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Medical Literature 2025

Turning Evidence into Practice

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COLORADO STATE ACP MEETING 2026

Disclosures

- **None**

Learning Objectives

1. ***Describe*** **the primary conclusions of each study**
2. ***Identify*** **changes to your practice**
3. ***Implement*** **these practice changes**

Journals Reviewed

Jan 2025 – Dec 2025

- N Engl J Med
- JAMA; JAMA Intern Med
- J Gen Intern Med
- J Hospit Med, J Am Coll Cardiol, JACC:HF
- Ann Intern Med + ACP J Club
- Lancet, Am J Med, Circulation, BMJ
- ACP Plus, BMJ Online update, J Watch

Acknowledgements

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- **Brad Sharpe, MD**
  UCSF School of Medicine

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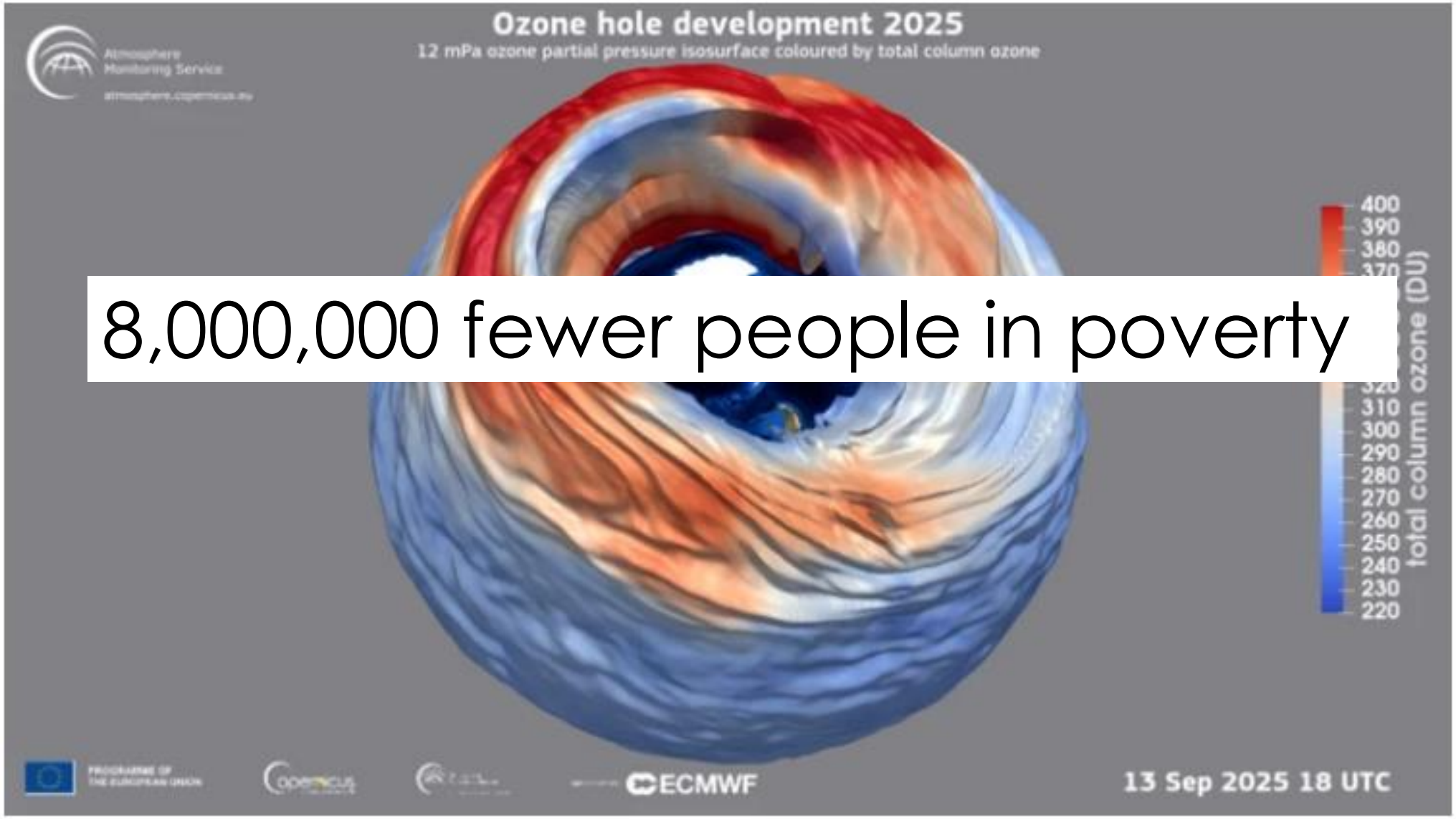
Notable in 2025



8,000,000 fewer people in poverty

The hole in the Antarctic ozone layer has continued to shrink. Credit: CAMS

Roadmap for our Journey Today

- Case 1: Metoprolol in MI?
  - Case 2: Heart failure and HTN
    - Case 3: Food is Medicine
      - Guideline Guidance
        - Practice summary

Roadmap for our Journey Today

Case 1: Metoprolol in MI?

Case 1

64 y/o woman 2d stuttering retrosternal tightness

HTN, CKD2, BPH, + past Tob

142/78, 92, 22, Afeb, SpO2 98%

Uncomfortable; no features of heart failure

12-lead NSR, lateral TWI, no ST elevation

Hs-Troponin 64 → 300

Which are true re: MI and BBs

A. Beta blockers improve long-term outcomes after MI
B. Beta blockers do not improve long-term outcomes after MI
C. The answer must be A or B, right?
D. It can't be that they don't help…I mean…
E. Um, I need more information?

