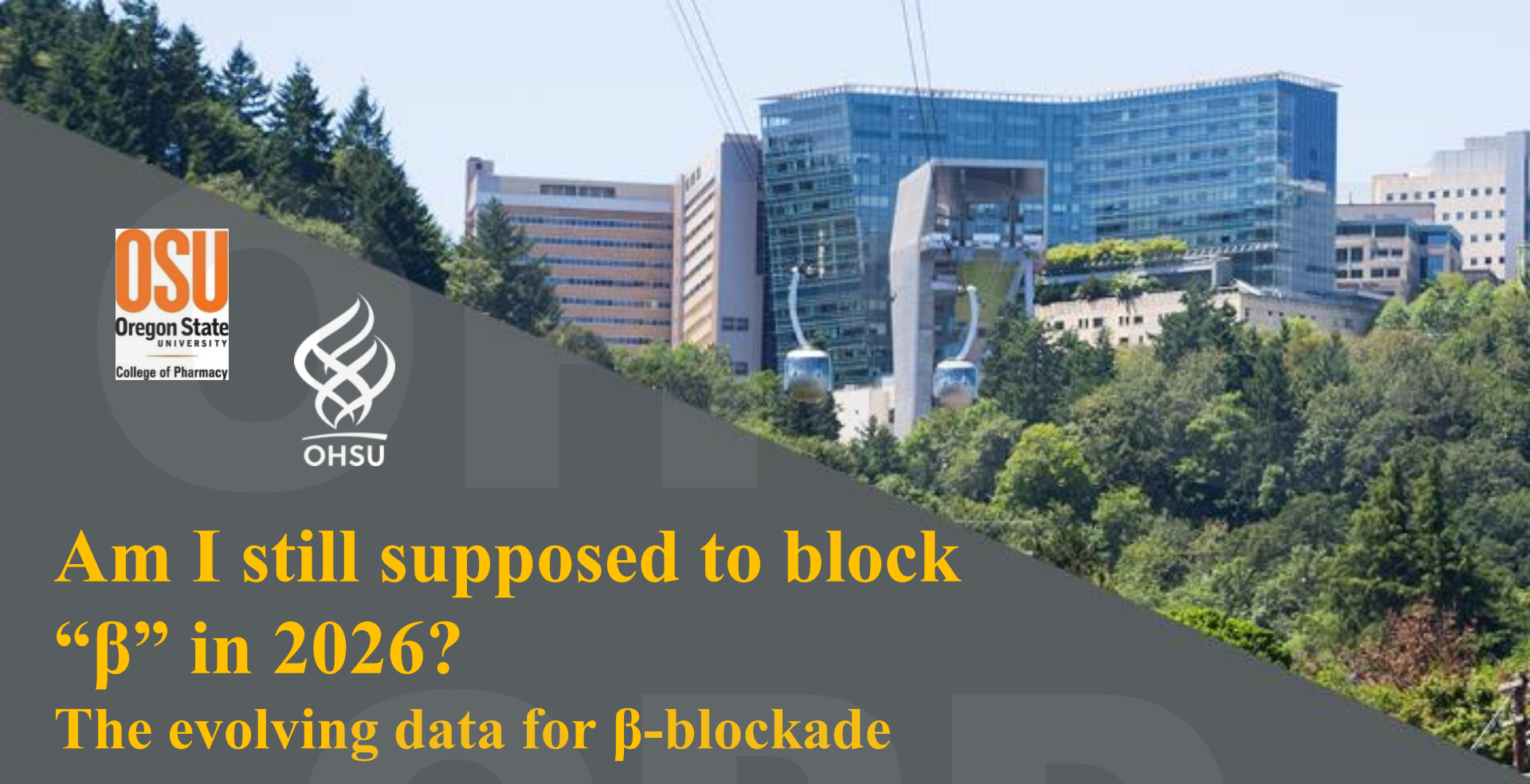

Am I still supposed to block "β" in 2026?

