Proč se nebát
pacienta s ICHS

Michal Lipš
Praha

XVII. Konference AKUTNĚ.CZ

Epidemiologie kardiovaskulárních nemocí

- **300 mio** operací v celém světě
- Vícero KV rizik u poloviny pacientů starších **45 let**
- Ateroskleroza u **25%** operovaných
- Úmrtí, IM či CMP u **1 z 33** operovaných nad 45 let

Smilowitz NR et al. Perioperative major adverse Cardiovascular and cerebrovascular events associated with noncardiac surgery. JAMA Cardiol. 2017;2:181–187.

pan Hodný

ICHDK, klaudikace po 50m

Indikován Ao-bifemo bypass

Aterosklerosis multiplex

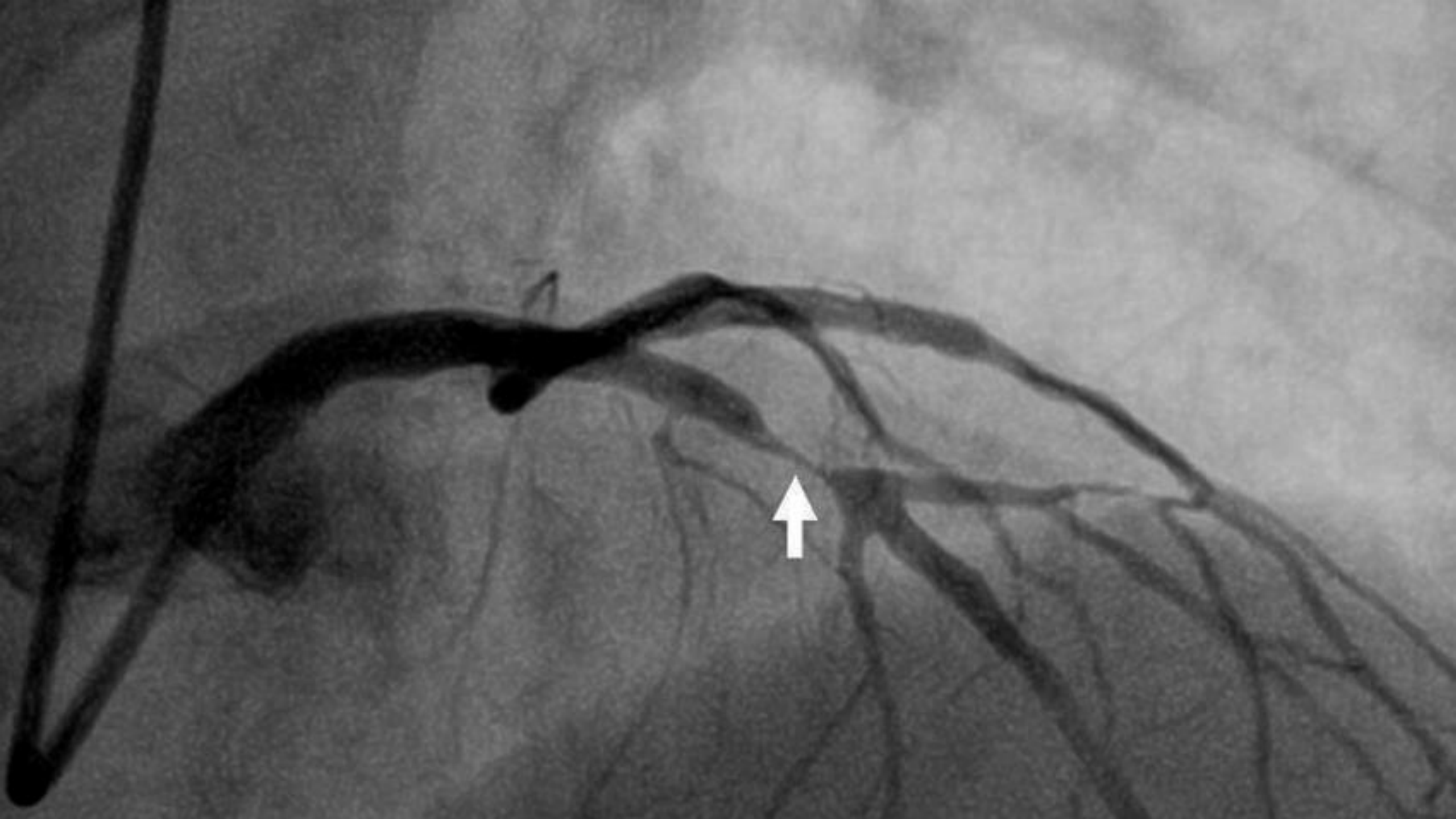
EF 55%, diastolická dysfunkce

Hypertenze korigovaná

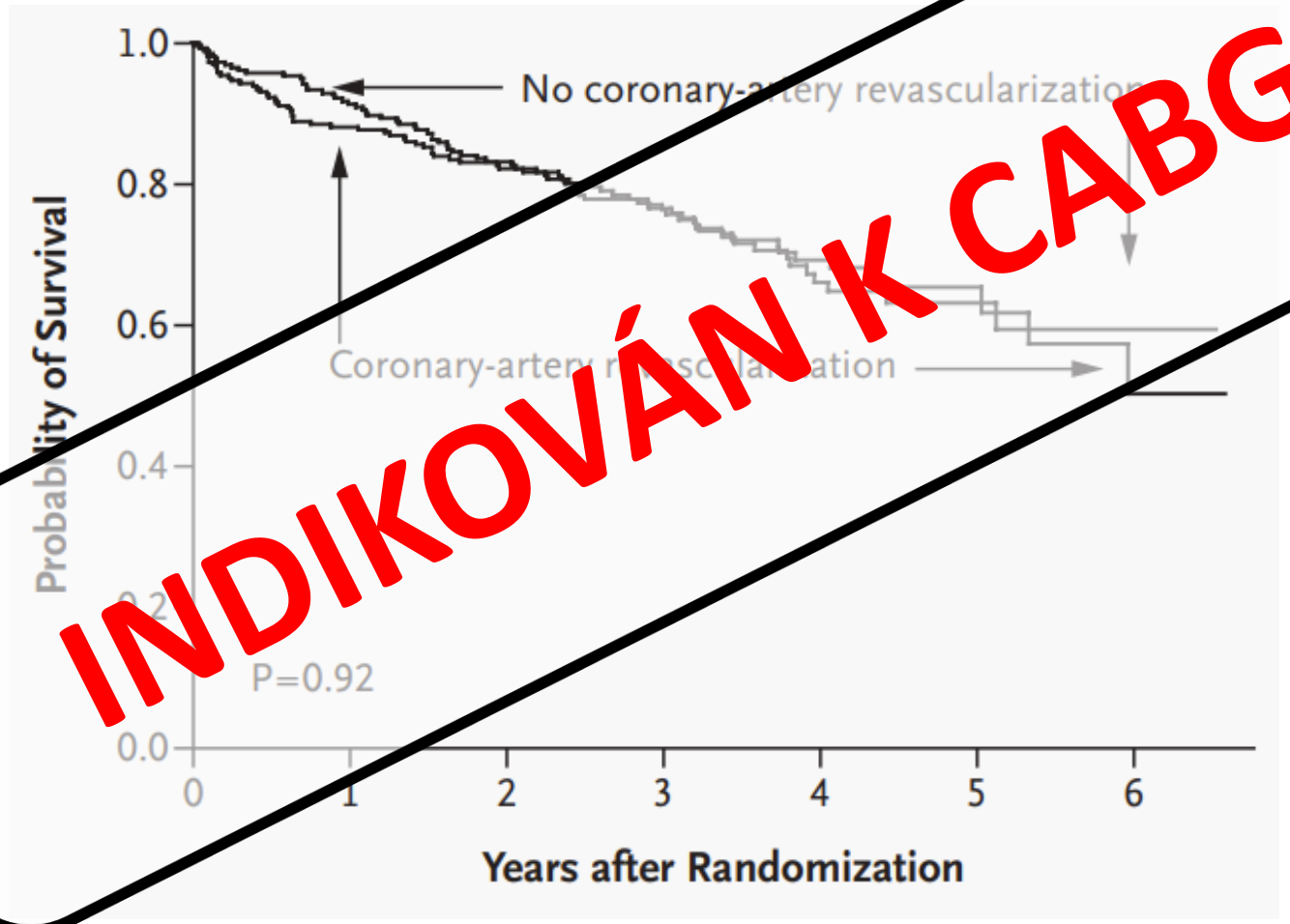
DM na dietě

Exkuřák

Hypercholesterolémie

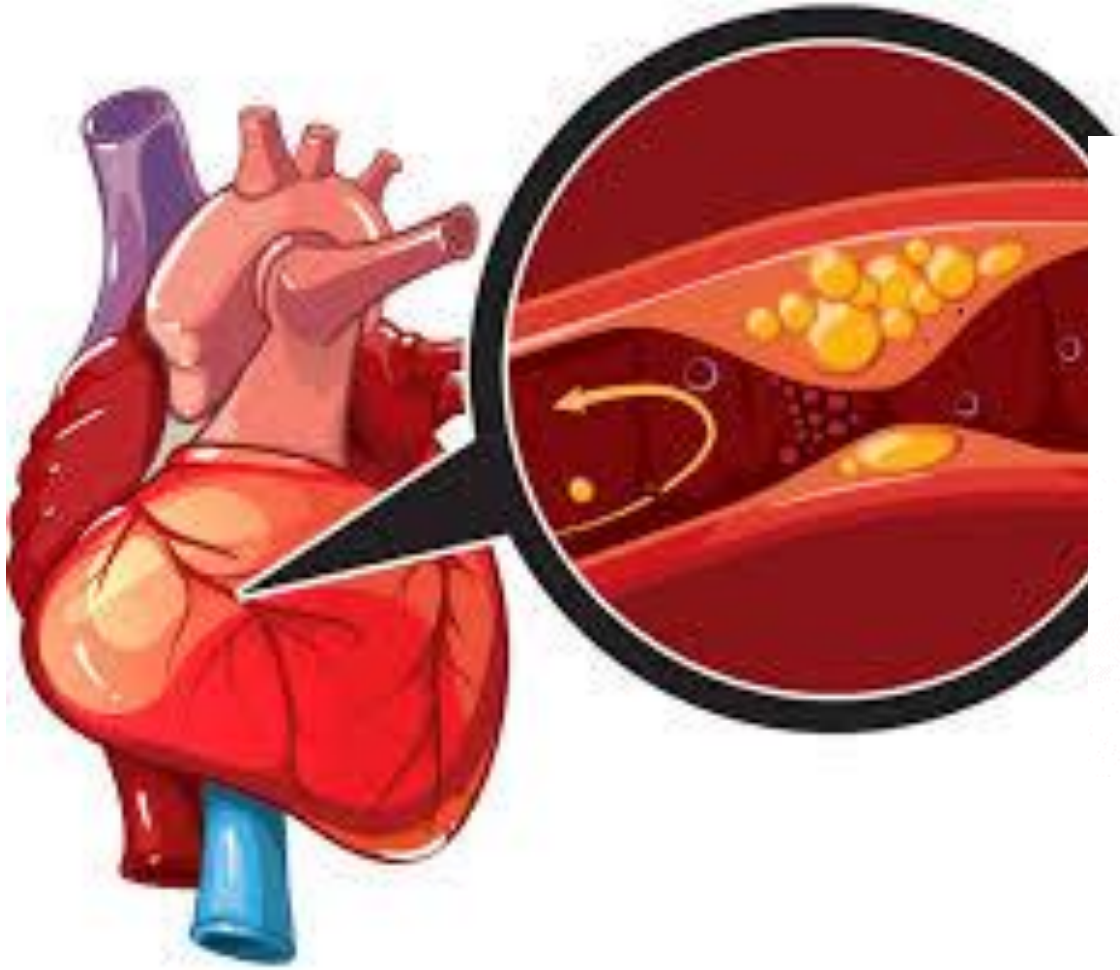


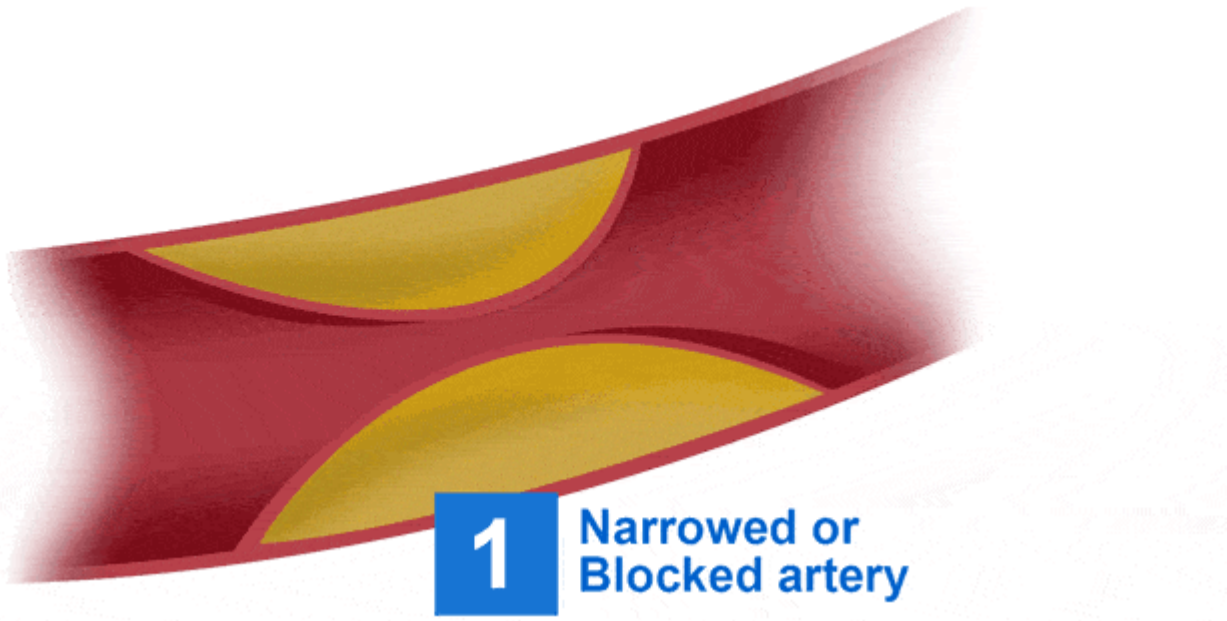
Coronary-Artery Revascularization before Elective Major Vascular Surgery



INDIKOVÁN K CABG

Co nás učili ve škole…





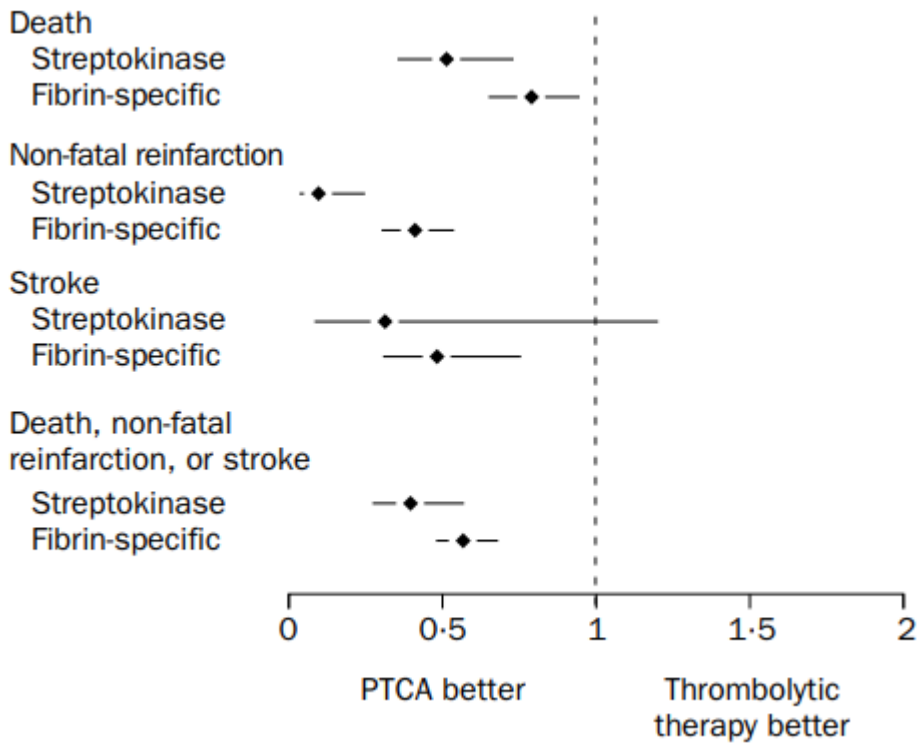
Co nás učili o revaskularizaci…

- Zachraňuje a prodlužuje životy
- Prevence infarktu myokardu a dalších srdečních příhod
- Zlepšení funkce myokardu
- Odstranění anginosních bolestí

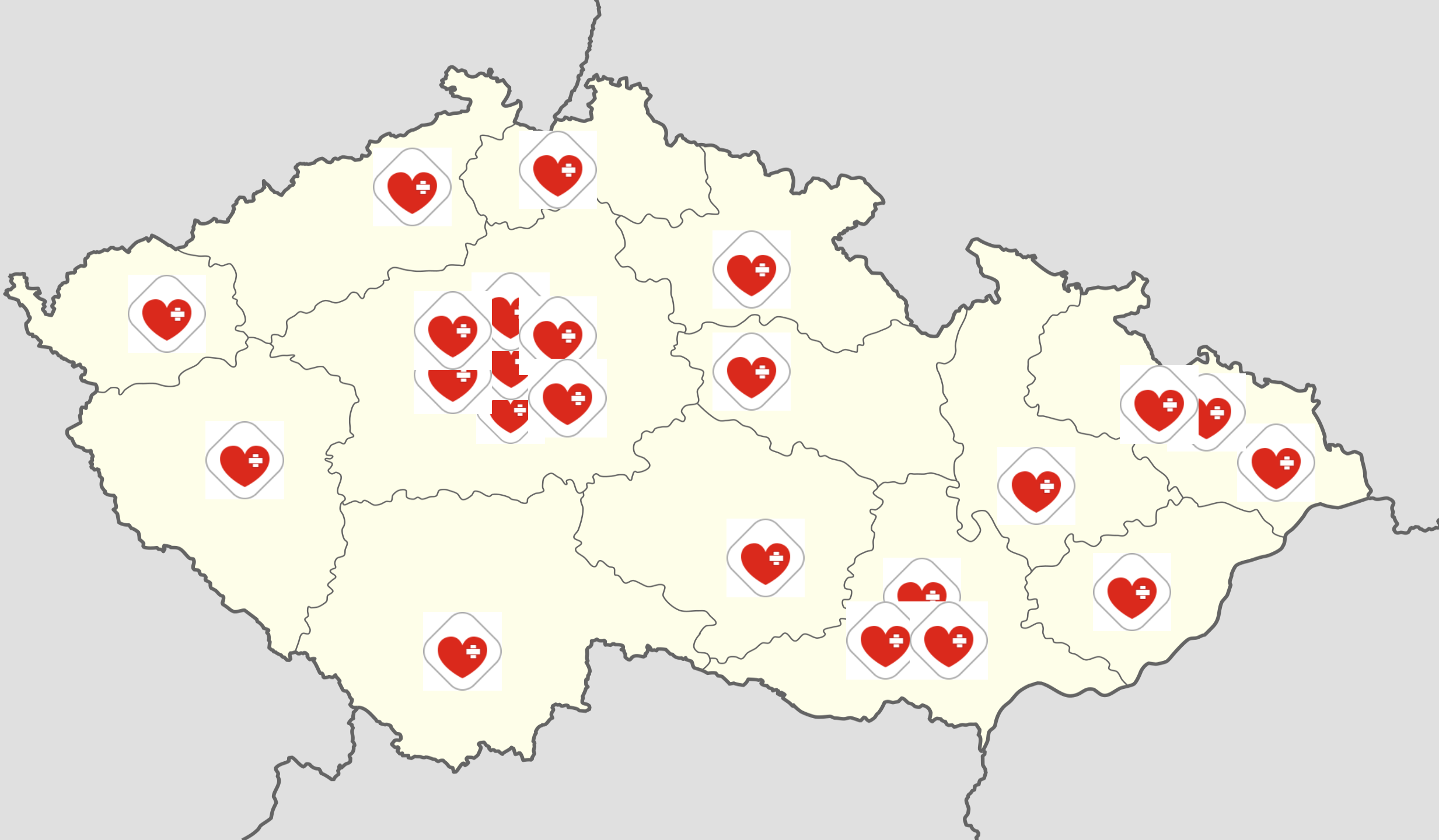
Articles