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction in Patients without Heart Failure

Patients: 5574, EF>40%, 7-14d after Type I MI

Treatment: Long-term beta blocker therapy

Comparison: No beta-blocker therapy (open label)

Outcomes: Death + Major Adverse CV Event (MACE) at 3.5 yrs

N Engl J Med 2025;393:1901-11. [**BETAMI-DANBLOCK**]

Table 1. Baseline Characteristics of the Patients.*

Characteristic	Beta-Blockers (N = 2783)	No Beta-Blockers (N = 2791)
Median age (IQR) — yr	63 (55–71)	62 (55–71)
Female sex — no. (%)	601 (21.6)	561 (20.1)
Previous beta-blocker therapy — no./total no. (%)	248/2775 (8.9)	223/2788 (8.0)
Index MI — no./total no. (%)		
ST-segment elevation MI	1330/2782 (47.8)	1316/2791 (47.2)
Medication at discharge ≤30 days after MI — no./total no. (%)		
Aspirin	2637/2783 (94.8)	2656/2791 (95.2)
P2Y12-receptor blocker	2478/2783 (89.0)	2463/2791 (88.2)
Anticoagulants	121/2776 (4.4)	99/2787 (3.6)
ACE inhibitor or ARB	1143/2776 (41.2)	1266/2787 (45.4)
Statin	2692/2776 (97.0)	2719/2787 (97.6)
Ezetimibe	363/2776 (13.1)	339/2787 (12.2)

N Engl J Med 2025;393:1901-11. [**BETAMI-DANBLOCK**]

	No-BB	BB	Abs.	NNT	95% CI
Death+MACE					
Death					
MI					

Results BETAMI-DANBLOCK

	No-BB	BB	Abs.	NNT	95% CI
Death+MACE	16.3%	14.2%	-2.1%	48	0.75-0.98
Death					
MI					

Results BETAMI-DANBLOCK

	No-BB	BB	Abs.	NNT	95% CI
Death+MACE	16.3%	14.2%	-2.1%	48	0.75-0.98
Death	4.4%	4.2%	-0.2%	--	--
MI					

Results BETAMI-DANBLOCK

	No-BB	BB	Abs.	NNT	95% CI
Death+MACE	16.3%	14.2%	-2.1%	48	0.75-0.98
Death	4.4%	4.2%	-0.2%	--	--
MI	6.7%	5.0%	-1.7%	59	0.59-0.92

Results BETAMI-DANBLOCK

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction in Patients without Heart Failure

Patients: 5574, EF>40%, 7-14d after Type I MI

Treatment: Long-term beta blocker therapy

Comparison: No beta-blocker therapy (open label)

Outcomes: Death + Major Adverse CV Event (MACE) at 3.5 yrs

Conclusion: **Post-MI BB reduce composite death and MACE**

N Engl J Med 2025;393:1901-11. [**BETAMI-DANBLOCK**]

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction without Reduced Ejection Fraction

Patients: 4243, EF>40%, after Type I MI, up to 14 d post DC

Treatment: Long-term beta blocker therapy

Comparison: No beta-blocker therapy (open label)

Outcomes: Death + MI + Hospitalization for HF at 3.7 yrs

N Engl J Med 2025;393:1889-1900. [**REBOOT-CNIC**]

	No-BB	BB	Abs.	NNH/T	95% CI
Death+MI+HHF					
Death					
MI					
Hosp for HF					

Results REBOOT-CNIC

	No-BB	BB	Abs.	NNH/T	95% CI
Death+MI+HHF	21.7%	22.5%	+0.84%	--	--
Death					
MI					
Hosp for HF					

Results REBOOT-CNIC

	No-BB	BB	Abs.	NNH/T	95% CI
Death+MI+HHF	21.7%	22.5%	+0.84%	--	--
Death	10.5%	11.2%	+0.66%	--	--
MI					
Hosp for HF					

Results REBOOT-CNIC

	No-BB	BB	Abs.	NNH/T	95% CI
Death+MI+HHF	21.7%	22.5%	+0.84%	--	--
Death	10.5%	11.2%	+0.66%	--	--
MI	10.1%	10.2%	+0.09%	--	--
Hosp for HF					

Results REBOOT-CNIC

	No-BB	BB	Abs.	NNH/T	95% CI
Death+MI+HHF	21.7%	22.5%	+0.84%	--	--
Death	10.5%	11.2%	+0.66%	--	--
MI	10.1%	10.2%	+0.09%	--	--
Hosp for HF	3.0%	2.7%	-0.32%	--	--

Results REBOOT-CNIC

ORIGINAL ARTICLE

Beta-Blockers after Myocardial Infarction without Reduced Ejection Fraction

Patients: 4243, EF>40%, after Type I MI, up to 14 d post DC

Treatment: Long-term beta blocker therapy

Comparison: No beta-blocker therapy (open label)

Outcomes: Death + MI + Hospitalization for HF at 3.7 yrs

Conclusion: **Post-MI BB do not reduce Death + MI + HHF**

N Engl J Med 2025;393:1889-1900. [**REBOOT-CNIC**]

β blockers after myocardial infarction with mildly reduced ejection fraction: an individual patient data meta-analysis of randomised controlled trials

Patients: 1885, LVEF 40-49%, REBOOT, BETAMI, DANBLOCK, CAPITAL RCT, within 14 days of Type 1 MI

Treatment: Long-term beta blocker therapy

Comparison: No beta-blocker therapy (open label)

Outcomes: Death + MI + Hospitalization for HF at 3.7 yrs

Lancet 2025;406:1128-37

	No-BB	BB	Abs.	NNT	95% CI
Death+MI+HHF					
Death					
MI					
Hosp for HF					

Results REBOOT, BETAMI, DANBLOCK, CAPITAI-RCT

	No-BB	BB	Abs.	NNT	95% CI
Death+MI+HHF	14.4%	10.7%	3.7%	27	0.58-0.97
Death					
MI					
Hosp for HF					

Results REBOOT, BETAMI, DANBLOCK, CAPITAI-RCT

	No-BB	BB	Abs.	NNT	95% CI
Death+MI+HHF	14.4%	10.7%	3.7%	27	0.58-0.97
Death	7.8%	5.9%	1.9%	--	0.55-1.11
MI					
Hosp for HF					

Results REBOOT, BETAMI, DANBLOCK, CAPITAI-RCT

	No-BB	BB	Abs.	NNT	95% CI
Death+MI+HHF	14.4%	10.7%	3.7%	27	0.58-0.97
Death	7.8%	5.9%	1.9%	--	0.55-1.11
MI	5.1%	4.0%	1.1%	--	0.50-1.18
Hosp for HF					

Results REBOOT, BETAMI, DANBLOCK, CAPITAI-RCT

	No-BB	BB	Abs.	NNT	95% CI
Death+MI+HHF	14.4%	10.7%	3.7%	27	0.58-0.97
Death	7.8%	5.9%	1.9%	--	0.55-1.11
MI	5.1%	4.0%	1.1%	--	0.50-1.18
Hosp for HF	4.4%	3.0%	1.4%	--	0.44-1.14

Results REBOOT, BETAMI, DANBLOCK, CAPITAI-RCT

β blockers after myocardial infarction with mildly reduced ejection fraction: an individual patient data meta-analysis of randomised controlled trials

Patients: 1885, LVEF 40-49%, REBOOT, BETAMI, DANBLOCK, CAPITAL RCT, within 14 days of Type 1 MI

Treatment: Long-term beta blocker therapy

Comparison: No beta-blocker therapy (open label)

Outcomes: Death + MI + Hospitalization for HF at 3.7 yrs

Conclusion: **Post-MI BB reduce Death + MI + HHF, EF 40-49%**

Lancet 2025;406:1128-37

Recommendation for Beta-Blocker Therapy
Referenced studies that support recommendation are summarized in the Evidence Table.