The evolving data for β-blockade

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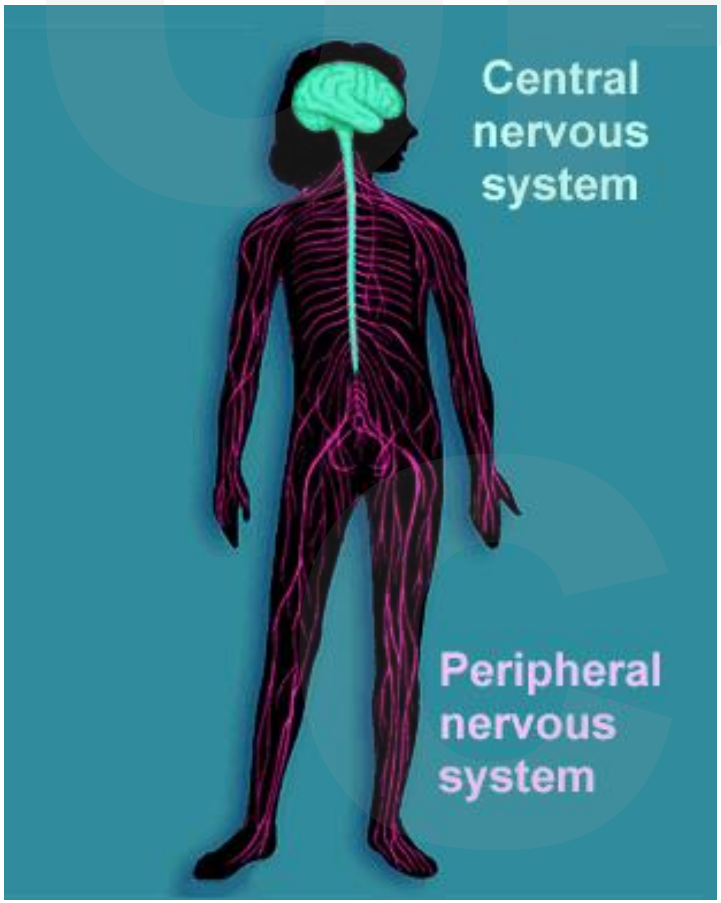
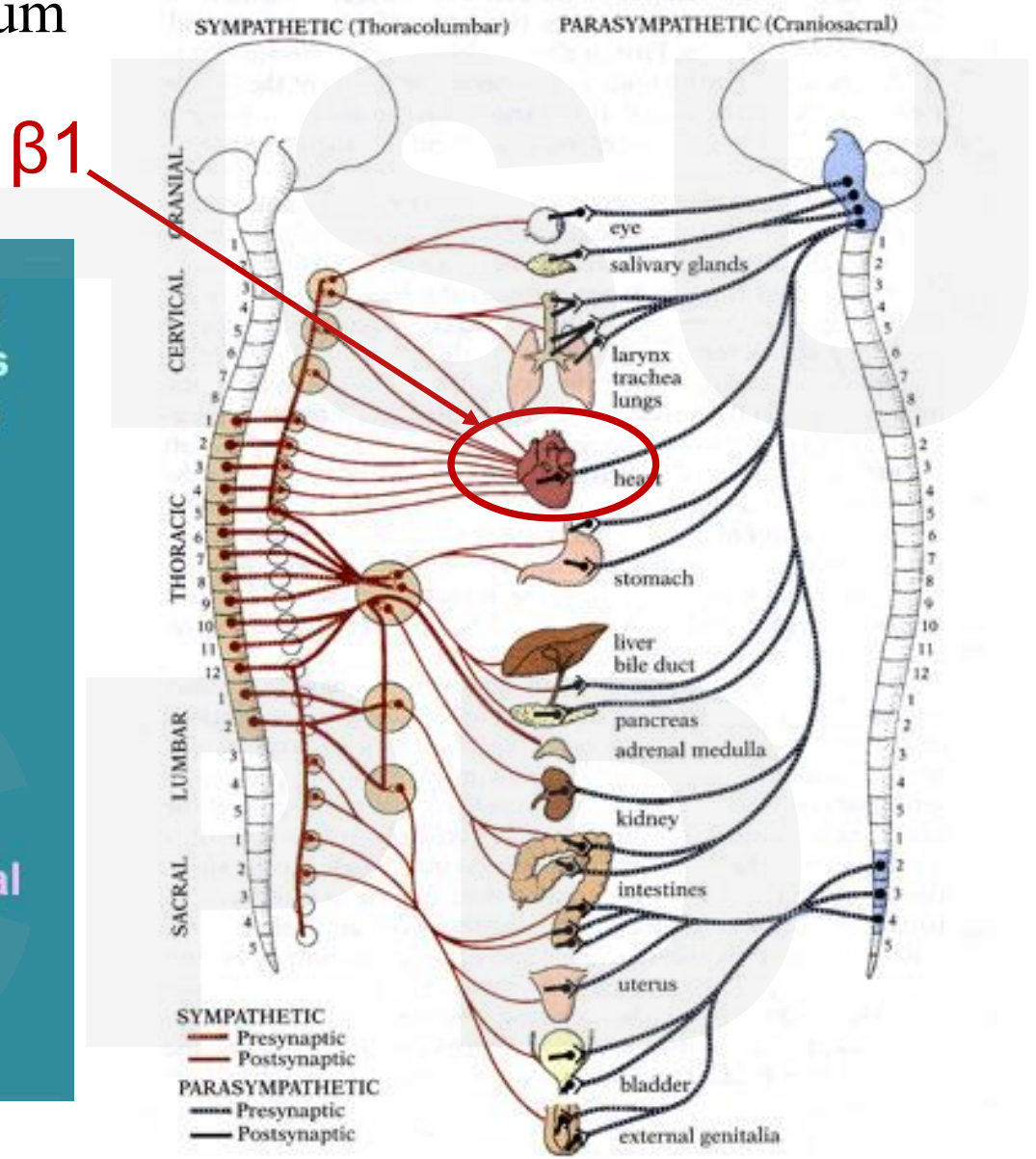
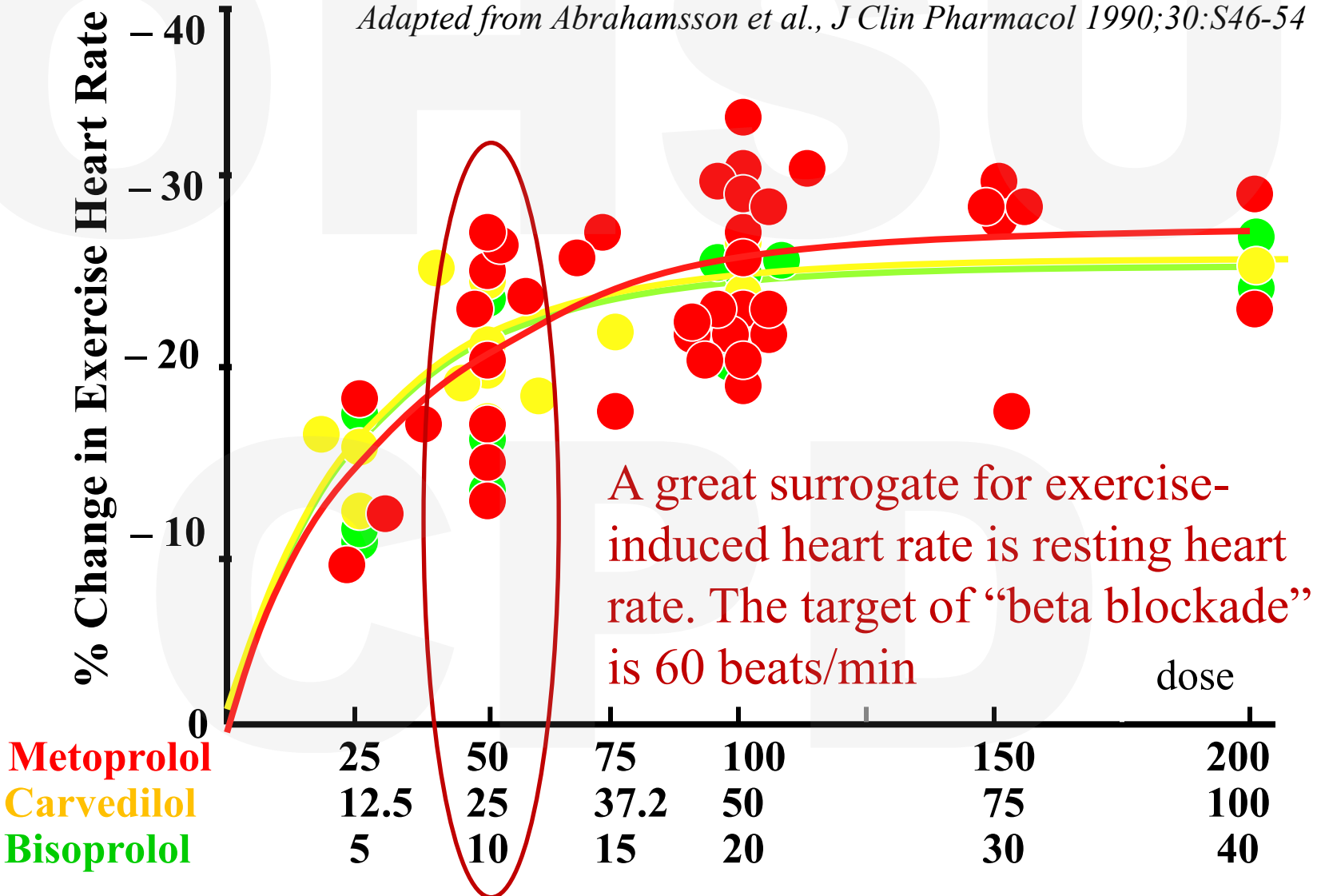
Declarations: No conflicts of interest with any content

"Blocking Beta" in the cardiac world refers to the β1 receptor found in the myocardium and SA and AV nodes.





Blocking β1 in the heart reduces both contractility and heart rate. Both responses are variable and dependent on both PK and PD



So, beta-blockers (cardioselective and non-selective) reduce heart rate and contractility in a dose-dependent manner that is highly variable across patients

and

There is a difference between being on a beta-blocker and being medically beta-blocked (generally defined as a resting heart rate ~ 60)

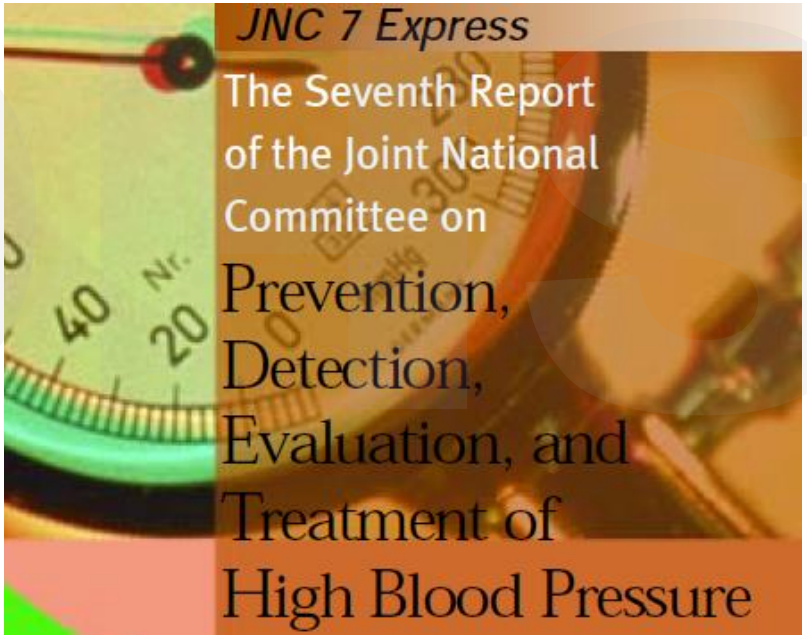
So, with that autonomic primer…..

"Am I still supposed to block beta in 2026?"

Still wonderful agents for symptomatic angina and absolutely essential for HFrEF

But, β-blockers have been falling out of favor in a couple other areas and that data continues to evolve

Falling out of favor started with Hypertension…



NIH hypertension guideline:

JNC 7, 2003

Pharmacologic Treatment

There are excellent clinical outcome trial data proving that lowering BP with several classes of drugs, including angiotensin converting enzyme inhibitors (ACEIs), angiotensin receptor blockers (ARBs), beta-blockers (BBs), calcium channel blockers (CCBs), and thiazide-type diuretics, will all reduce the complications of hypertension.[10,31–37] Tables 6 and 7 provide a list of commonly

2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults

Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8)

No β-blockers!!