Primary angioplasty versus intravenous thrombolytic therapy for acute myocardial infarction: a quantitative review of 23 randomised trials

Ellen C Keeley, Judith A Boura, Cindy L Grines




STENT
Heal a Heart
SAVE A
LIFE



KATETRIZAČNÍ PRACOVIŠTĚ V ČR

Město	Nemocnice	Pracoviště
Brno	Fakultní nemocnice Brno	
Brno	Fakultní nemocnice u sv. Anny	
Brno	Centrum kardiovaskulární a transplantační chirurgie Brno	
České Budějovice	Nemocnice České Budějovice, a. s.	
Hradec Králové	Fakultní nemocnice Hradec Králové	
Jihlava	Nemocnice Jihlava	
Karlovy Vary	Karlovarská krajská nemocnice, a. s.	
Liberec	Krajská nemocnice Liberec, a. s.	
Olomouc	Fakultní nemocnice Olomouc	
Ostrava	Fakultní nemocnice Ostrava	
Ostrava	Městská nemocnice Ostrava	
Pardubice	Kardiologické centrum AGEL, a. s.	
Plzeň	Fakultní nemocnice Plzeň	
Praha	Nemocnice Na Homolce	Oddělení intervenční kardiologie
Praha	Institut klinické a experimentální mediciny	
Praha	Fakultní nemocnice Královské Vinohrady	
Praha	Fakultní nemocnice Motol	
Praha	Kardiologie na Bulovce, s. r. o.	
Praha	Ústřední vojenská nemocnice	
Praha	Všeobecná fakultní nemocnice	
Třinec	Nemocnice Podlesí	
Ústí nad Labem	Masarykova nemocnice v Ústí nad Labem, o. z.	
Zlín	Krajská nemocnice T. Bati, a. s.	