	RECOMMENDATION
1 A	1. In patients with ACS without contraindications, early (<24 hours) initiation of oral beta-blocker therapy is recommended to reduce risk of reinfarction and ventricular arrhythmias.[1-5]

J Am Coll Cardiol 2025;85(22):2135-2237

A reasonable case could be made to retire β-blockers from the guidelines based on the current "absence of evidence." A more charitable approach would be to downgrade the recommendation to Class 2b and wait for the results of the upcoming trials for final adjudication.

of the upcoming trials (DANBLOCK [Danish Trial of Beta Blocker Treatment After Myocardial Infarction Without Reduced Ejection Fraction], NCT03778554; BETAMI [BEtablocker Treatment After Acute Myocardial Infarction in Patients Without Reduced Left Ventricular Systolic Function], NCT03646357; REBOOT [TREatment With Beta-blockers After myOcardial Infarction withOut Reduced Ejection fracTion], NCT03596385; SMART-DECISION [Long-term Beta-blocker Therapy After Acute Myocardial Infarction], NCT04769362; and ABBREVIATE [De-Adoption of Beta-Blockers in Patients With Stable Ischemic Heart Disease], NCT05081999) re-evaluating

J Am Coll Cardiol 2025;85(22):2096-2099

The Clinical Bottom Line for BB after MI

- Of uncertain benefit overall
- Can be harmful (CV shock, Heart Block – COMMIT trial)
- Consider through the lenses of LV systolic dysfunction, angina, and antiarrythmic properties – without these, opportunity to de-prescribe
- Expect next ACC-AHA Guidelines to downgrade

Which are true re: MI and BBs

A. Beta blockers improve long-term outcomes after MI
B. Beta blockers do not improve long-term outcomes after MI
C. The answer must be A or B, right?
D. It can't be that they don't help…I mean…
E. Um, I need more information?

Roadmap for our Journey Today

Case 1: Metoprolol in MI?

Case 2: Heart failure and HTN

Case 2

68 y/o man for clinic visit

Longstanding severe HTN, HFrEF 35%, ICD

168/96, 92, 22, Afeb, SpO2 98%

Comfortable; no inc JVD, lungs clear, +S4, no edema

ASA, ARB-ARNI, SGLT2-, BB, statin; furosemide

Spirinolactone → gynecomastia

K+ 4.0, creat 1.23 stable, ferritin 75, Tsat 18%

Which are true re: HF and HTN

A. IV iron reduces heart failure readmissions
B. Digitalis reduces heart failure readmissions
C. Maintaining K+ over 4.5 reduces heart failure readmissions
D. Heart failure readmissions questions increase my own BP

JAMA | Original Investigation

Intravenous Ferric Carboxymaltose in Heart Failure With Iron Deficiency
The FAIR-HF2 DZHK05 Randomized Clinical Trial

Stefan D. Anker, MD, PhD; Tim Friede, PhD; Javed Butler, MD, MPH; Khawaja M. Talha, MBBS; Marius Placzek, PhD; Monika Diek, MA; Anna Nosko, PhD; Adriane Stas, BA; Stefan Kluge, MD; Dominik Jarczak, MD; Geraldine deHeer, MD; Meike Rybczynski, MD; Antoni Bayés-Genís, MD, PhD; Michael Böhm, MD; Andrew J. S. Coats, MD; Frank Edelmann, MD; Gerasimos Filippatos, MD; Gerd Hasenfuß, MD; Wilhelm Haverkamp, MD; Mitja Lainscak, MD, PhD; Ulf Landmesser, MD; Iain C. Macdougall, MD; Bela Merkely, MD, PhD, DSc; Burkert M. Pieske, MD; Fausto J. Pinto, MD, PhD; Tienush Rassaf, MD; Jennifer K. Visser-Rogers, PhD; Giuseppe Rosano, PhD; Maurizio Volterrani, MD; Stephan von Haehling, MD, PhD; Markus S. Anker, MD; Wolfram Doehner, MD, PhD; Hüseyin Ince, MD; Friedrich Koehler, MD; Gianluigi Savarese, MD; Muhammad Shahzeb Khan, MD, MSc; Ursula Rauch-Kröhnert, MD; Tommaso Gori, MD; Teresa Trenkwalder, MD; Ibrahim Akin, MD; Christina Paitazoglou, MD; Iwona Kobielusz-Gembala, MD; Luca Kuthi, MD; Norbert Frey, MD; Manuela Licka, MD; Stefan Kääb, MD; Karl-Ludwig Laugwitz, MD; Piotr Ponikowski, MD, PhD; Mahir Karakas, MD, PhD, MBA

JAMA 2025;333(22):1965-1976

JAMA | Original Investigation

Intravenous Ferric Carboxymaltose in Heart Failure With Iron Deficiency

The FAIR-HF2 DZHK05 Randomized Clinical Trial

Patients: 1105 LVEF<45%, ferritin<100 or Tsat<20%, if 100-299

Treatment: IV ferric carboxymaltose 2g, then 500mg Q 4m

Comparison: Saline placebo (double-blinded)

Outcomes: CV death or 1st HF Hospitalization, Total HF Hospitalizations, CV death or HFF if Tsat<20%

JAMA 2025;333(22):1965-1976

	Placebo	IV Iron	Abs.	NNT	95% CI
CV death/HHF1					
Total HHF					
If Tsat <20%					

Results FAIR-HF2

	Placebo	IV Iron	Abs.	NNT	95% CI
CV death/HHF1	21.9%	16.7%	-5.2%	20	0.63-0.99
Total HHF					
If Tsat <20%					