Recommendation 6

In the general nonblack population, including those with diabetes, initial antihypertensive treatment should include a thiazide-type diuretic, calcium channel blocker (CCB), angiotensin-converting enzyme inhibitor (ACEI), or angiotensin receptor blocker (ARB). (Moderate Recommendation – Grade B)

Recommendation 7

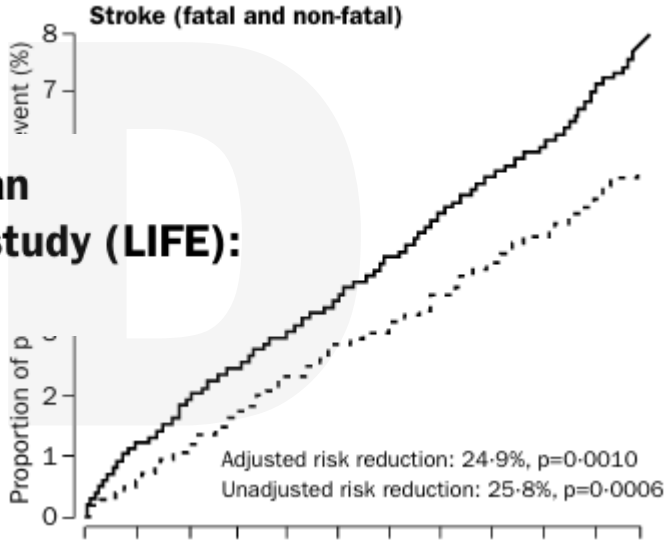
In the general black population, including those with diabetes, initial antihypertensive treatment should include a thiazide-type diuretic or CCB. (For general black population: Moderate Recommendation – Grade B; for black patients with diabetes: Weak Recommendation – Grade C)

Why did JNC-8 kill off β-blockers for HTN?

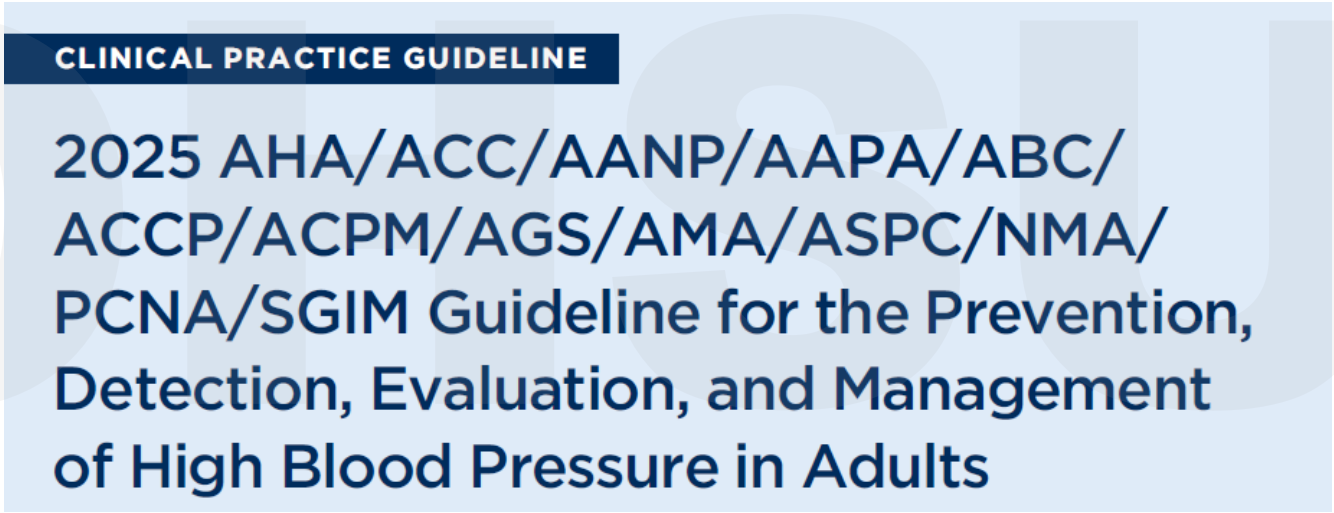
The panel did not recommend β-blockers for the initial treatment of hypertension because in one study use of β-blockers resulted in a higher rate of the primary composite outcome of cardiovascular death, myocardial infarction, or stroke compared to use of an ARB, a finding that was driven largely by an increase in stroke (question 3, evidence statement 22).[28] In the other studies that com-

Cardiovascular morbidity and mortality in the Losartan Intervention For Endpoint reduction in hypertension study (LIFE): a randomised trial against atenolol

2002



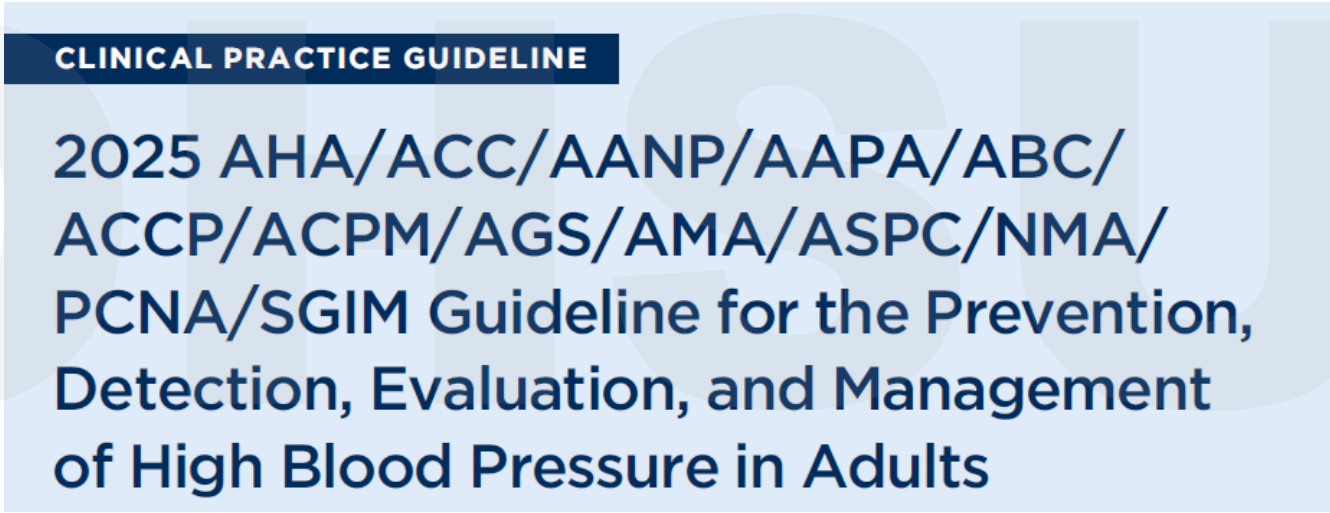
Not just one trial that resulted in demotion of β-blockers…



5.2.3. Initial Medication Selection for Treatment of Primary Hypertension

"β-blockers were less effective than first line antihypertensive classes in preventing strokes and had a less favorable side effect profile; therefore, they should be reserved for adults with compelling indications.[7,8]"

Not just one trial that resulted in demotion of β-blockers



5.2.3. Initial Medication Selection for Treatment of Primary Hypertension

"β-blockers were less effective than first line antihypertensive classes in preventing strokes and had a less favorable side effect profile; therefore, they should be reserved for adults with compelling indications.[7,8]"

In the real world it was not just the trial data….we kind of all killed β-blockers as 1st line for HTN……

β-Blocker use following myocardial infarction: Low prevalence of evidence-based dosing

Jeffrey J. Goldberger, MD,[a] Robert O. Bonow, MD,[a] Michael Cuffe, MD,[b] Alan Dyer, PhD,[a] Yves Rosenberg, MD,[c] Robert O'Rourke, MD,[d] Prediman K. Shah, MD,[e] and Sidney C. Smith, Jr, MD[f] for the PACE-MI Investigators
Chicago, IL; Durham and Chapel Hill, NC; Bethesda, MD; San Antonio, TX; and Los Angeles, CA

Patient Compliance with Beta-blocker Medication in General Practice

H. PETRI AND J. URQUHART
Department of Epidemiology, Rijksuniversiteit Limburg

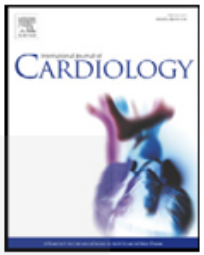
Adverse Outcomes of Underuse of β-Blockers in Elderly Survivors of Acute Myocardial Infarction

Stephen B. Soumerai, ScD; Thomas J. McLaughlin, ScD; Donna Spiegelman, ScD; Ellen Hertzmark, MA; George Thibault, MD; Lee Goldman, MD

Contents lists available at ScienceDirect

International Journal of Cardiology 2012

journal homepage: www.elsevier.com/locate/ijcard



Discontinuation of beta-blockers in cardiovascular disease: UK primary care cohort study☆

Conclusion: A quarter of patients with cardiovascular disease who are commenced on a beta-blocker are no longer taking the drug by one year. This rises to 50% by three years, a finding that is consistent irrespective of whether the prescription is for prognostic (CHF or post MI) or symptomatic (angina) benefit. There is an urgent need to understand and address the prescribing difficulties of beta-blockers in these at-risk patients.