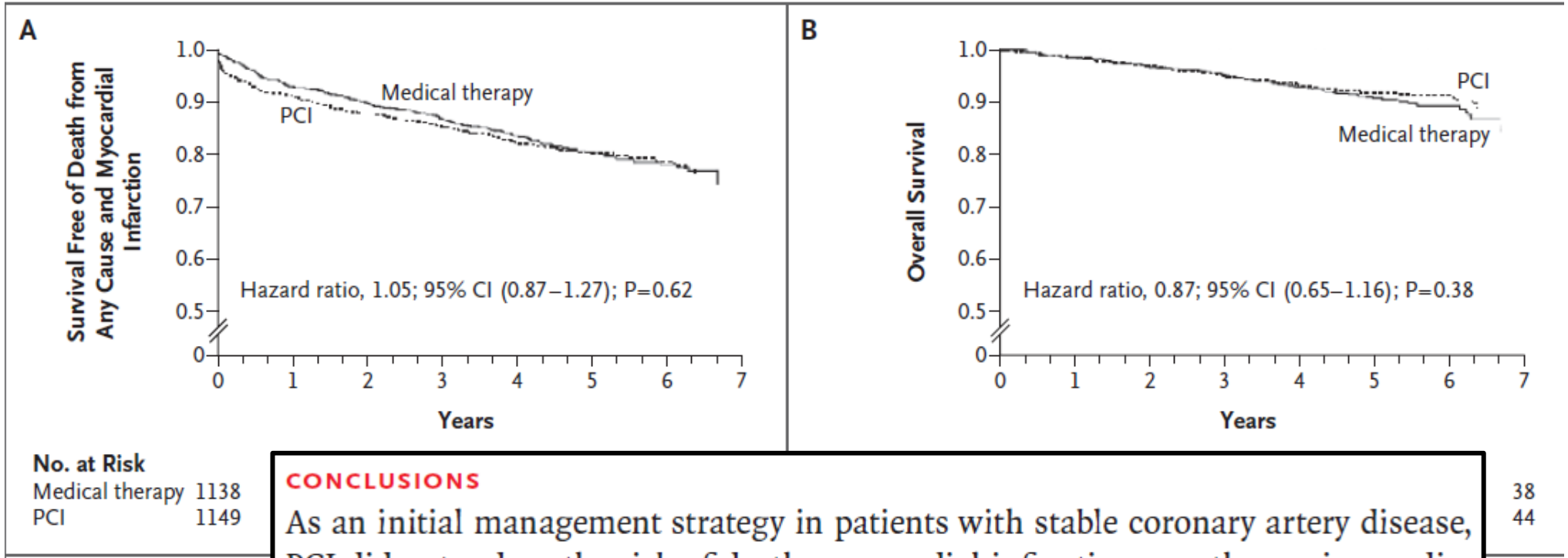
Katetrizační pracoviště v ČR | Česká kardiologická společnost (kardio-cz.cz)

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 APRIL 12, 2007 VOL. 356 NO. 15

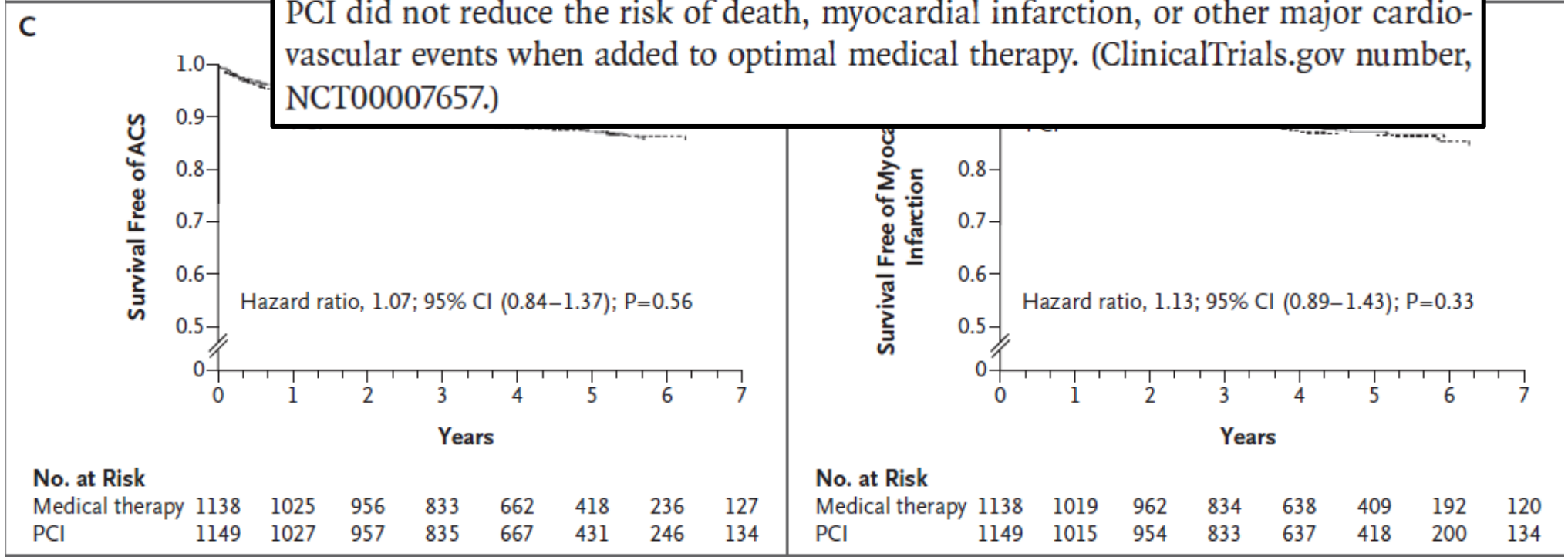
Optimal Medical Therapy with or without PCI for Stable Coronary Disease

William E. Boden, M.D., Robert A. O'Rourke, M.D., Koon K. Teo, M.B., B.Ch., Ph.D., Pamela M. Hartigan, Ph.D., David J. Maron, M.D., William J. Kostuk, M.D., Merril Knudtson, M.D., Marcin Dada, M.D., Paul Casperson, Ph.D., Crystal L. Harris, Pharm.D., Bernard R. Chaitman, M.D., Leslee Shaw, Ph.D., Gilbert Gosselin, M.D., Shah Nawaz, M.D., Lawrence M. Title, M.D., Gerald Gau, M.D., Alvin S. Blaustein, M.D., David C. Booth, M.D., Eric R. Bates, M.D., John A. Spertus, M.D., M.P.H., Daniel S. Berman, M.D., G.B. John Mancini, M.D., and William S. Weintraub, M.D., for the COURAGE Trial Research Group*



CONCLUSIONS

As an initial management strategy in patients with stable coronary artery disease, PCI did not reduce the risk of death, myocardial infarction, or other major cardiovascular events when added to optimal medical therapy. (ClinicalTrials.gov number, NCT00007657.)



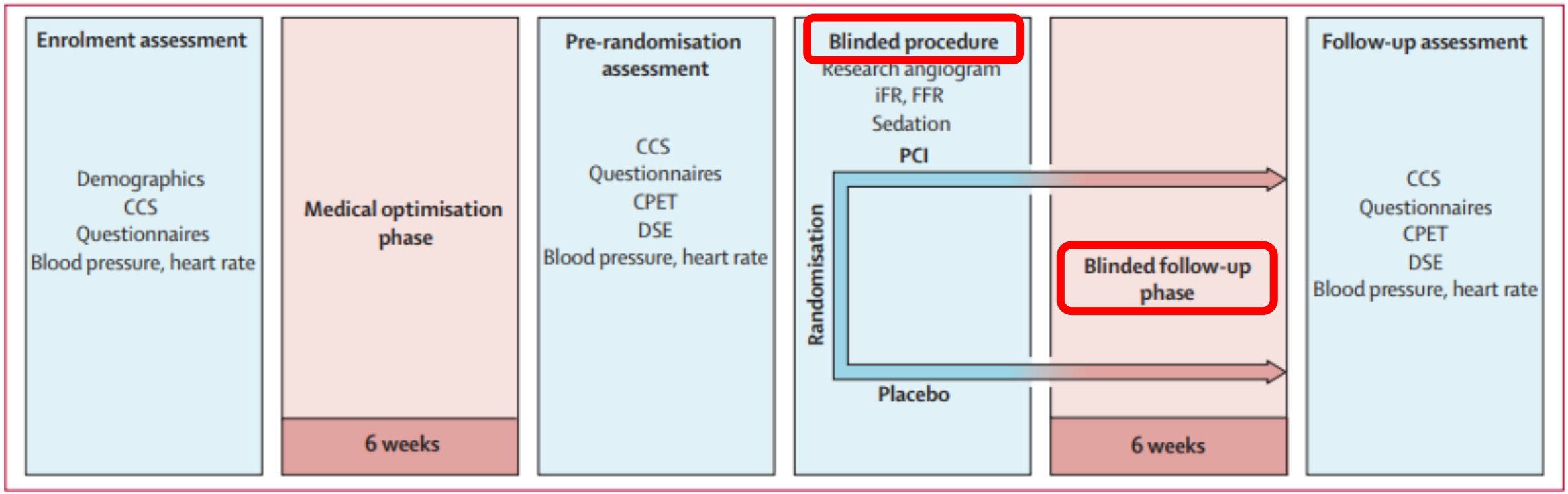
Co nás učili o revaskularizaci…

u chronické ICHS

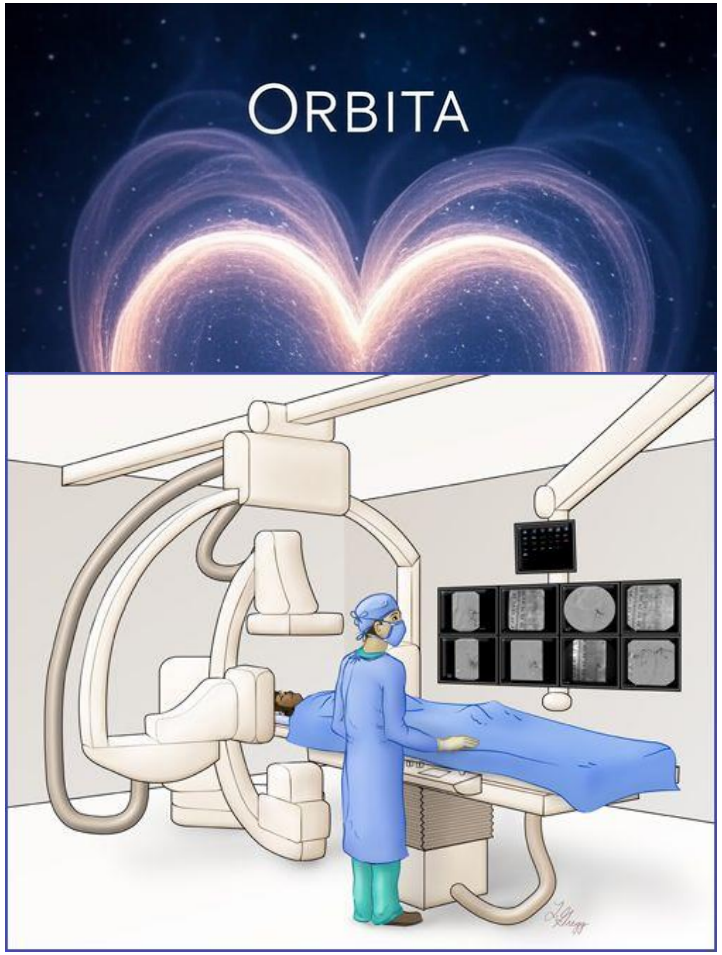
- ~~Zahraňuje a prodlužuje životy~~
- ~~Prevence infarktu myokardu a dalších srdečních příhod~~
- Odstranění anginosních bolestí