Results FAIR-HF2

	Placebo	IV Iron	Abs.	NNT	95% CI
CV death/HHF1	21.9%	16.7%	-5.2%	20	0.63-0.99
Total HHF	33.4%	26.4%	7.0%	--	0.60-0.106
If Tsat <20%					

Results FAIR-HF2

	Placebo	IV Iron	Abs.	NNT	95% CI
CV death/HHF1	21.9%	16.7%	-5.2%	20	0.63-0.99
Total HHF	33.4%	26.4%	7.0%	--	0.60-0.106
If Tsat <20%	25.6%	18.9%	-6.7%	--	0.61-1.02

Results FAIR-HF2

JAMA | Original Investigation

Intravenous Ferric Carboxymaltose in Heart Failure With Iron Deficiency

The FAIR-HF2 DZHK05 Randomized Clinical Trial

Patients: 1105 LVEF<45%, ferritin<100 or Tsat<20%, if 100-299

Treatment: IV ferric carboxymaltose 2g, then 500mg Q 4m

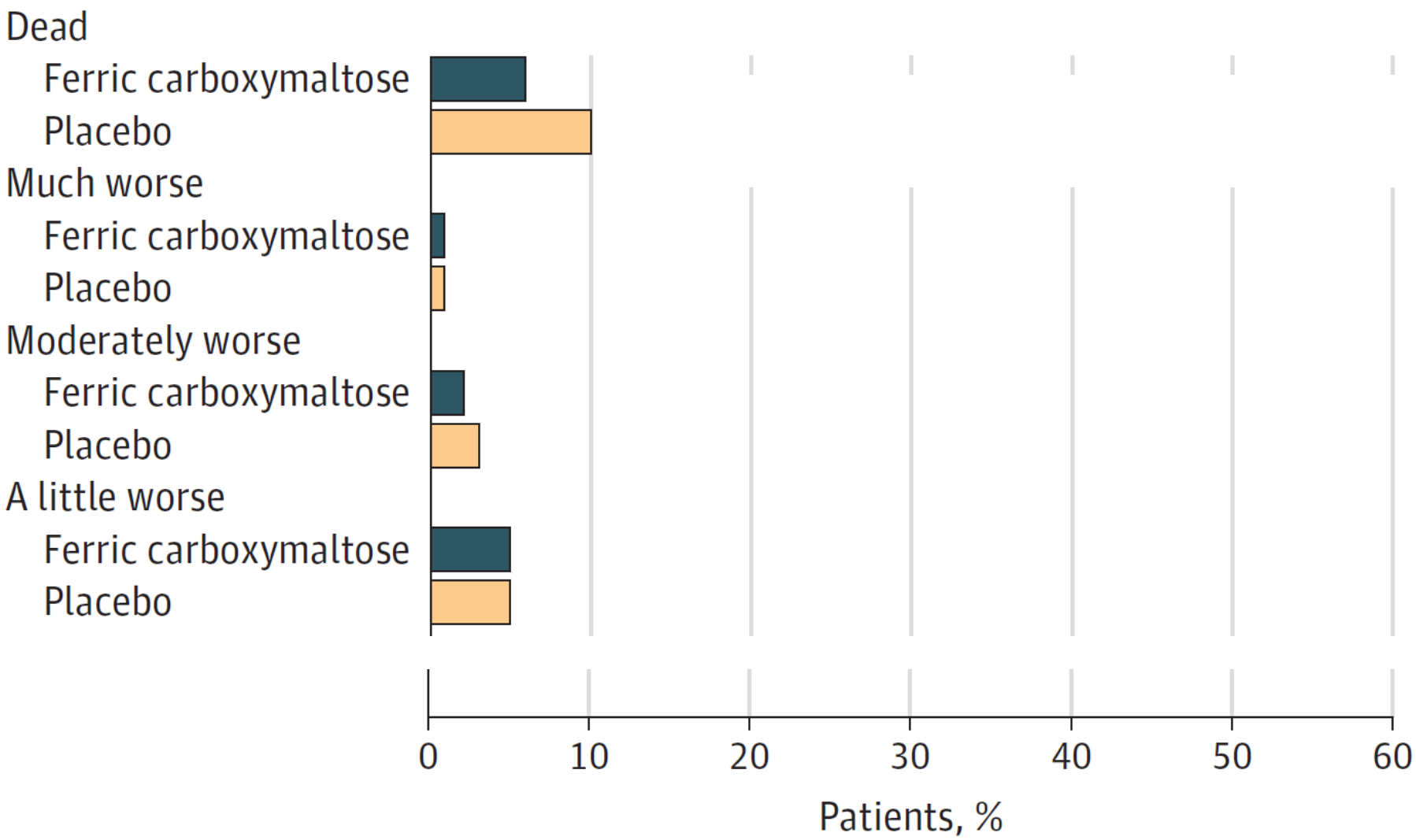
Comparison: Saline placebo (double-blinded)

Outcomes: CV death or 1st HF Hospitalization, Total HF Hospitalizations, CV death or HFF if Tsat<20%

Conclusion: In pts w/ HFrEF and IDA, IV Iron did not reduce CV death or 1st HF Hospitalization…