"There is an urgent need to understand and address the prescribing difficulties of beta-blockers in these at-risk patients."

2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults

Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8)

Forget it, you've all had 6 decades to figure out β blocker dosing and we're still not doing it right….so, combined with the underperforming clinical trial data…

β-blockers are now second line (behind 3 first line agents) for HTN

Whatever β blocker camp you were in (pro or con), the HTN data revealed an interesting fact…..
There clearly was no extra benefit in these large trials from β blockade compared to using ARBs, thiazides or CCBs despite many HTN trials including post-MI and CAD patients

A skeptical new eye was turned towards the purported ischemic benefits of β-blockade

A lot of trials designed and launched in late 2010's.....

Acronym†	ClinicalTrials.gov No.	No. of Patients	Trial Location	Patients' Condition	Question	Primary End Point	Expected Completion
REDUCE-AMI[§]	NCT03278509	5000	Sweden, Estonia, and New Zealand	Acute MI with LVEF >50% and receipt of angiography	Beta-blocker vs. no beta-blocker	Death from any cause or new MI	Completed
DANBLOCK	NCT03778554	2760	Denmark	≤2 wk after MI and LVEF >40%	Beta-blocker vs. no beta-blocker	Death from any cause, recurrent MI, revascularization with PCI or CABG, ischemic stroke, incident heart failure, malignant ventricular arrhythmia, or resuscitated cardiac arrest	2024
BETAMI	NCT03646357	2900	Norway	Type 1 MI treated with PCI or lysis	Beta-blocker vs. no beta-blocker	Death from any cause, recurrent MI, heart failure, coronary revascularization, ischemic stroke, malignant ventricular arrhythmia, or resuscitated cardiac arrest	2024
REBOOT	NCT03596385	8468	Spain and Italy	MI without heart failure and with LVEF >40%	Beta-blocker vs. no beta-blocker	MACE‡	2024
SMART DECISION	NCT04769362	2540	South Korea	Receiving beta-blockers for ≥1 yr after MI	Continuation of beta-blocker vs. discontinuation	MACE‡	2025
AβYSS	NCT03498066	3700	France	STEMI or NSTEMI treated with beta-blocker, without heart failure or LVEF <40%	Continuation of beta-blocker vs. discontinuation at >6 mo after MI	Death from any cause, MI, stroke, or hospitalization for cardiovascular causes	2024
ABBREVIATE	NCT05081999	8500	Canada	Stable ischemic heart disease, without left ventricular dysfunction or heart failure	Continuation of beta-blocker vs. discontinuation	Death from any cause, nonfatal MI, hospitalization for resuscitated cardiac arrest, unstable angina leading to urgent revascularization, or heart failure	2026

A lot of new trial data in 2024-2026

The newer trials are generally not working out well for β-blockers in ischemic heart disease

2024, REDUCE-AMI trial

2024, ABYSS trial

Aside from the HTN data, how did we get here?

Back to the future…..two ACC/AHA guidelines for acute MI in the 1990's….

ACC/AHA Guidelines for the Management of Patients With Acute Myocardial Infarction

A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Management of Acute Myocardial Infarction)

1999 Update: ACC/AHA Guidelines for the Management of Patients With Acute Myocardial Infarction: Executive Summary and Recommendations

β-Adrenoceptor Blocking Agents

Early Therapy

JACC page no.	CIRC page no.	Original Recommendation (1996)	Revised Recommendation (1999)
1381–82	2348	**β-Adrenoceptor Blocking Agents** **Early Therapy (see also "Predischarge Preparation")** *Class I* 1. Patients without a contraindication to β-adrenoceptor blocker therapy who can be treated within 12 hours of onset of infarction, irrespective of administration of concomitant thrombolytic therapy.	**β-Adrenoceptor Blocking Agents** **Early Therapy** *Class I* 1. Patients without a contraindication to β-adrenoceptor blocker therapy who can be treated within 12 hours of onset of infarction, irrespective of administration of concomitant thrombolytic therapy or performance of primary angioplasty.

During the first few hours of infarction, β-adrenoceptor blocking agents may diminish myocardial oxygen demand by reducing heart rate, systemic arterial pressure, and myocardial contractility. In addition, prolongation of diastole caused by a reduction in heart rate may augment perfusion to injured myocardium, particularly the subendocardium. As a result, immediate β-adrenoceptor blocker therapy appears to reduce (1) the magnitude of infarction and incidence of associated complications in subjects not receiving concomitant thrombolytic therapy and (2) the rate of reinfarction in patients receiving thrombolytic therapy.

β-Adrenoceptor Blocking Agents
Early Therapy

JACC page no.	CIRC page no.	Original Recommendation (1996)	Revised Recommendation (1999)
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β-Adrenoceptor Blockers

β-Adrenoceptor blockers such as propranolol, metoprolol, and atenolol have been shown to reduce incidence of VF in patients with acute MI in studies preceding the reperfusion era.[521] β-Adrenoceptor blockers also may be of particular

So, already by the late '90s, there was recognition that benefits of beta-blockade could be impacted by reperfusion (or lack thereof)

Way back to the future: even before reperfusion, the duration of benefit of β-blockers was questioned….

A Randomized Trial of Propranolol in Patients With Acute Myocardial Infarction

II. Morbidity Results

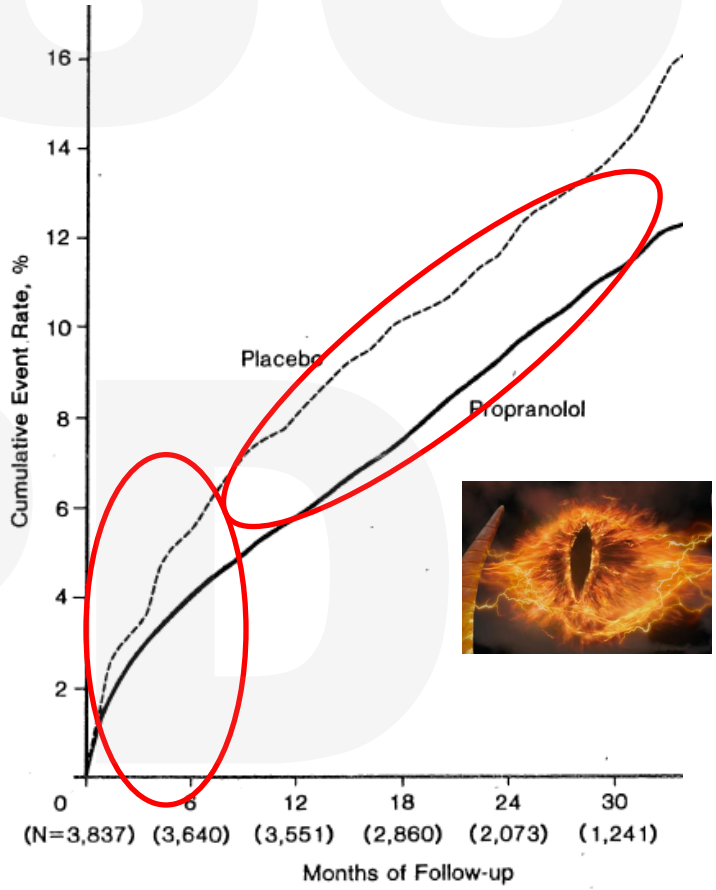
β-Blocker Heart Attack Trial Research Group