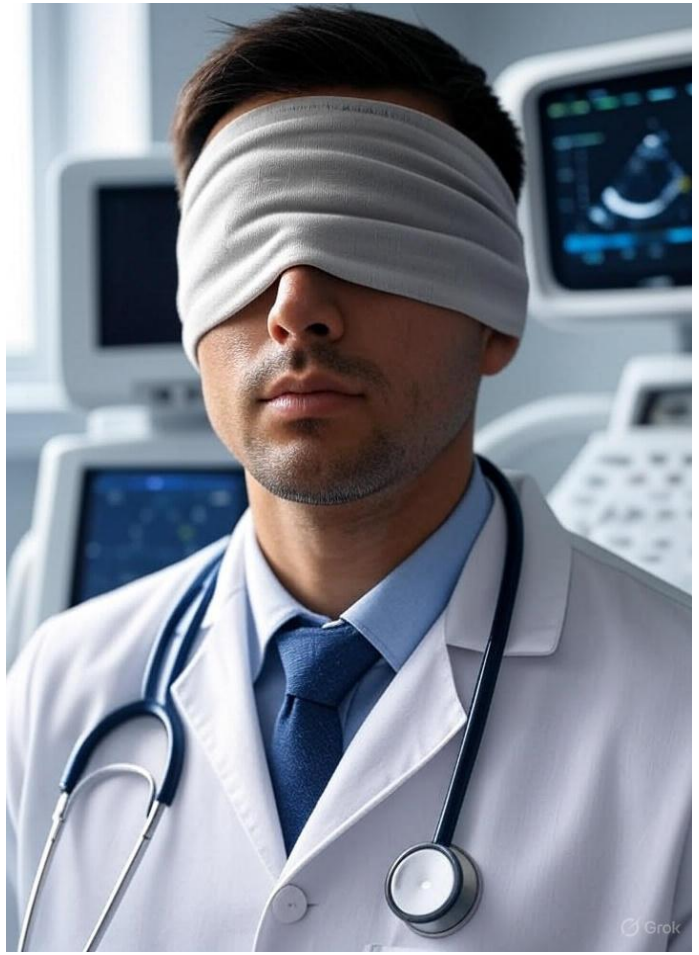
Percutaneous coronary intervention in stable angina (ORBITA): a double-blind, randomised controlled trial

*Rasha Al-Lamee, David Thompson, Hakim-Moulay Dehbi, Sayan Sen, Kare Tang, John Davies, Thomas Keeble, Michael Mielewczik, Raffi Kaprielian, Iqbal S Malik, Sukhjinder S Nijjer, Ricardo Petraco, Christopher Cook, Yousif Ahmad, James Howard, Christopher Baker, Andrew Sharp, Robert Gerber, Suneel Talwar, Ravi Assomull, Jamil Mayet, Roland Wensel, David Collier, Matthew Shun-Shin, Simon A Thom, Justin E Davies, Darrel P Francis, on behalf of the ORBITA investigators**



Percutaneous coronary intervention in stable angina (ORBITA): a double-blind, randomised controlled trial

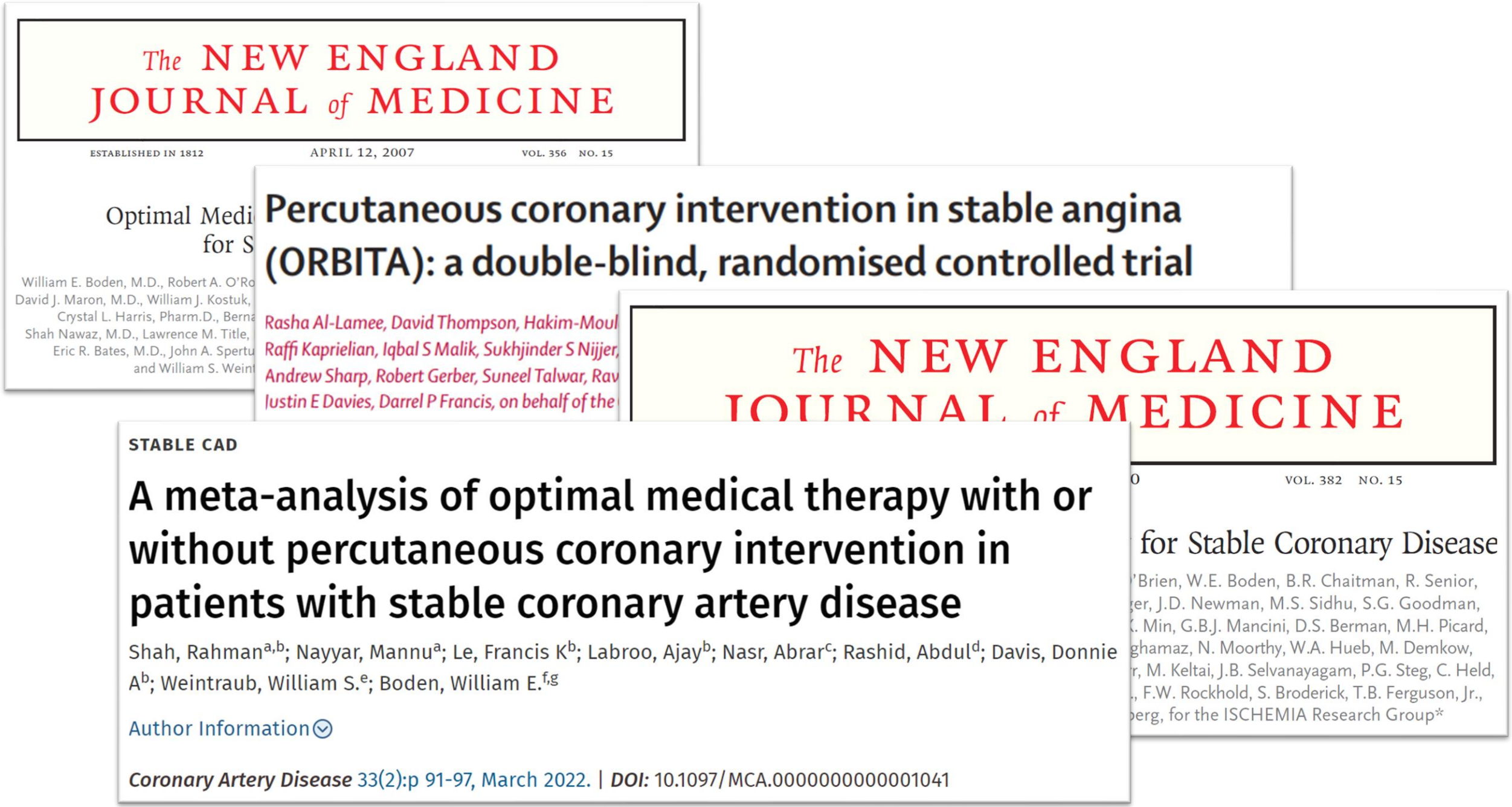




Percutaneou e angina

(ORBITA): a olled trial

391 January 6, 2018


The NEW ENGLAND JOURNAL of MEDICINE
ESTABLISHED IN 1812 APRIL 12, 2007 VOL. 356 NO. 15
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Crystal L. Harris, Pharm.D., Berna
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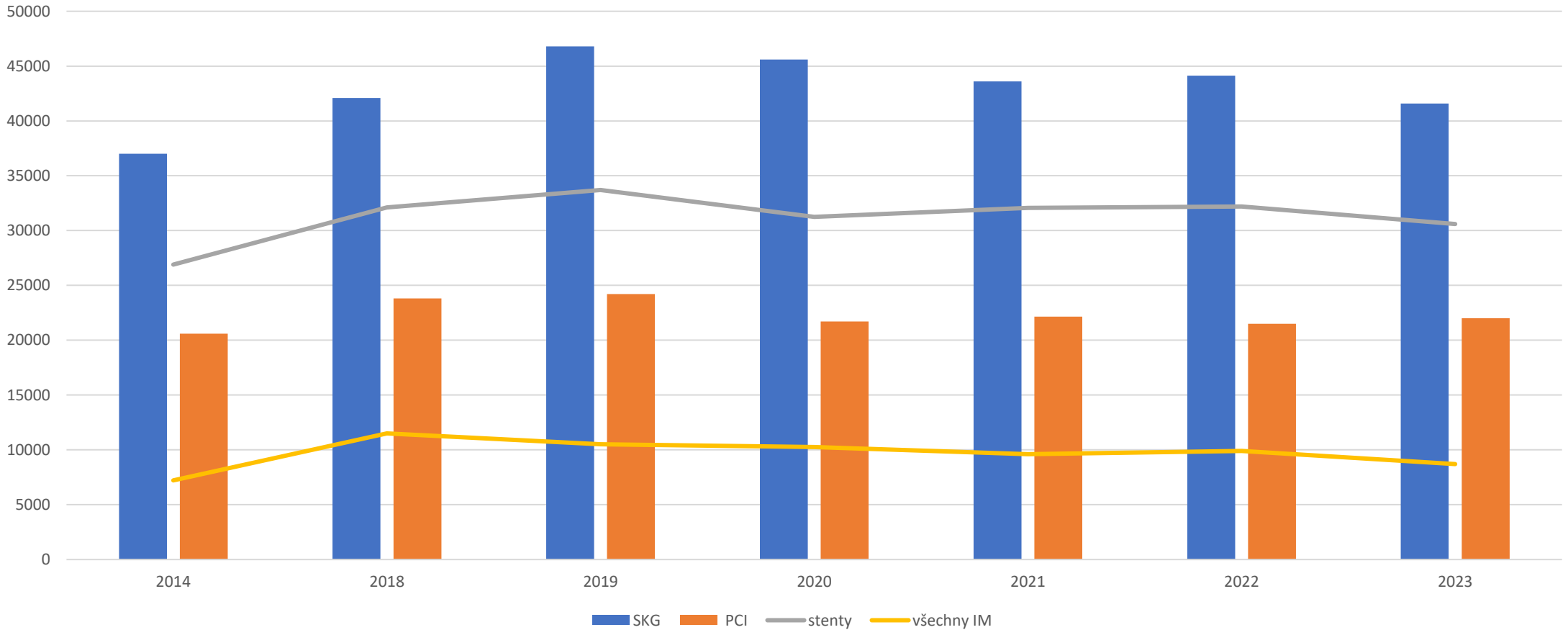
The NEW ENGLAND JOURNAL of MEDICINE
0 VOL. 382 NO. 15
for Stable Coronary Disease
'Brien, W.E. Boden, B.R. Chaitman, R. Senior,
ger, J.D. Newman, M.S. Sidhu, S.G. Goodman,
. Min, G.B.J. Mancini, D.S. Berman, M.H. Picard,
ghamaz, N. Moorthy, W.A. Hueb, M. Demkow,
r, M. Keltai, J.B. Selvanayagam, P.G. Steg, C. Held,
, F.W. Rockhold, S. Broderick, T.B. Ferguson, Jr.,
berg, for the ISCHEMIA Research Group*
STABLE CAD
A meta-analysis of optimal medical therapy with or without percutaneous coronary intervention in patients with stable coronary artery disease
Shah, Rahman[a,b]; Nayyar, Mannu[a]; Le, Francis K[b]; Labroo, Ajay[b]; Nasr, Abrar[c]; Rashid, Abdul[d]; Davis, Donnie A[b]; Weintraub, William S.[e]; Boden, William E.[f,g]
Author Information
Coronary Artery Disease 33(2):p 91-97, March 2022. | DOI: 10.1097/MCA.0000000000001041