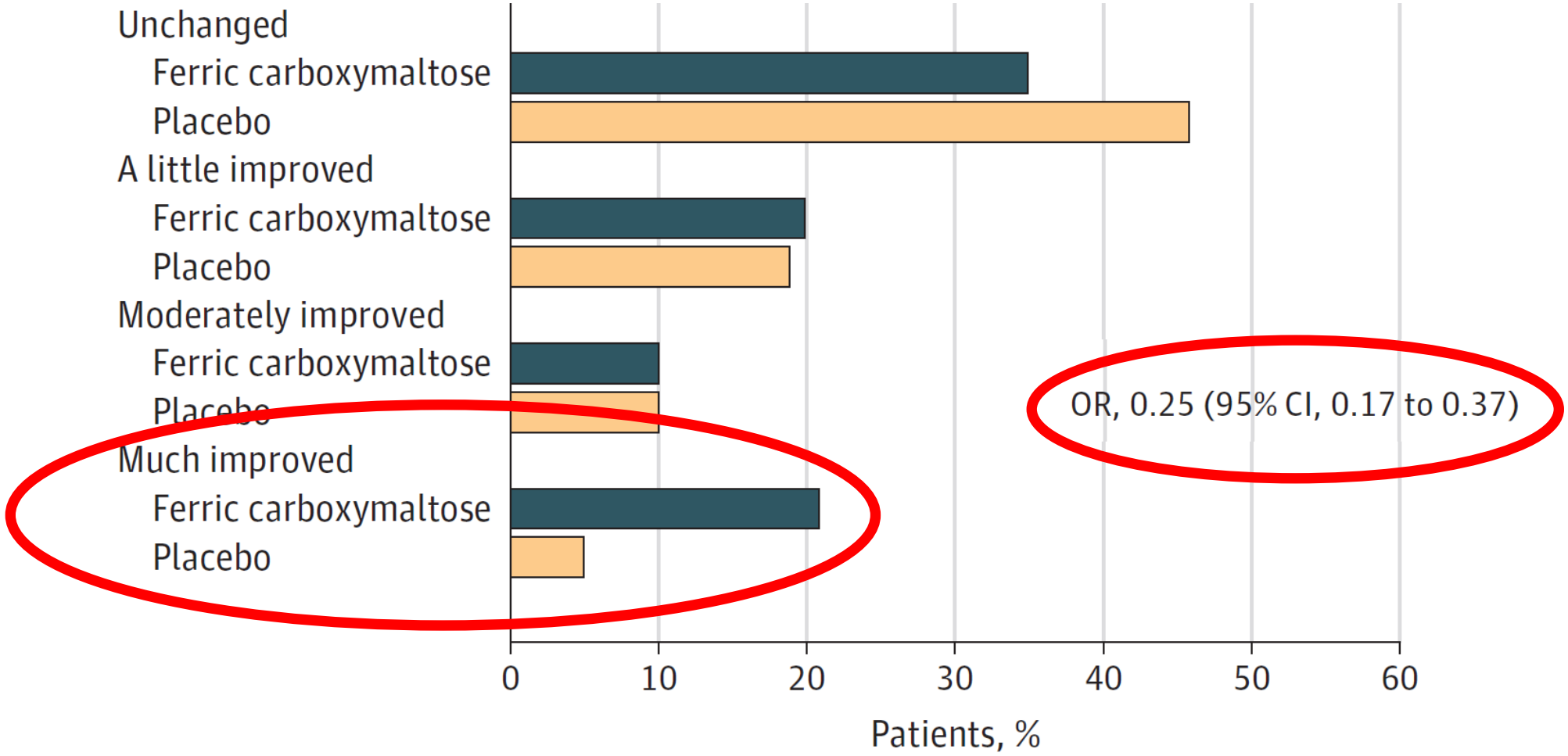
JAMA 2025;333(22):1965-1976

D Patient-reported global assessment at 12 mo



JAMA 2025;333(22):1965-1976

D Patient-reported global assessment at 12 mo



JAMA 2025;333(22):1965-1976

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The Clinical Bottom Line on IV iron in HFrEF

- Patients feel better
- Reduced CV death + HF hospitalization p=0.04
- Trends towards improved hard outcomes