- The β-Blocker Heart Attack Trial (BHAT) was a placebo-controlled, ings on other m

The β-Blocker Heart Attack Trial (BHAT)

JAMA, Nov 25th, 1983

Recurrent Fatal and non-fatal Coronary Event rate after MI



This time limited benefit of β-blockers, even before the reperfusion era made sense. VF and SCD don't persist……

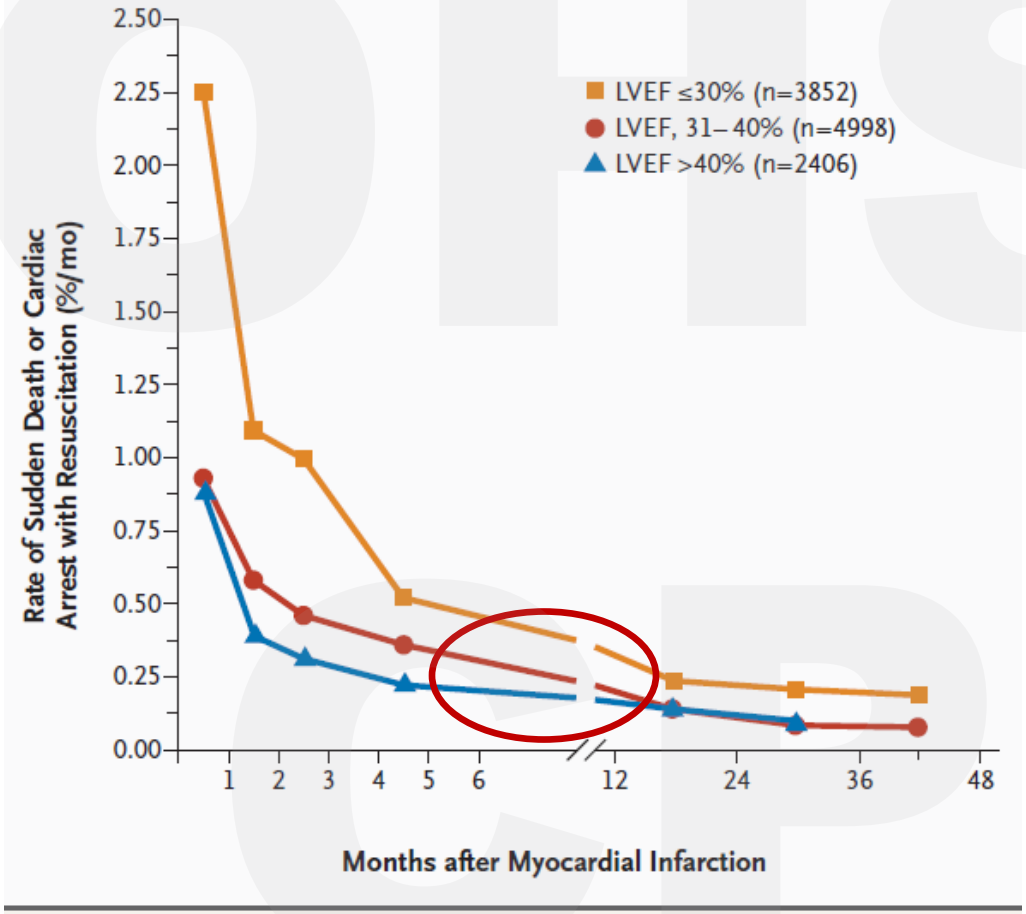


Figure 2. Rate of Sudden Death or Cardiac Arrest with Resuscitation over the Course of the Trial in the Three Categories of Left Ventricular Ejection Fraction (LVEF).

The lack of longer-term (> 6-12 mo.) benefit fits the risk of VF/SCD post-MI which drops quickly

Within 6-12 months, you're a stable CAD patient, not a post-MI patient

NEJM 2005;352:2581-8

This time limited benefit of β-blockers, even before the reperfusion era made sense. VF and SCD don't persist……

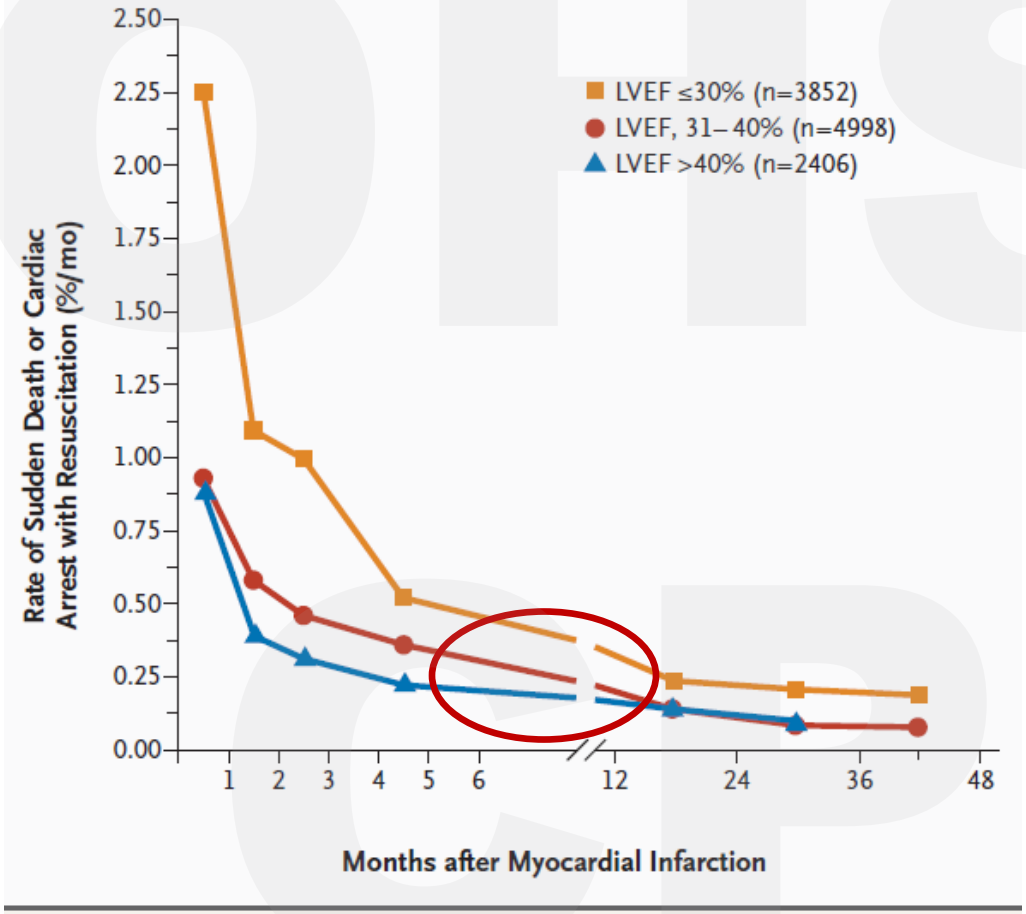


Figure 2. Rate of Sudden Death or Cardiac Arrest with Resuscitation over the Course of the Trial in the Three Categories of Left Ventricular Ejection Fraction (LVEF).

So, it makes sense that the subacute benefit, which comes from reducing VF/SCD dissipates somewhere < 1 year because the risk of VF/SCD dissipates in that time

NEJM 2005;352:2581-8

But we could ask, “so what?” While SCD/VF data is interesting, does it really matter how long this higher risk, “peri-infarct” period lasts?

Because don’t my patients with stable CAD need to be β-blocked?

No!

We've actually never had positive data for β-blockers in stable CAD

2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease

"…no large trials have assessed the effects of beta blockers on survival or coronary event rates in patients with stable ischemic cardiac disease."

LEVEL C

Very limited populations evaluated*

Only consensus opinion of experts, case studies, or standard of care

Class IIb

1. **Beta blockers may be considered as chronic therapy for all other patients with coronary or other vascular disease. (*Level of Evidence: C*)**

Data accumulated through 2010's for lack of benefit of β-blockers stable CCD leading to changes in 2023 guideline

CLINICAL PRACTICE GUIDELINE

2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease

4. Protective clinical benefits of beta-blocker therapy in reducing cardiovascular death have not been shown among CCD patients without previous MI or LV systolic dysfunction. The REACH (Reduction of Athero-

3: No Benefit | B-NR

4. In patients with CCD without previous MI or LVEF ≤50%, the use of beta-blocker therapy is not beneficial in reducing MACE, in the absence of another primary indication for beta-blocker therapy.† [16-19]

This lack of benefit in CCD is why the 2023 guideline no longer preferentially recommends β-blockers first line for angina….