Reakce intervenčních kardiologů

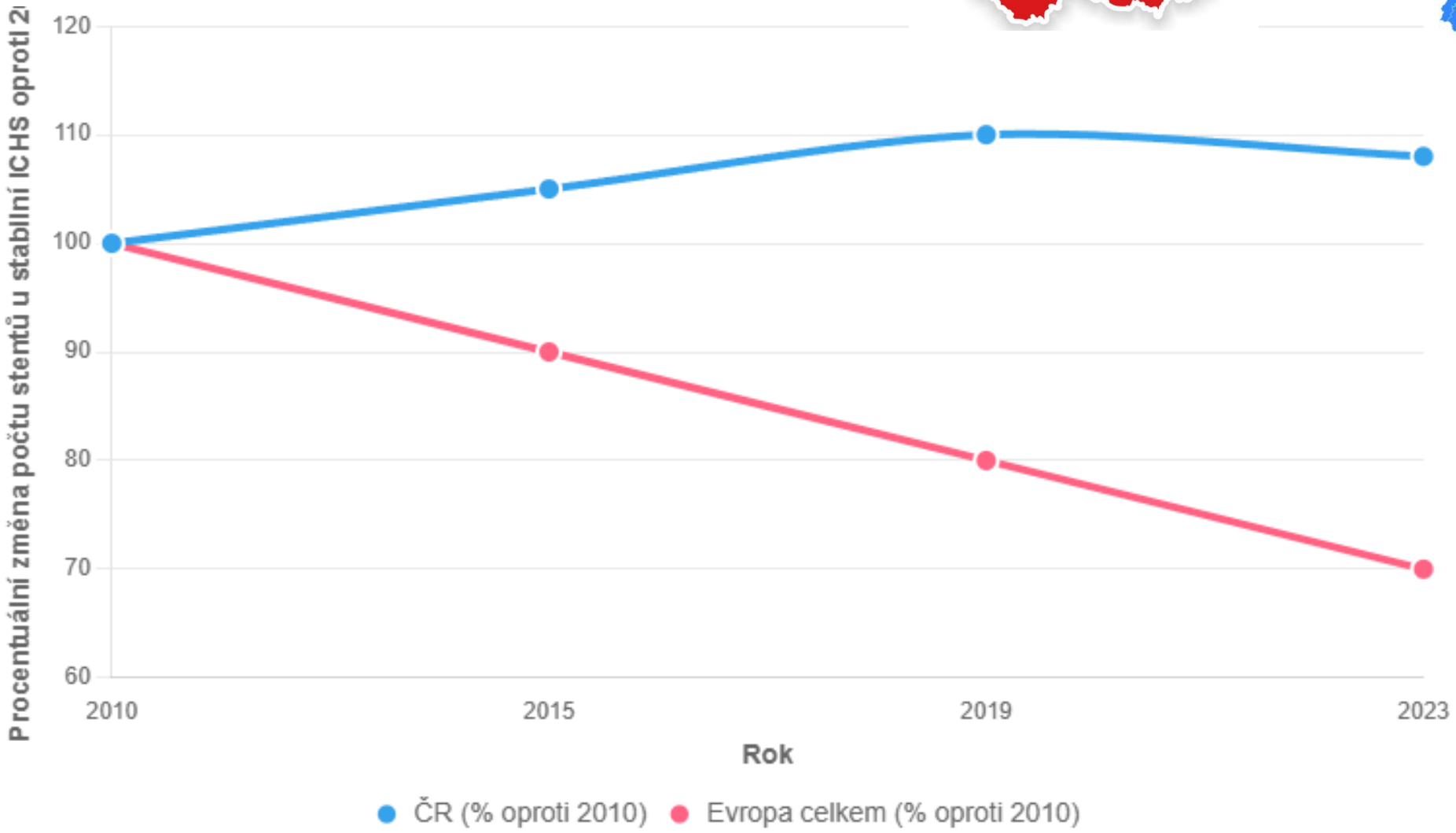
Koronární intervence 2014-2023



Prof. Kovárník - Neoficiální Špindlerův seznam - Harmony

Stenty u stabilní ICHS

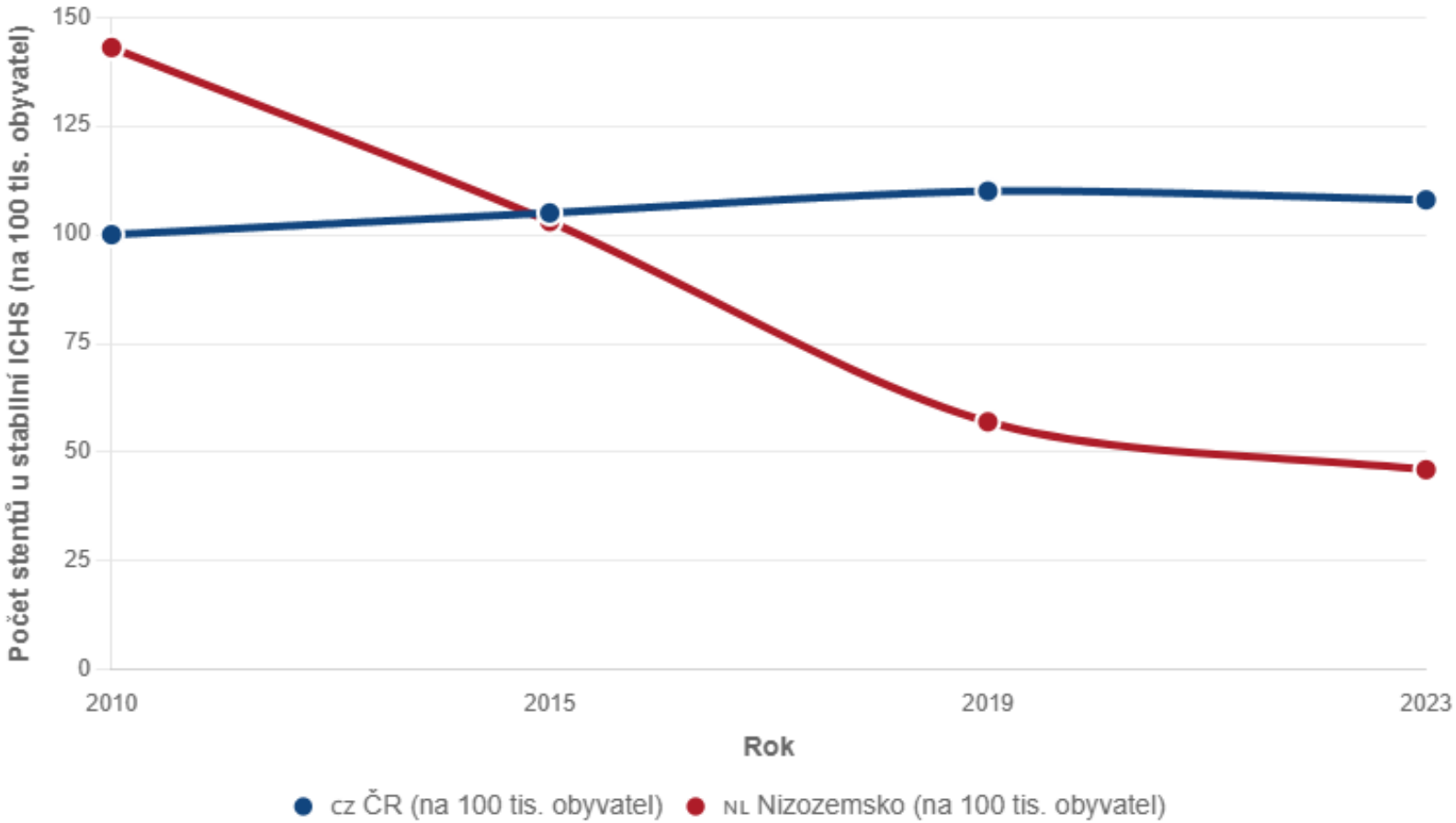
vs



pubmed.ncbi.nlm.nih.gov eatlas.escardio.org escardio.org academic.oup.com eurointervention.pcronline.com

Stenty u stabilní ICHS

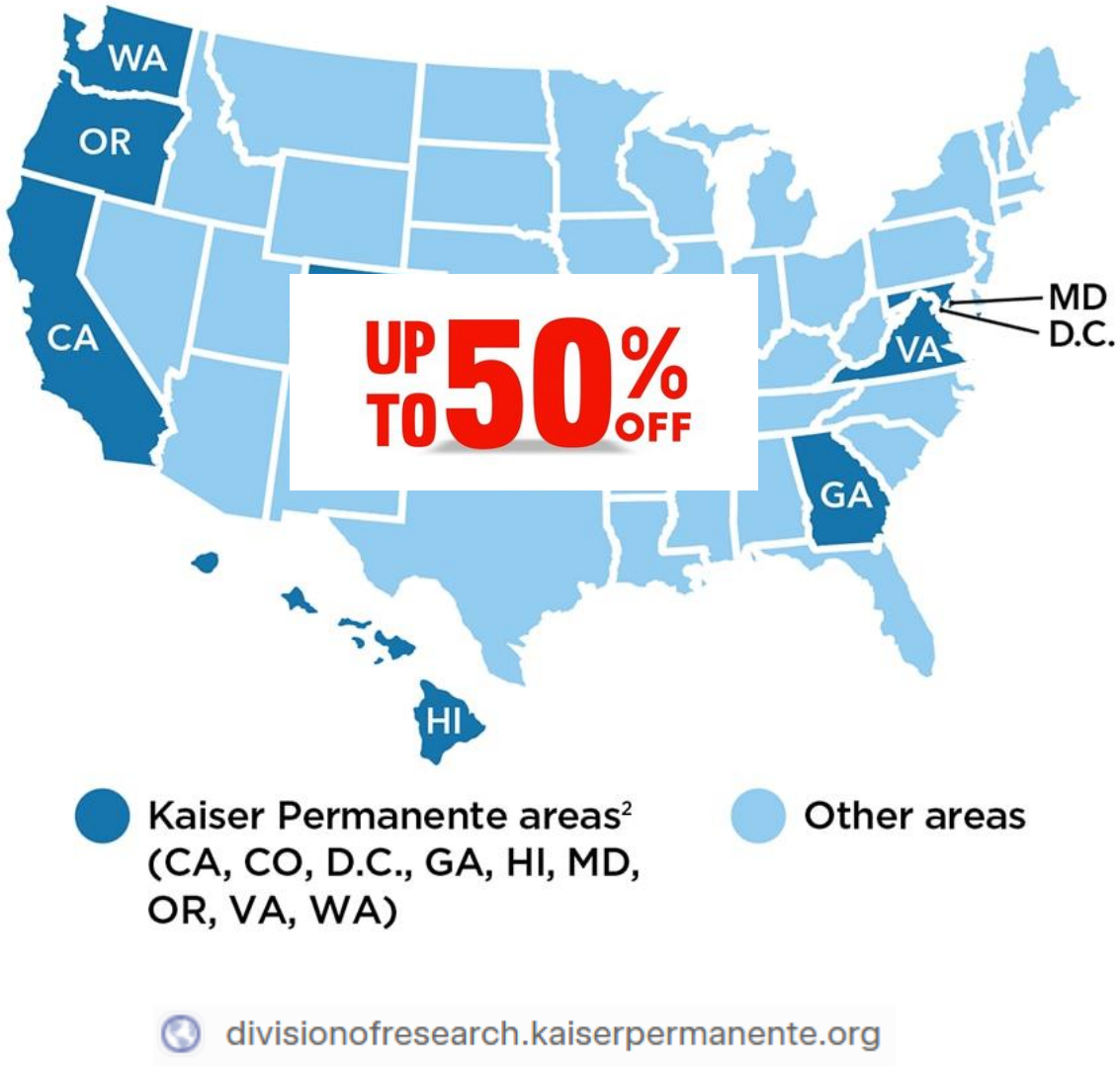
vs



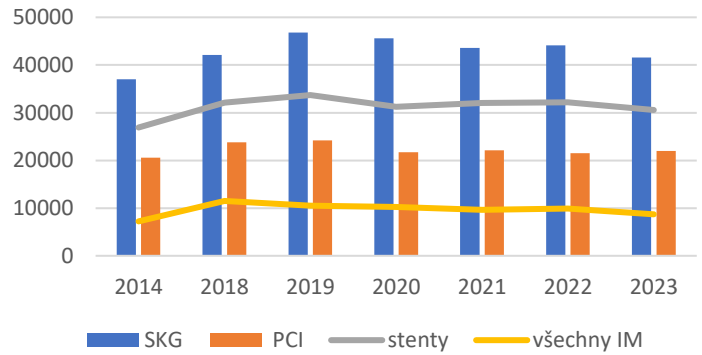
pure.eur.nl

eurointervention.pcronline.com

Jde to jinak ?