ORIGINAL ARTICLE

Digitoxin in Patients with Heart Failure and Reduced Ejection Fraction

N Engl J Med 2025, online August 29, 2025

ORIGINAL ARTICLE

Digitoxin in Patients with Heart Failure and Reduced Ejection Fraction

Patients: 1212 LVEF<30% NYHA II, LVEF<40% NYHA III or IV

Treatment: Digitoxin 0.07 mg titrated to 8-18 ng/mL

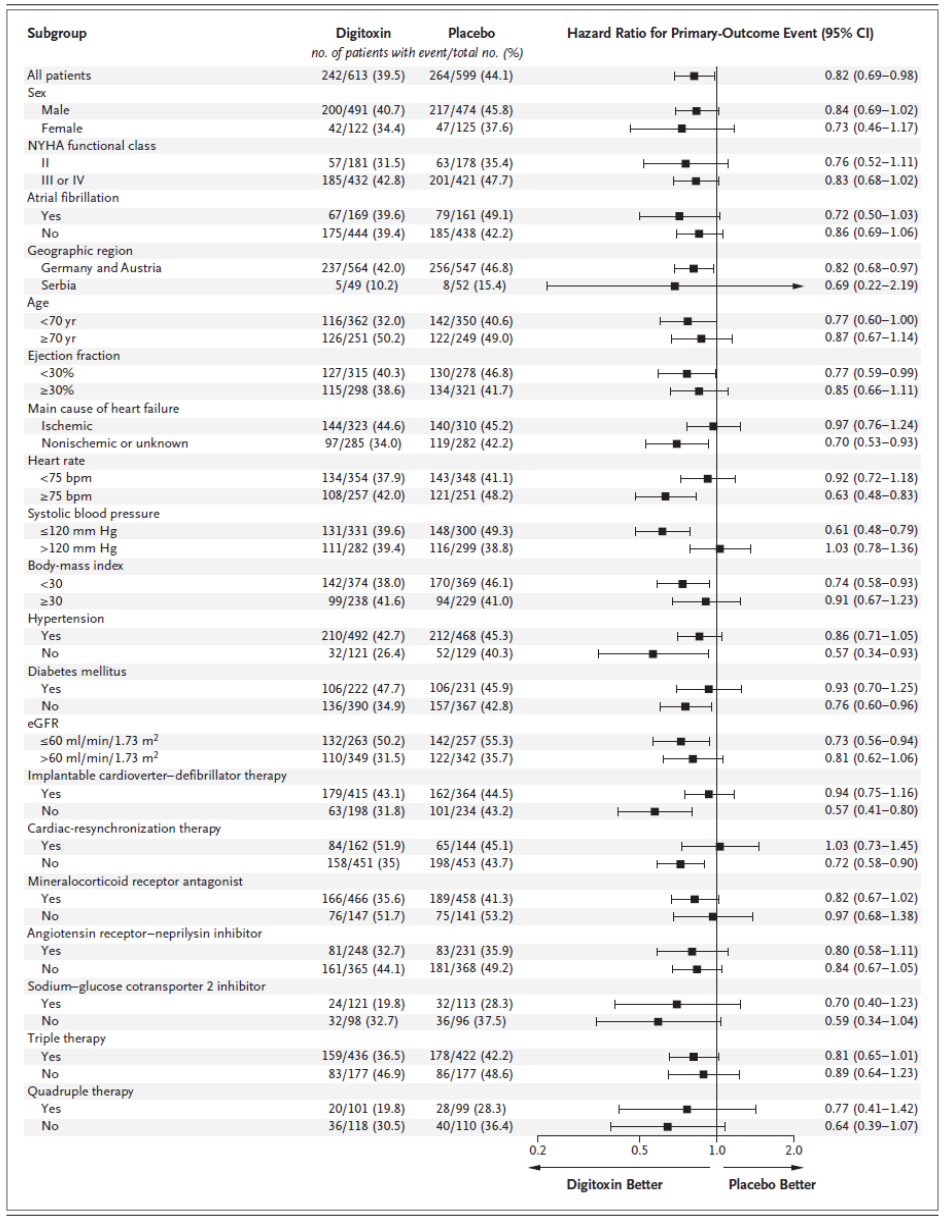
Comparison: Placebo

Outcomes: 1st of either all cause death or HF hospitalization

N Engl J Med 2025, online August 29, 2025

	Placebo	Digitoxin	Abs.	NNT	95% CI
Death or 1st HHF	44.1%	39.5%	-4.6%	22	0.69-0.98

Results DIGIT-HF



Characteristic	Digitoxin (N=613)	Placebo (N=599)
Age — yr	66.0±11.1	65.8±11.4
Female sex — no. (%)	122 (19.9)	125 (20.9)
NYHA functional class -		
II	181 (29.5)	178 (29.7)
III	408 (66.6)	399 (66.6)
IV	24 (3.9)	22 (3.7)

N Engl J Med 2025, online August 29, 2025

ORIGINAL ARTICLE

Digitoxin in Patients with Heart Failure and Reduced Ejection Fraction

Patients: 1212 LVEF<30% NYHA II, LVEF<40% NYHA III or IV

Treatment: Digitoxin 0.07 mg titrated to 8-18 ng/mL

Comparison: Placebo

Outcomes: 1st of either all cause death or HF hospitalization

Conclusion: In pts w/ HFrEF NYHA II-IV, digitoxin reduces all cause death or HF hospitalization

N Engl J Med 2025, online August 29, 2025

Increasing the Potassium Level in Patients at High Risk for Ventricular Arrhythmias

RCT of ICD patients K+ ≤ 4.3 mmol/L

Target K+ 4.5 to 5.0 using K+ supplements, MRA, diet

Outcome: VT, ICD shock, death, hosp for arrythmia / HF

At 40 months, dec from 29.2% to 22.7%, p=0.01, NNT 16

Improvement the same whether K+ or MRA!

N Engl J Med 2025, online August 29, 2025 [POTCAST]

Which are true re: HF and HTN

A. IV iron reduces heart failure readmissions
B. Digitalis reduces heart failure readmissions
C. Maintaining K+ over 4.5 reduces heart failure readmissions
D. Heart failure readmissions questions increase my own BP

HF HTN Short Takes

SR+Meta: Treating IDA in HF (IV) significantly reduces CV events (12-month RR 0.75 (0.25-0.89). *Nature Med* 2025;31:2640–2646.

Amiloride noninferior to spironolactone for resistant HTN. *JAMA* 2025;333:2073-2082. Think about it if gynecomastia.

SBP "*at least* < 130 mm Hg" in ACC-AHA HTN CPG. *J Am Coll Cardiol* 2025;86:1567-1678. Ideal amount of alcohol? None.

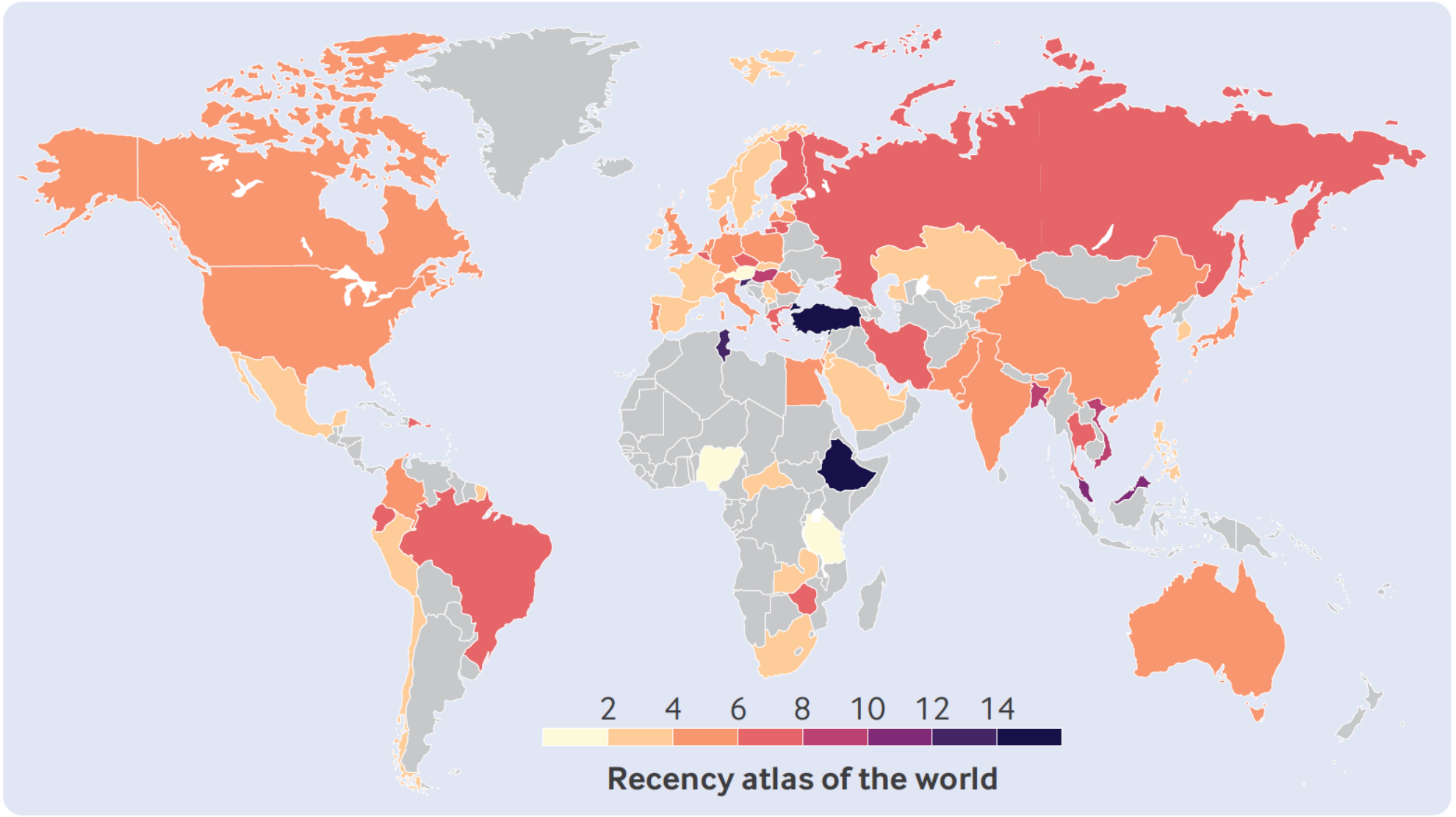
How recent is recent? Retrospective analysis of suspiciously timeless citations