2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease

4.4.3.1. USE OF ANTI-ISCHEMIC MEDICATIONS: RECOMMENDATIONS

CLASS I

1. Beta blockers should be prescribed as initial therapy for relief of symptoms in patients with SIHD (757,765,766). *(Level of Evidence: B)*

CLINICAL PRACTICE GUIDELINE

2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease

"In patients with CCD and angina, antianginal therapy with either a beta blocker, CCB, or long-acting nitrate is recommended for relief of angina…."

So, there is no longer a preference for β-blockers as first line therapy for angina.

And, as we worked through the older generation of β-blocker clinical trials it was clear that:

1. Beta-blockers don't reduce new or recurrent ischemic events in patients with stable CAD and…

2. Risk of VF/SCD drops off quickly after an MI/ACS

That begged a question…….

How long do I need β-blockers after an MI (when is my patient stable CCD)?

2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease

4.4.2.2. Beta-Blocker Therapy

Class I

1. **Beta-blocker therapy should be started and continued for 3 years in all patients with normal LV function after MI or ACS.[757–759] (*Level of Evidence: B*)**
2. **Beta-blocker therapy should be used in all patients with LV systolic dysfunction (EF ≤40%) with heart failure or prior MI, unless contraindicated. (Use should be limited to carvedilol, metoprolol succinate, or bisoprolol, which have been shown to reduce risk of death.)[571,760–763] (*Level of Evidence: A*)**

In 2023, the post-MI recommended duration was shortened to 1 yr

Recommendations for Beta Blockers
Referenced studies that support the recommendations are summarized in the Online Data Supplement.

COR	LOE	RECOMMENDATIONS
1	A	1. In patients with CCD and LVEF ≤40% with or without previous MI, the use of beta-blocker therapy is recommended to reduce the risk of future MACE, including cardiovascular death.[1-3]
1	A	2. In patients with CCD and LVEF <50%, the use of sustained release metoprolol succinate, carvedilol, or bisoprolol with titration to target doses is recommended in preference to other beta blockers.*[1,3-8]
2b	B-NR	3. In patients with CCD who were initiated on beta-blocker therapy for previous MI without a history of or current LVEF ≤50%, angina, arrhythmias, or uncontrolled hypertension, it may be reasonable to reassess the indication for long-term (>1 year) use of beta-blocker therapy for reducing MACE.[9-15]
3: No Benefit	B-NR	4. In patients with CCD without previous MI or LVEF ≤50%, the use of beta-blocker therapy is not beneficial in reducing MACE, in the absence of another primary indication for beta-blocker therapy.†[16-19]

In 2023, the guideline that preceded the current generation of β-blocker trials already said **"no benefit" in stable CAD** and likely no benefit beyond 1 year after MI if no CHF

CLINICAL PRACTICE GUIDELINE

2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease

So, what questions were the new trials (conceived and initiated well before 2023 guidelines) designed to answer?

Acronym†	ClinicalTrials.gov No.	No. of Patients	Trial Location	Patients' Condition	Question	Primary End Point	Expected Completion
REDUCE-AMI[8]	NCT03278509	5000	Sweden, Estonia, and New Zealand	Acute MI with LVEF >50% and receipt of angiography	Beta-blocker vs. no beta-blocker	Death from any cause or new MI	Completed
DANBLOCK	NCT03778554	2760	Denmark	≤2 wk after MI and LVEF >40%	Beta-blocker vs. no beta-blocker	Death from any cause, recurrent MI, revascularization with PCI or CABG, ischemic stroke, incident heart failure, malignant ventricular arrhythmia, or resuscitated cardiac arrest	2024
BETAMI	NCT03646357	2900	Norway	Type 1 MI treated with PCI or lysis	Beta-blocker vs. no beta-blocker	Death from any cause, recurrent MI, heart failure, coronary revascularization, ischemic stroke, malignant ventricular arrhythmia, or resuscitated cardiac arrest	2024
REBOOT	NCT03596385	8468	Spain and Italy	MI without heart failure and with LVEF >40%	Beta-blocker vs. no beta-blocker	MACE‡	2024
SMART DECISION	NCT04769362	2540	South Korea	Receiving beta-blockers for ≥1 yr after MI	Continuation of beta-blocker vs. discontinuation	MACE‡	2025
AβYSS	NCT03498066	3700	France	STEMI or NSTEMI treated with beta-blocker, without heart failure or LVEF <40%	Continuation of beta-blocker vs. discontinuation at >6 mo after MI	Death from any cause, MI, stroke, or hospitalization for cardiovascular causes	2024
ABBREVIATE	NCT05081999	8500	Canada	Stable ischemic heart disease, without left ventricular dysfunction or heart failure	Continuation of beta-blocker vs. discontinuation	Death from any cause, nonfatal MI, hospitalization for resuscitated cardiac arrest, unstable angina leading to urgent revascularization, or heart failure	2026

We can broadly put this new generation of trials into two camps:

1. Do I need to start a better blocker at the time of an AMI?
2. Can I stop a beta-blocker > 1 year after an MI (regardless of how it was acutely managed) as long as no HFrEF?

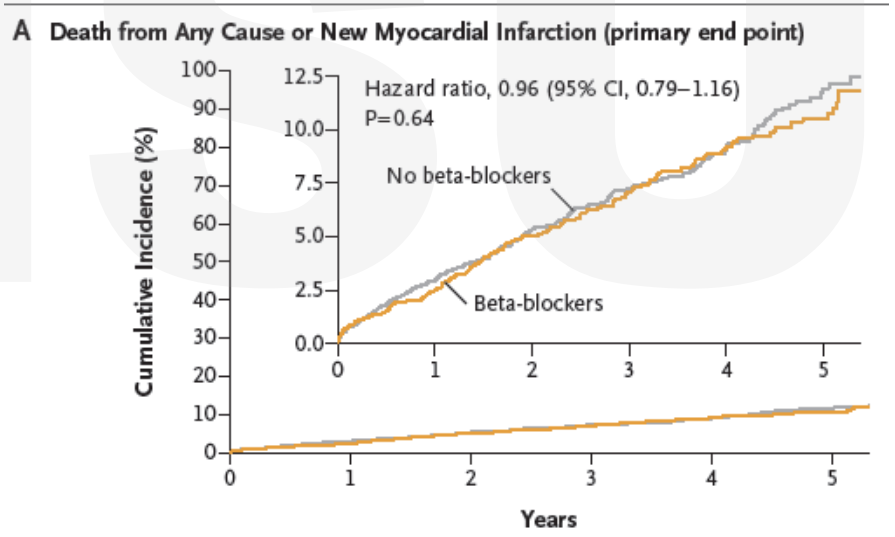
We can broadly put this new generation of trials into two camps:

1. Do I need to start a better blocker at the time of an AMI?

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction and Preserved Ejection Fraction

REDUCE-AMI trial, 2024

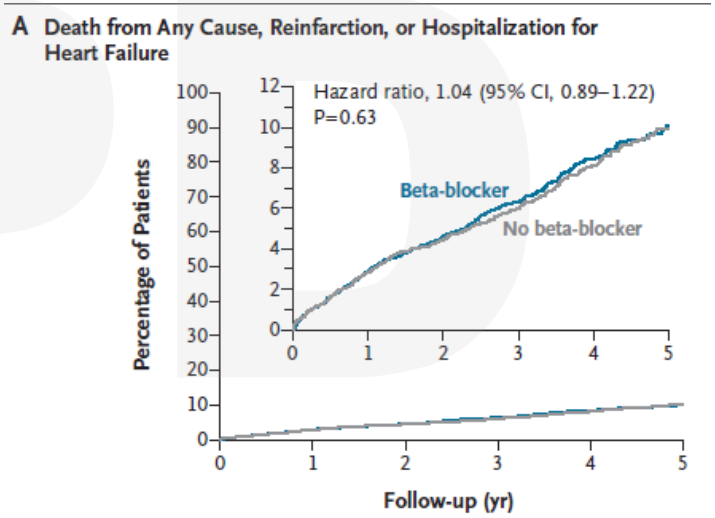


So, it looks like NO need at all for a β-blocker at time of MI

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction without Reduced Ejection Fraction