WA
OR
CA
HI
VA
MD
D.C.
GA
UP TO 50% OFF
Kaiser Permanente areas²
(CA, CO, D.C., GA, HI, MD,
OR, VA, WA)
Other areas
divisionofresearch.kaiserpermanente.org


CHANGE


50000
40000
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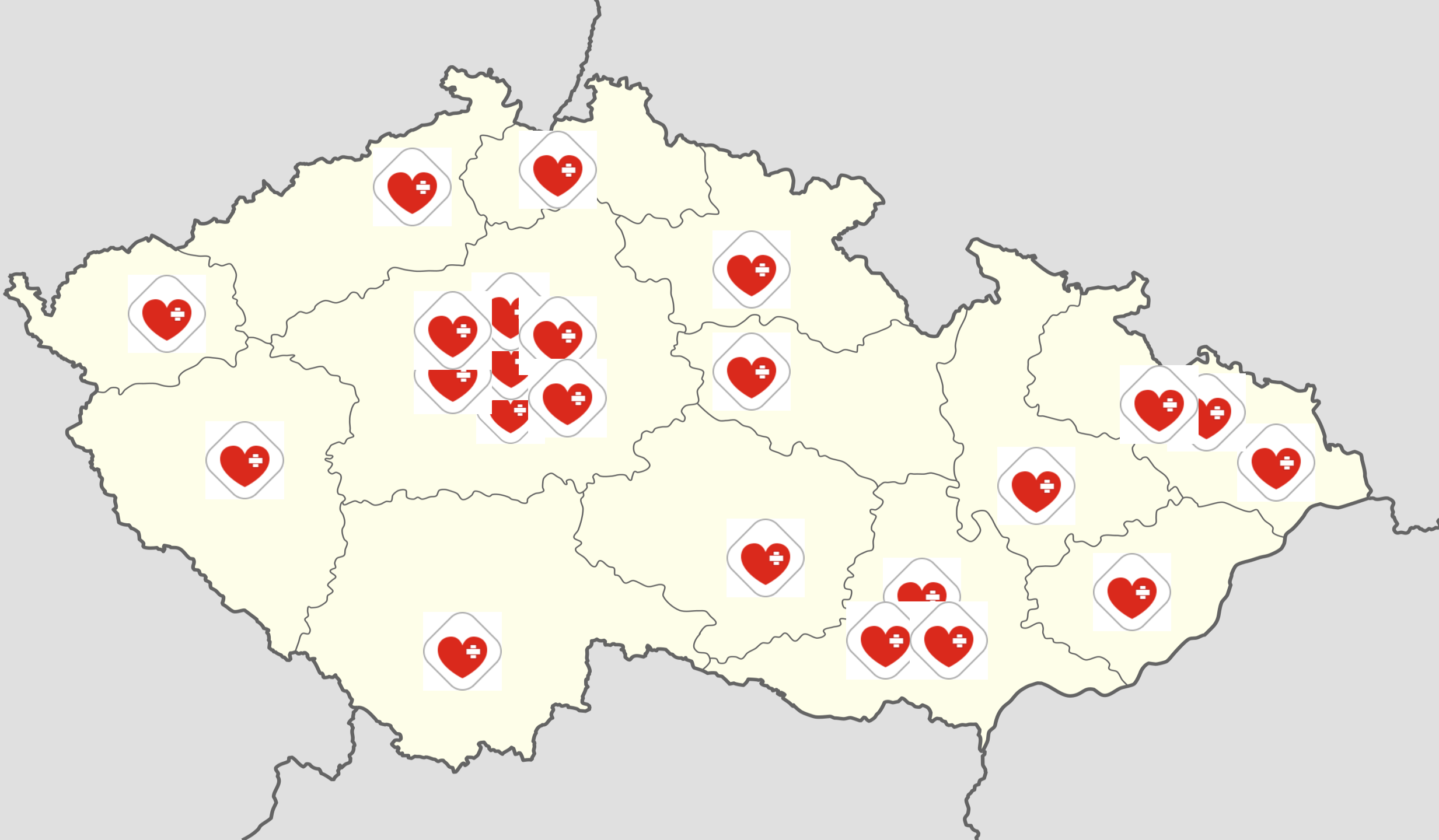
2014
2018
2019
2020
2021
2022
2023
SKG
PCI
stenty
všechny IM



PROČ ?

- Když vidím významnou stenózu, tak ji tam přeci nenechám
- Moji pacienti nemají rádi tolik prášků
- Když to neudělám já, udělá to konkurence
- Anesteziolog ho jinak neuspí na banální výkon
- Ve studiích jsou méně nemocní pacienti

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*

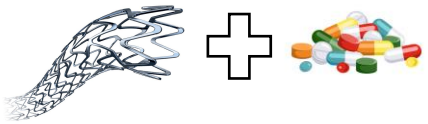
United Kingdom

REVIVED

REVascularisation for Ischaemic VEntricular Dysfunction

(REVIVED-BCIS2)

REVIVED



347

353

Perera D et al, JACC HF 2018

LV Ejection Fraction ≤ 35%
Extensive Coronary Disease (BCIS-JS ≥6)

↓

Viable Myocardium
on CMR, DSE, SPECT or PET
PCI feasible to lesions subtending ≥4 dysfunctional but viable segments

↓

RANDOMISE

↓

PCI

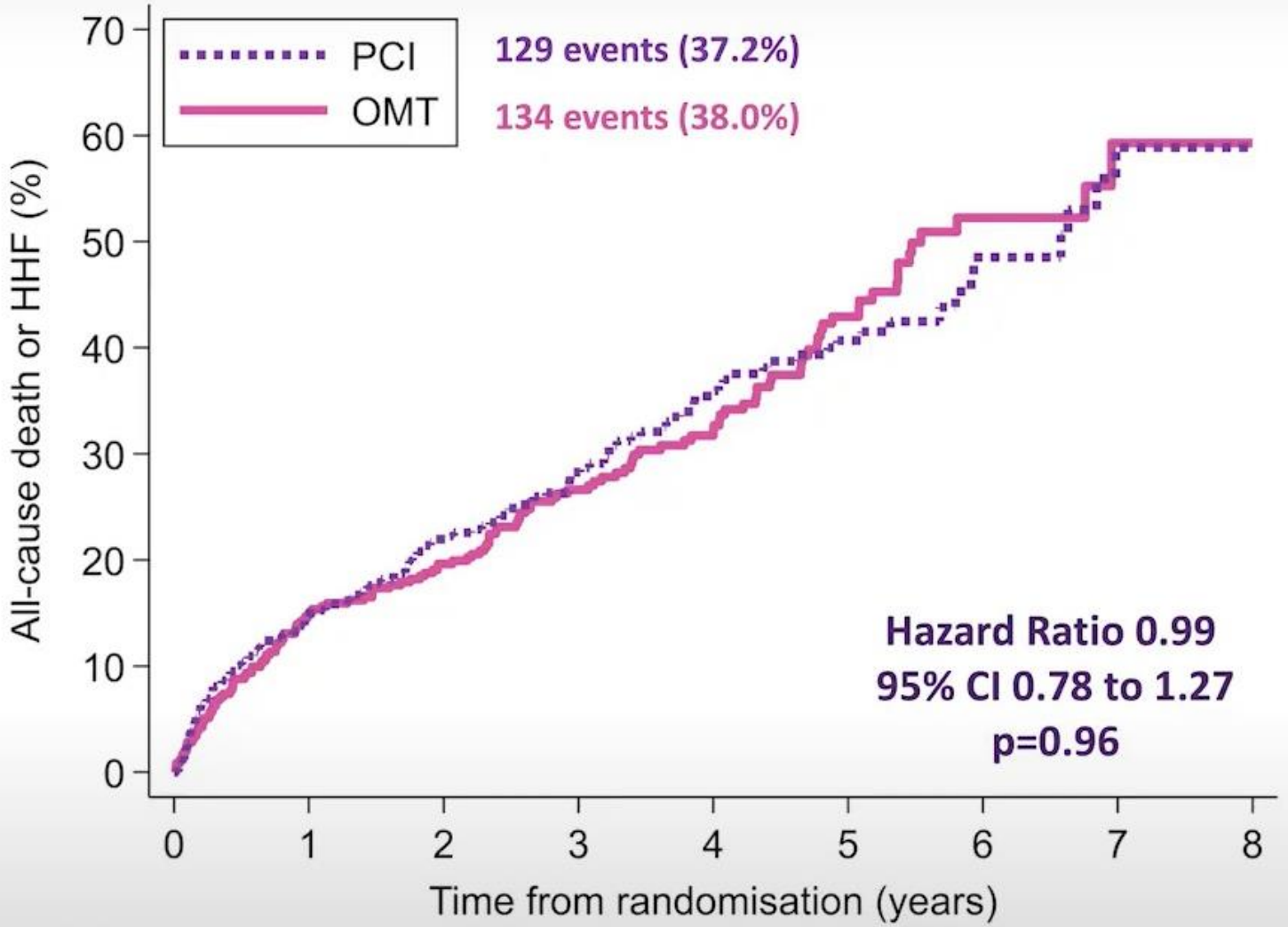
Optimal Medical Therapy

↓

Echocardiography at 6m, 12m
Clinical, ICD, biochemical follow up at 6m, 12m, 24m+