Alejandro Díez-Vidal,[1,2] Jose R Arribas[1,2,3,4]

RESULTS

The age of the cited "recent" studies varied widely. The citation lag ranged from 0 to 37 years (mean 5.53 years, median 4 years, interquartile range 2-7). The most frequent lag was one year (n=159, 15.9%), and 177 references (17.7%) were at least 10 years old.

BMJ 2025,391:e086941



BMJ 2025,391:e086941

Table 1 | Citation lag (years) by medical specialty

Medical specialty	No of articles (%)	Median citation lag (IQR)	Most frequent citation la
Global sample	1000 (100)	4 (2-7)	1 (159)
Critical care	6 (0.6)	1.5 (1-4.25)	1 (2)
Infectious diseases	42 (4.2)	2 (1-4)	1 (11)
Genetics	21 (2.1)	2 (1-4)	1 (8)
Immunology	21 (2.1)	2 (1-5)	1 (6)
Radiology	6 (0.6)	2 (1-12)	1 (2)
Pulmonology	22 (2.2)	2.5 (1-3)	1 (9)
Dermatology	8 (0.8)	2.5 (0.75-4)	4 (3)
Public health	89 (8.9)	3 (2-6)	2 (16)
Cardiology	59 (5.9)	3 (2-6)	2 (13)
Microbiology	23 (2.3)	3 (1.5-8.5)	1 (4)
Haematology	19 (1.9)	3 (2-6.5)	2 (7)
Urology	7 (0.7)	3 (2.5-5.5)	3 (2)
Palliative care	5 (0.5)	3 (1-3)	3 (2)
Medical humanities	6 (0.6)	3.5 (2-7.25)	2 (2)
Oncology	125 (12.5)	4 (1-7)	1 (20)
Neurology	116 (11.6)	4 (2-8)	2 (21)
Mental health	60 (6.0)	4 (2-9)	1 (9)
Endocrinology	50 (5.0)	4 (2-6)	1 (9)
Gastroenterology	37 (3.7)	4 (3-7)	2 (8)
Pharmacology	22 (2.2)	4 (2-7.5)	2 (5)
Rheumatology	18 (1.8)	4 (1.25-5.75)	4 (4)
Ophthalmology	17 (1.7)	4 (3-7)	3 (3)
General surgery	9 (0.9)	4 (3-6)	3 (3)
Medical informatics	7 (0.7)	4 (1-6)	1 (2)
Environmental science	6 (0.6)	4 (4-4)	4 (4)
Otolaryngology	5 (0.5)	4 (2-8)	—
Obstetrics and gynaecology	16 (1.6)	4.5 (2.75-6.5)	5 (3)
Biomedical engineering	14 (1.4)	4.5 (2.25-5)	5 (4)
Anaesthesiology	10 (1.0)	4.5 (3-6.5)	2 (2)
Biology	40 (4.0)	5 (2-9)	2 (6)
Neurosurgery	6 (0.6)	5 (1.25-16.25)	1 (2)
Orthopaedics	36 (3.6)	6 (1.75-9)	1 (8)
Chemistry	5 (0.5)	6 (1.75-9)	—
Paediatrics	24 (2.4)	6.5 (3.75-12.75)	2 (4)
Nephrology	12 (1.2)	8.5 (3.75-10.5)	1 (2)
Veterinary medicine	7 (0.7)	9 (7-17)	17 (2)
Dentistry	5 (0.5)	14 (5-17)	—

Table 1 | Citation lag (years) by medical specialty

Medical specialty	No of articles (%)	Median citation lag (IQR)	Most frequent citation lag
Paediatrics	24 (2.4)	6.5 (3.75-12.75)	2 (4)
Nephrology	12 (1.2)	8.5 (3.75-10.5)	1 (2)
Veterinary medicine	7 (0.7)	9 (7-17)	17 (2)
Dentistry	5 (0.5)	14 (5-17)	—

BMJ 2025,391:e086941

Roadmap for our Journey Today

Case 1: Metoprolol in MI?

Case 2: Heart failure and HTN

Case 3: Food is Medicine

Case 3

26-90 y/o medical professional attending a statewide CME event.

You consider yourself "pretty healthy."

Recently, you are aware that a new "food pyramid" has been published.

Which are true re: Food Pyramid

A. Emphasizes eating whole foods – no ultra-processed foods
B. Emphasizes increased protein intake, including red meat
C. Recommends limiting whole grains
D. Does not mention bacon
E. All of the above are true

The New Pyramid

Ultraprocessed Foods and Their Association With Cardiometabolic Health: Evidence, Gaps, and Opportunities: A Science Advisory From the American Heart Association

1. **Choose a lower proportion of ultraprocessed foods, by mostly including whole vegetables, fruits, nuts, seeds, legumes, whole grains, nontropical liquid plant oils, and low-fat dairy and fish, seafood, and, if meat or poultry is desired, choose lean cuts and unprocessed forms**

2. **Limit UPFs and non-UPFs that are HFSS. If choosing HFSS foods, choose less-processed versions**