REBOOT trial, 2025

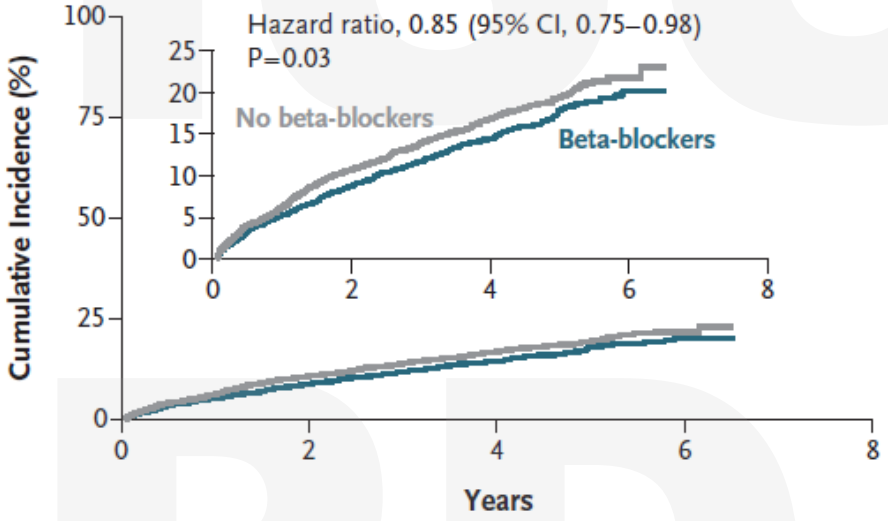


But there are caveats to the AMI data….a 3rd trial of no beta blocker after AMI that did find harm in not prescribing

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction in Patients without Heart Failure

BETAMI trial, 2025



No. at Risk				
No beta-blockers	2791	2202	1089	84
Beta-blockers	2783	2235	1111	96

CONCLUSIONS

Among patients with a myocardial infarction and a left ventricular ejection fraction of at least 40%, beta-blocker therapy led to a lower risk of death or major adverse cardiovascular events than no beta-blocker therapy. (Funded by the Health South-East re-

Why was this trial an outlier? Two issues: 1: reperfusion really matters

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction in Patients without Heart Failure

BETAMI trial, 2025

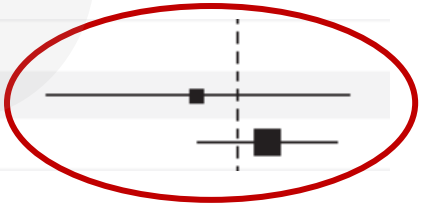
94.5% of the patients underwent a revascularization procedure. A total of 10.5% of the patients

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction without Reduced Ejection Fraction

REBOOT: Even the trials that did not find benefit from β-blockers found trends around revascularization…

Revascularization		
Incomplete	47/471 (28.2)	51/456 (31.5)
Complete	242/3464 (21.3)	225/3484 (19.7)



← β-blocker better

Why was this trial an outlier? Two issues: 2: EF matters, 50 is the new 40!

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction in Patients without Heart Failure

BETAMI trial, 2025

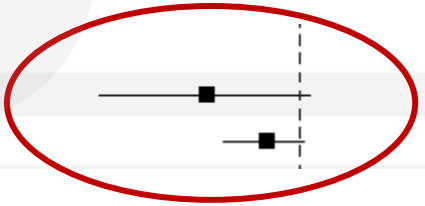
the index event, 84.7% of the patients had a left ventricular ejection fraction of at least 50%, and

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction without Reduced Ejection Fraction

If EF was 40-50%, REBOOT trial data also favored β-blocker

Left ventricular ejection fraction		
40–49%	82/446 (18.4)	95/406 (23.4)
≥50%	312/2333 (13.4)	359/2385 (15.1)

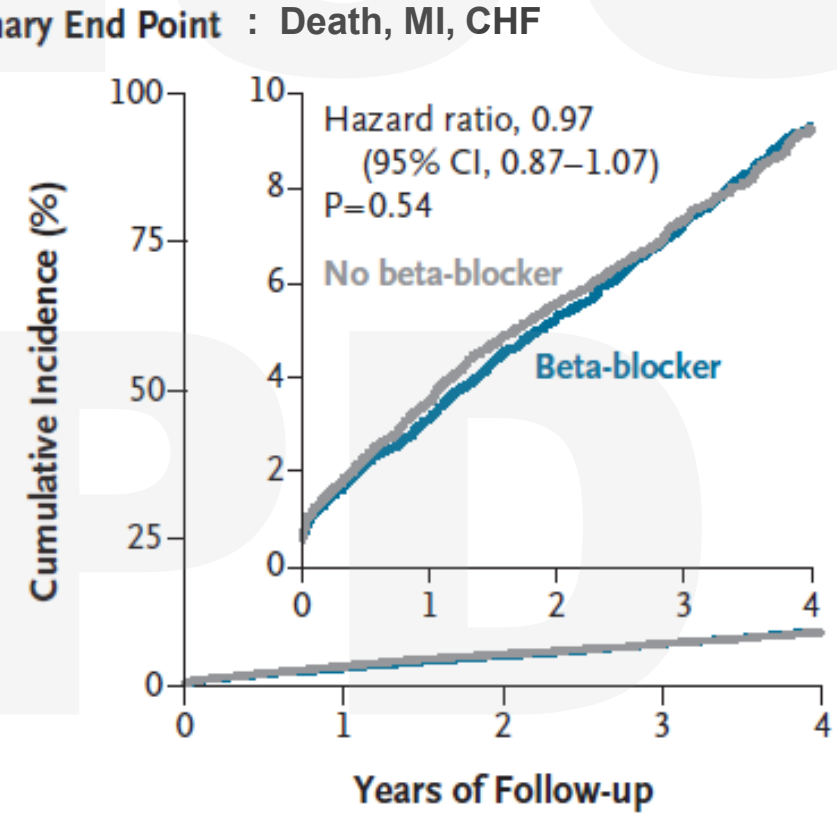


February 2026; Beta blocker Trialists Collaboration study

Beta-Blockers after Myocardial Infarction — Toward Personalized Management

Thomas F. Lüscher, M.D.,[1-5] and Florian A. Wenzl, M.D., Ph.D.[5,6]

In a patient-level meta-analysis of al 3 trials, if EF ≥ 50% and reperfusion was employed (99.4%)…….



From these new trials, on the first question:

1. Do I need to start a better blocker at the time of an AMI?

"no" if the patient was reperfused and does not have reduced EF (< 50%)

We can broadly put this new generation of trials into two camps:

1. Do I need to start a better blocker at time of an AMI?
2. Can I stop a beta-blocker > 1 year after an MI (regardless of how it was acutely managed) as long as no HFrEF?

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Beta-Blocker Interruption or Continuation after Myocardial Infarction

The ABYSS trial, 2024

SMART-DECISION, 2026

ORIGINAL ARTICLE

Discontinuation of Beta-Blocker Therapy after Myocardial Infarction

A **Death, Myocardial Infarction, Stroke, or Hospitalization for Cardiovascular Cause (primary cardiovascular composite end point)**