REVIVED

Primary Outcome



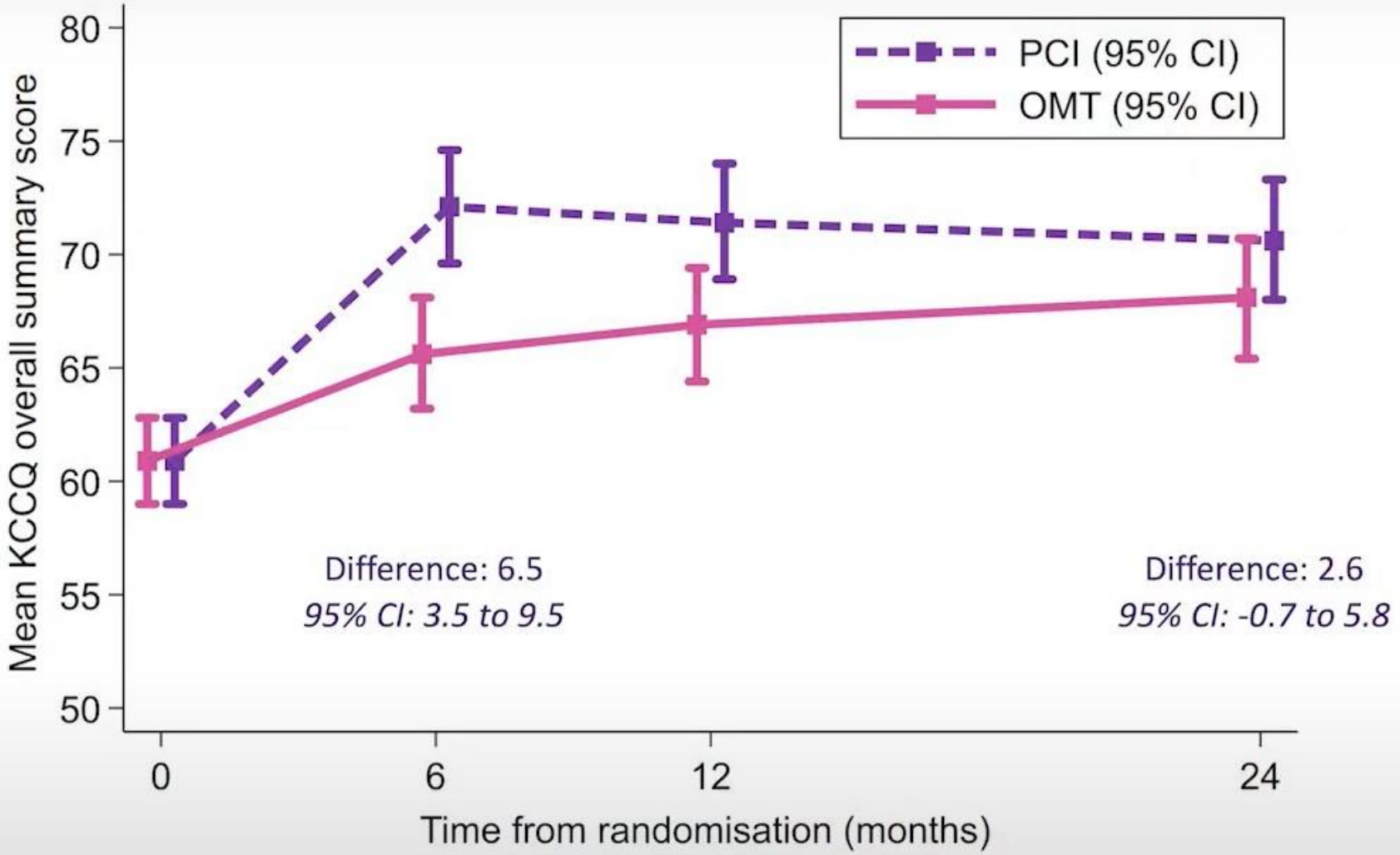
Number at risk

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

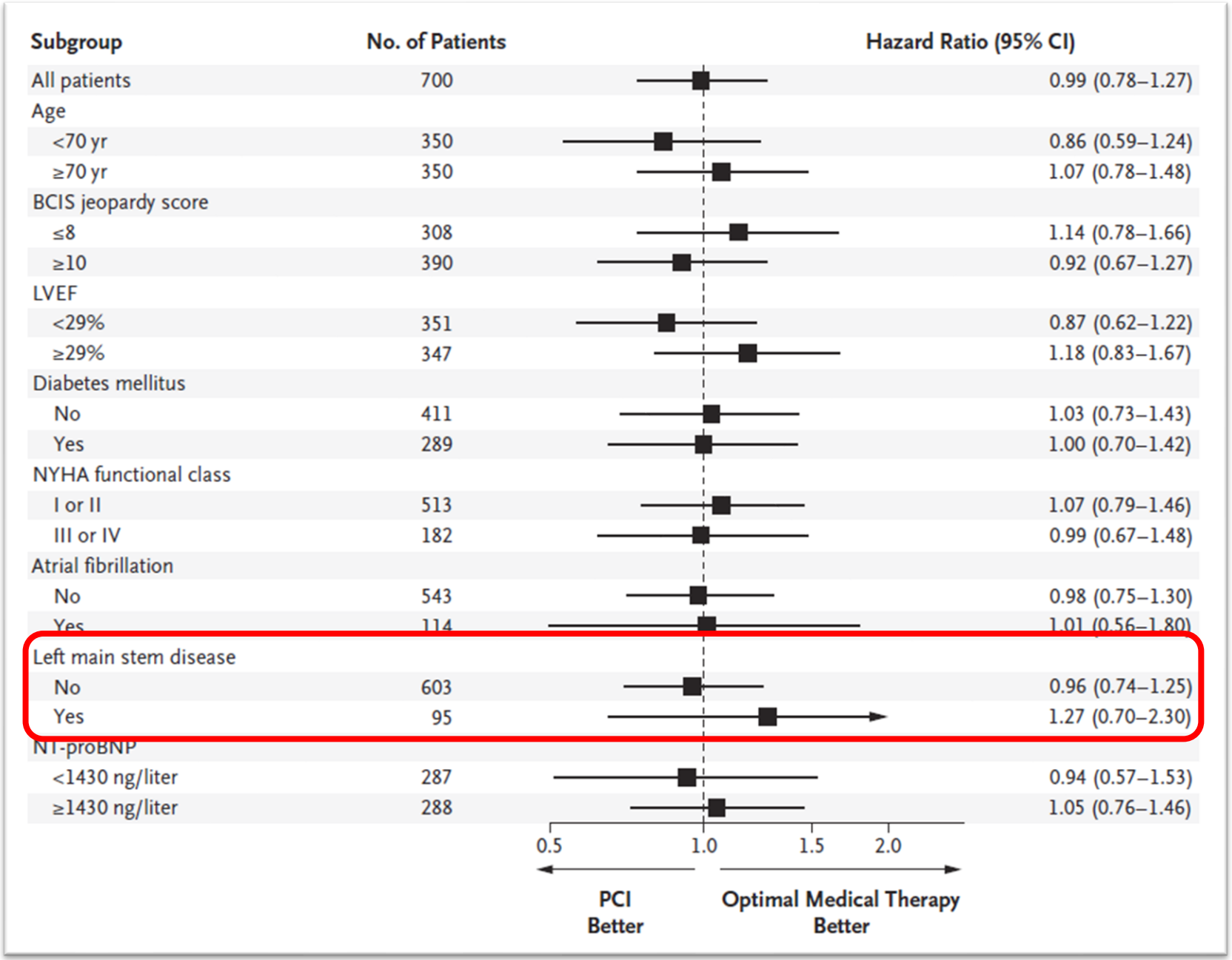
REVIVED

Major secondary outcome: KCCQ Score

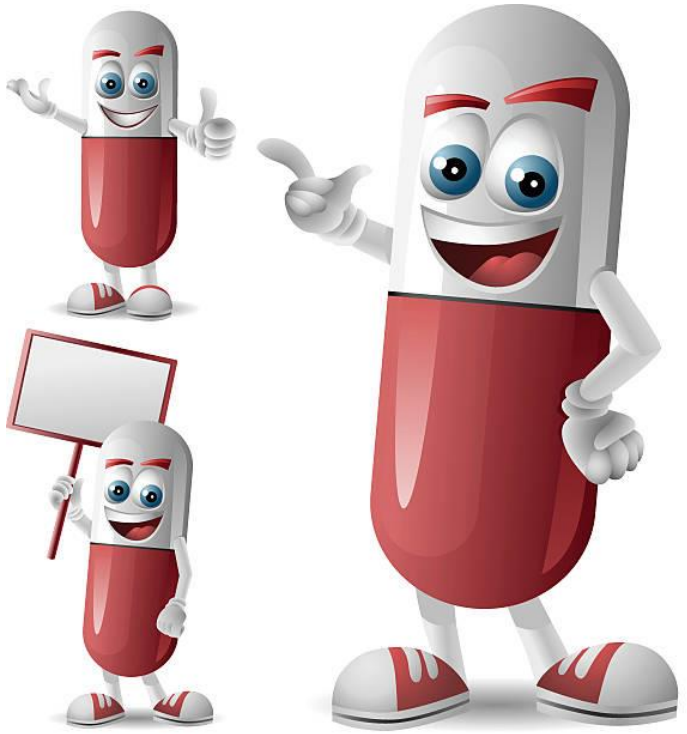
score ranges from
0 (very poor health) to
100 (excellent health)