Circulation 2025,152:e32-e46

Less processed

More processed

Least healthy foods (including junk foods) Less healthy nutritional composition Highly marketed, available, and *relatively* inexpensive and convenient	Moderately healthy foods	Healthier foods Healthier nutritional composition Limited marketing and availability, relatively expensive, and requires more cooking skill
High-fat red meat, pork (eg, steak, ribs), butter, lard, beef tallow, tropical oils, 100% fruit juice, sour cream, sugar, honey, maple syrup Crackers, sweetened dried and canned fruit, brined vegetables Tortilla or potato-based chips (made with few ingredients and less processing) French fries	White rice and pastas, full fat plain milk, freshly made refined grain bread, salted nuts	Fresh or frozen fruits, vegetables without added sugars or salt, whole grains (eg, oats, brown rice), unsalted nuts, seeds, legumes, liquid plant oils, low-fat plain milk or yogurt, lean, unprocessed meat or poultry, fish and seafood, unsweetened beverages, and water; dried beans/legumes
Processed meat (eg, chicken nuggets, sausage, hot dogs), sugar-sweetened beverages (eg, sodas, energy drinks), cheese products (eg, liquid cheese products), cookies, candies, gummy fruit snacks, refined grain breads, rolls, tortillas (ie, "white" bread), dairy-based desserts (eg, ice cream), frozen and shelf stable ready-to-heat meals made with refined grains, high fats or processed meats (eg, pizza, instant noodles, boxed macaroni and cheese), some canned or instant soups, canned fruits in syrup, tortilla and potato-based chips (flavored and multi-ingredients)	Canned fruits in light syrup or 100% fruit juice, hard cheese (eg, cheddar), egg replacements, prepared/ convenience meals made with food items from the Healthier Foods (green) column Low sodium/low fat canned soups Canned beans or legumes (with salt)	Lightly salted/flavored nuts, seeds, and legumes (eg, baked beans) Low-sodium canned beans/legumes; low sodium canned protein in water (eg, canned salmon, tuna, chicken) Unsweetened dried fruit–based snacks Low-sodium whole grain breads and crackers; lightly or unsweetened high fiber cereal Plant-based meat and dairy alternatives that are low in sodium, added sugars, and saturated fat (eg, soy milk, tofu)

Lifestyle Short Takes

Among 60-79 at risk for dementia, structured lifestyle intervention significantly improved cognition at 2 yrs. *JAMA* 2025;334:681–691.

Step patterns matter – fewer longer "bouts", esp > 15 min, for CV health. *Ann Intern Med* 2025;178:1718-1727.

Structured exercise increases disease free interval, maybe mortality, after adjuvant colorectal ca rx. *N Engl J Med* 2025;393:13-25.

Which are true re: Food Pyramid

A. Emphasizes eating whole foods – no ultra-processed foods
B. Emphasizes increased protein intake, including red meat
C. Recommends limiting whole grains
D. Does not mention bacon
E. All of the above are true

Roadmap for our Journey Today

Case 1: Metoprolol in MI?

↳ **Case 2: Heart failure and HTN**

↳ **Case 3: Food is Medicine**

↳ **Guideline Guidance**

CLINICAL PRACTICE GUIDELINE

2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes

A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

- **Target LDL-C < 55 mg/DL; high-potency statin +**
- **DAPT for 12 months unless high bleeding risk (omit ASA after 1-4 weeks if anticoagulated)**

J Am Coll Cardiol 2025,85(22):2135-2237

AMERICAN THORACIC SOCIETY DOCUMENTS

Diagnosis and Management of Community-acquired Pneumonia
An Official American Thoracic Society Clinical Practice Guideline

- **See Dr. Michele Barron's ID Updates Presentation!**

Am J Respir Crit Care Med 2025 10.1164/rccm.202507-1692ST

World Health Organization

Screening for Osteoporosis to Prevent Fractures
US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

Population	Recommendation	Grade
Women 65 years or older	The USPSTF recommends screening for osteoporosis to prevent osteoporotic fractures in women 65 years or older. See the Practice Considerations section for more information on screening tests.	B
Postmenopausal women younger than 65 years with 1 or more risk factors for osteoporosis	The USPSTF recommends screening for osteoporosis to prevent osteoporotic fractures in postmenopausal women younger than 65 years who are at increased risk for an osteoporotic fracture as estimated by clinical risk assessment. See the Practice Considerations section for more information on risk assessment and screening tests.	B
Men	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for osteoporosis to prevent osteoporotic fractures in men. See the Practice Considerations section for suggestions for practice regarding the I statement.	I

JAMA 2025,333(6):498-508

Roadmap for our Journey Today

Case 1: Metoprolol in MI?

- **Case 2: Heart failure and HTN**
  - **Case 3: Food is Medicine**
    - **Guideline Guidance**
      - **Practice summary**

Misc. Short Takes

FDA approves genetic liraglutide. *JAMA* 2025;333(9):746.

Updated Vaccine Efficacy Data. *N Engl J Med* 2025;393:2221-42.

High-Dose Flu Vaccine+. Lancet 2025;406:2425-34.

SR and Meta of RCTs: In A fib + CAD hx, DOAC monotherapy as protective as DOAC + Antiplt with sig less bleeding. Less is more. *J Am Coll Cardiol* 2025;85:1198-1203. [AQUATIC NEJM]

Misc. Short Takes

Carvedilol effective in advanced cirrhosis. *Am J Gastroenterol* 2025; published online July 21, 2025.

Target SBP<120 in T2DM [BPROAD]. *N Engl J Med* 2025;393:1155-67.

Practice Summary

Things to Do:

1. **IV Iron in HF EF<45% for quality of life**
2. **Maintain K+ 4.5-5.0 in at-risk heart failure patients**
3. **Target SBP < 120 mm Hg in Type 2 DM with HTN**
4. **Target SBP "at least" < 130 in non-DM HTN**
5. **Recommend minimal/no consumption ultra-processed foods**

Practice Summary

Things to Do:

6. **Prescribe whole foods, high in vegetables, legumes, beans, nuts, seeds, (low-mercury) fish.**
7. **Recommend walking with at least 15 minutes daily "bouts."**
8. **High-dose influenza vaccination**

Practice Summary

Things to Consider:

1. **Digitalis in HFrEF esp NYHA Class II and III**
2. **Amiloride as an alternative to spironolactone in resistant HTN**
3. **Carvedilol over other NSBB in cirrhosis with ascites**

Practice Summary

Things Not to Do:

1. **Reflexive treatment with beta blockers after MI**
2. **Endorse consumption high fat meats like red meat or pork**
3. **Continue ASA + DOAC in patients with CAD>12 months and Afib/VTE – DOAC only**

THANK YOU!

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