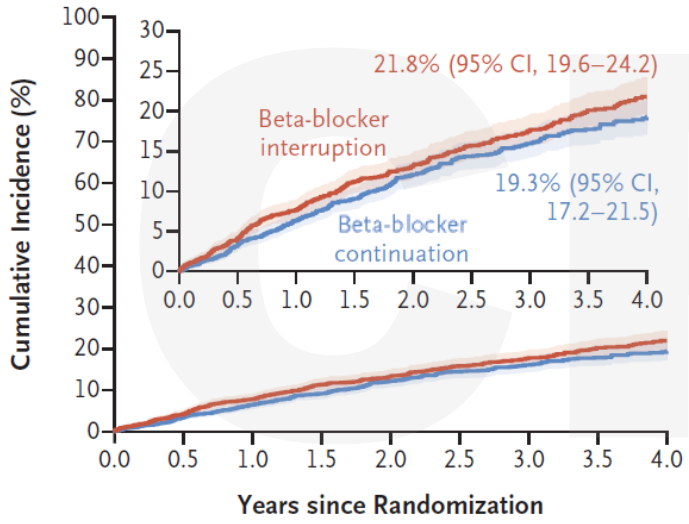
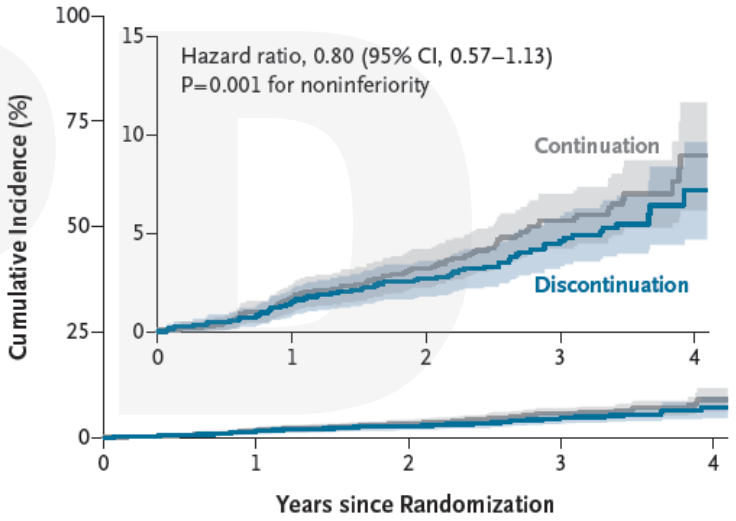


Figure 2. Death from Any Cause, Recurrent Myocardial Infarction, or Hospitalization for Heart Failure.



So, why the discrepant findings in the two trials that looked at stopping β-blockers > 1-year post-AMI?

Actually, ABYSS and SMART-DECISION largely showed the same thing: β-blockers do not reduce recurrent ischemic events but do treat symptomatic angina that could lead to hospitalization

The difference wasn't so much in the study's findings as in the primary composite outcome chosen….

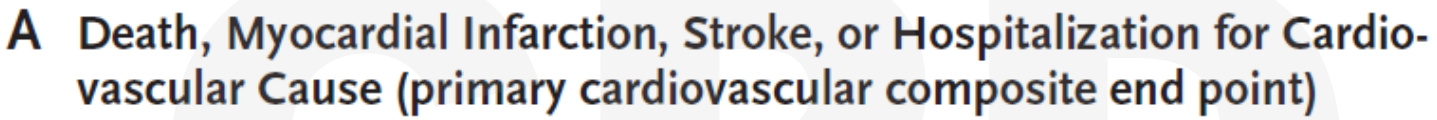


Figure 2. Death from Any Cause, Recurrent Myocardial Infarction, or Hospitalization for Heart Failure.

In the ABYSS trial which found in favor of continuing beta blockade, the benefit was entirely for hospitalization……

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The ABYSS trial, 2024

Beta-Blocker Interruption or Continuation after Myocardial Infarction

End Point	Beta-Blocker Interruption (N=1846)	Beta-Blocker Continuation (N=1852)	Risk Difference (95% CI) (percentage points)
	no. of patients with event (%)		
Primary end point	432 (23.8)	384 (21.1)	2.8 (<0.1 to 5.5)
Death	76 (4.1)	74 (4.0)	0.1 (–1.2 to 1.4)
Myocardial infarction	46 (2.5)	44 (2.4)	0.1 (–0.9 to 1.1)
Stroke	18 (1.0)	19 (1.0)	–0.1 (–0.7 to 0.6)
Hospitalization for cardiovascular reason	349 (18.9)	307 (16.6)	2.3 (–0.1 to 4.8)

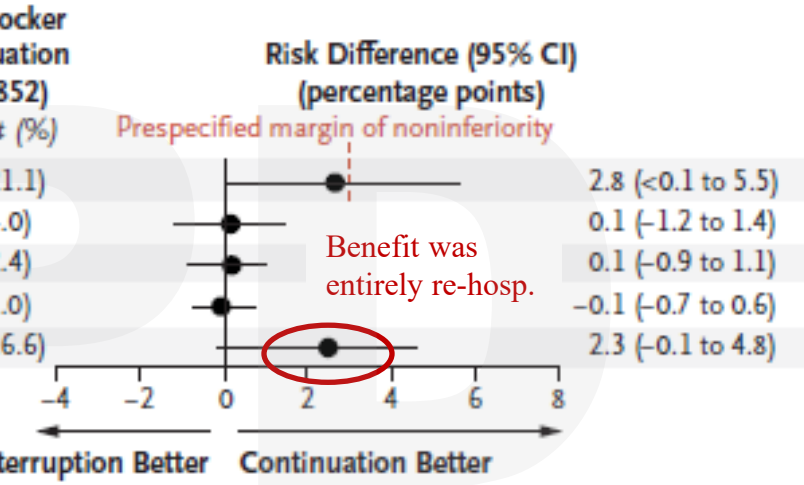

Figure 1. Primary End Point and Its Components.

Q: What was causing hospitalizations in the β-blocker withdrawal patients in ABYSS trial?....

Hospitalization for cardiovascular reason — no. (%)	349 (18.9)	307 (16.6)
Coronary-related reason	263 (14.2)	221 (11.9)
Angina or ischemia	67 (3.6)	55 (3.0)
Angiography	146 (7.9)	117 (6.3)

So, if withdrawing β-blockers in post-MI patients, angina may emerge. But there is no risk of increased ischemic events or mortality

The other trial, SMART-DECISION which found it beneficial to stop beta blockers found similar lack of ischemic benefit……and

ORIGINAL ARTICLE

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SMART-DECISION, 2026

Table 2. Primary and Secondary End Points.*

End Point	Discontinuation of Beta-Blocker (N=1246)		Continuation of Beta-Blocker (N=1294)	
	no. (%)	*events/100 person-yr*	*no. (%)*	*events/100 person-yr*
Primary end point				
Composite of death from any cause, recurrent myocardial infarction, or hospitalization for heart failure†	58 (7.2)	1.57	74 (9.0)	1.95
Secondary end points				
Death from any cause	27 (2.4)	0.60	39 (3.4)	0.85
Recurrent myocardial infarction‡	25 (2.3)	0.67	23 (2.6)	0.60
Hospitalization for heart failure	16 (2.2)	0.43	20 (2.1)	0.52
Hospitalization for cardiovascular cause	78 (7.8)	2.15	87 (11.0)	2.34

To our second question:

1. Do I need to start a beta blocker at the time of an AMI?
2. Can I stop a beta-blocker > 1 year after an MI (regardless of how it was acutely managed) as long as no HFrEF?

We have two trials with different conclusions and probably another 1-2 years until the next ACC/AHA guideline update

Clearly Ok to withdraw β-blocker from standpoint of ischemic events/mortality/CHF.
But, don't forget that beta blockers treat angina and angina can lead to ED visits and angiography

To our second question:

1. Do I need to start a better blocker at the time of an AMI?
2. Can I stop a beta-blocker > 1 year after an MI (regardless of how it was acutely managed) as long as no HFpEF?

Bottom line: From an ischemic standpoint, YES! No increase in vascular events, death or hospitalization for CHF

But, β-blockers are anti-anginal agents withdrawal may lead to more angina which may send a patient to ED and result in hospitalization and/or angiography.

What will the new guidelines say?....

1. Do I need to start a better blocker after AMI if the patient is reperfused?
2. Can I stop a beta-blocker > 1 year after an MI (regardless of how it was acutely managed) as long as no HFpEF?

Hopefully no "Level C" recommendations based on "only expert opinion."

I would predict a dropping of the β-blocker recommendation for AMI if reperfusion was performed and strengthen language around stopping β-blockade > 1 year post-AMI if no HFrEF (or angina)

Conclusions (2026):

1. The role of beta blockade for cardiac indications is still evolving BUT, being beta blocked means a resting HR ~ 60/min

2. No longer first line for HTN (~ decade old) but essential for HFrEF

3. Among agents to treat angina but no longer preferred first line (2023)

4. They have no role in asymptomatic, stable CAD patients…..and therefore no role at some point after an AMI if no angina

5. One year is still the recommended period of beta-blockade after AMI but newer data shows no acute benefit if reperfusion performed

6. I predict: new guidelines (2027? 2028?) will drop recommendation for beta-blockade after AMI if reperfusion performed (regardless of completeness) AND continue to endorse stopping β-blockers > 1 year post AMI…..and reinforce they have no role in asymptomatic CCD

Thank you

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