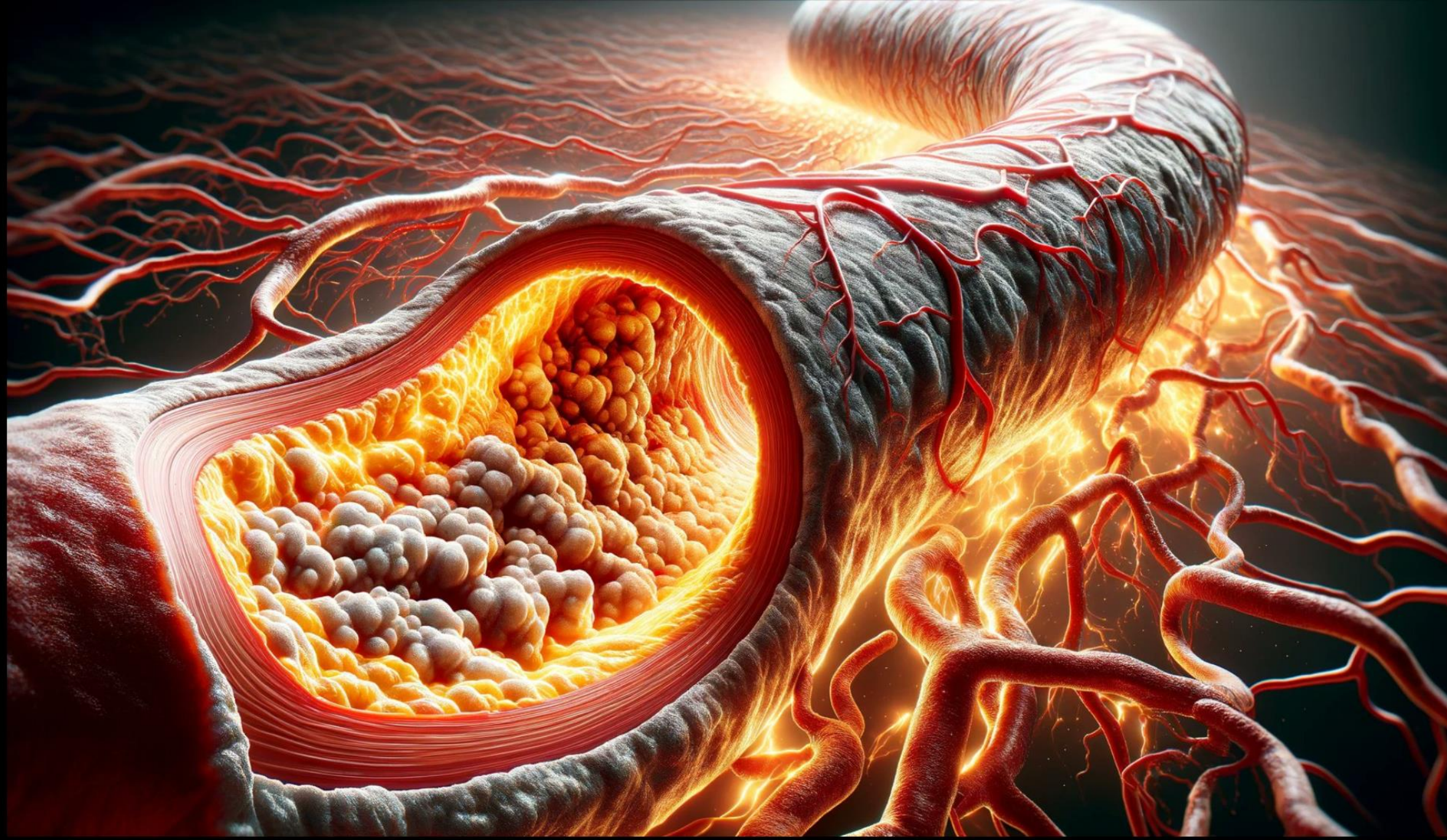


Number followed up				
PCI	319	270	268	228
OMT	318	285	268	228

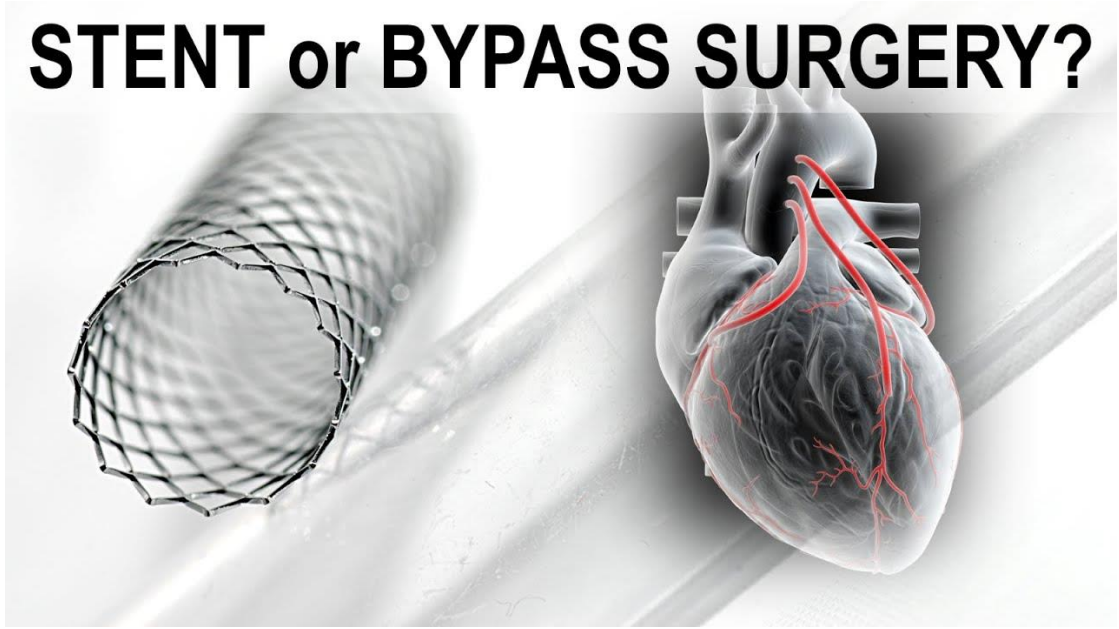

Subgroup
No. of Patients
Hazard Ratio (95% CI)
All patients 700 0.99 (0.78–1.27)
Age
<70 yr 350 0.86 (0.59–1.24)
≥70 yr 350 1.07 (0.78–1.48)
BCIS jeopardy score
≤8 308 1.14 (0.78–1.66)
≥10 390 0.92 (0.67–1.27)
LVEF
<29% 351 0.87 (0.62–1.22)
≥29% 347 1.18 (0.83–1.67)
Diabetes mellitus
No 411 1.03 (0.73–1.43)
Yes 289 1.00 (0.70–1.42)
NYHA functional class
I or II 513 1.07 (0.79–1.46)
III or IV 182 0.99 (0.67–1.48)
Atrial fibrillation
No 543 0.98 (0.75–1.30)
Yes 114 1.01 (0.56–1.80)
Left main stem disease
No 603 0.96 (0.74–1.25)
Yes 95 1.27 (0.70–2.30)
NT-proBNP
<1430 ng/liter 287 0.94 (0.57–1.53)
≥1430 ng/liter 288 1.05 (0.76–1.46)
0.5
1.0
1.5
2.0
PCI Better
Optimal Medical Therapy Better

Stenty vs prášky

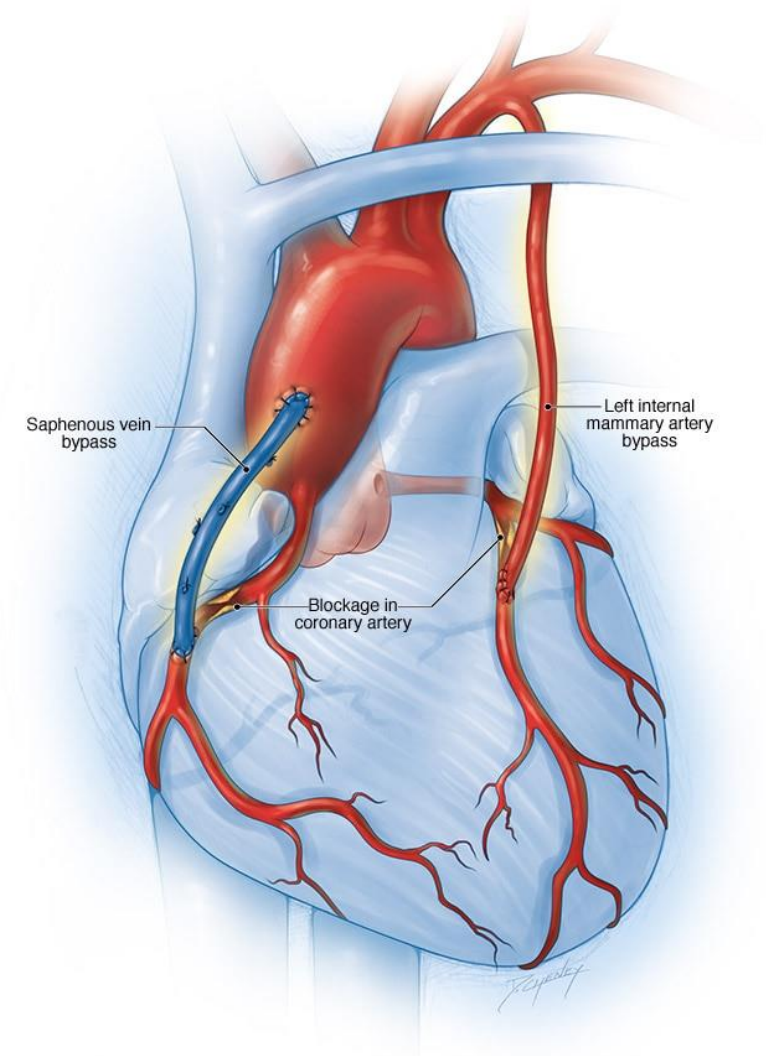




STENT or BYPASS SURGERY?



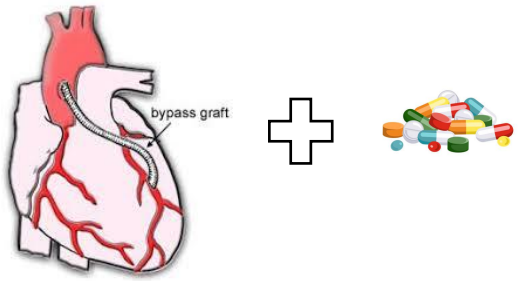
https://www.youtube.com/watch?v=RAFK4jr6JRs



https://www.mayoclinic.org/tests-procedures/coronary-bypass-surgery/about/pac-20384589

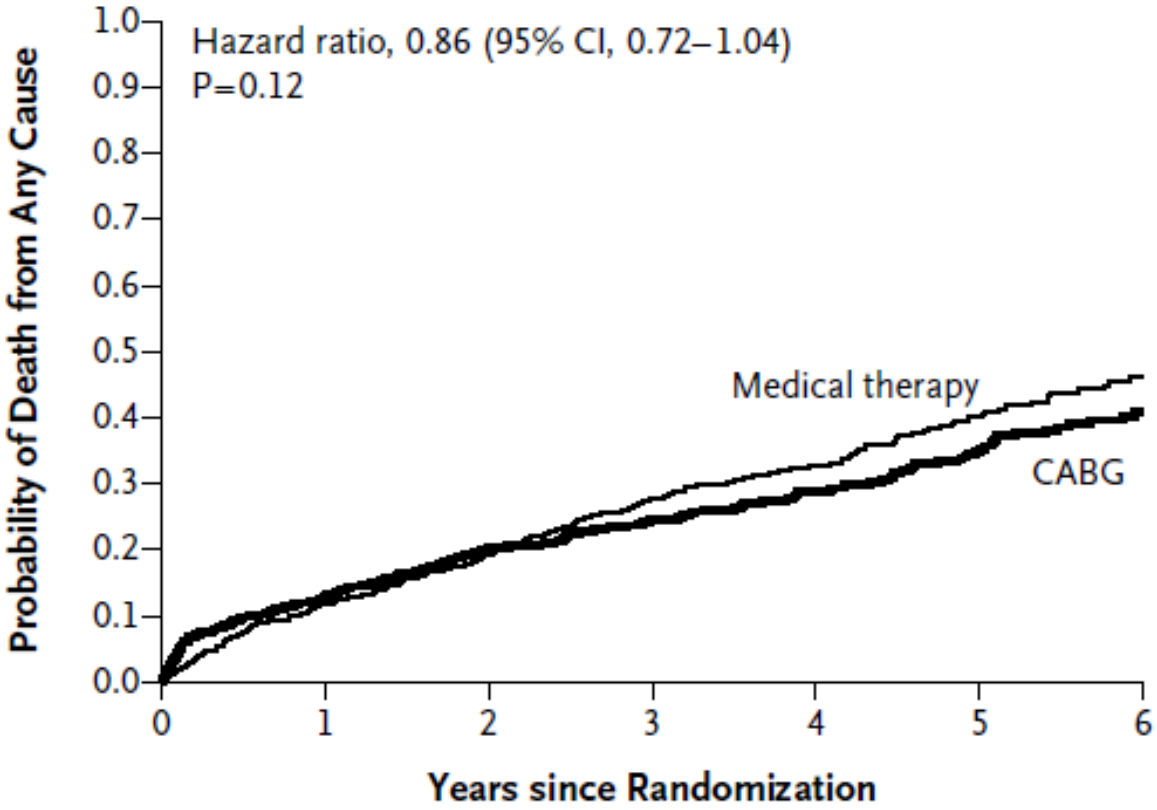
Stich trial

ICHS, EF ≤ 35%



610

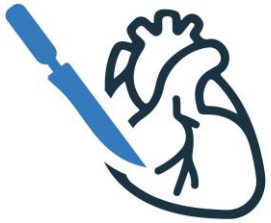
602

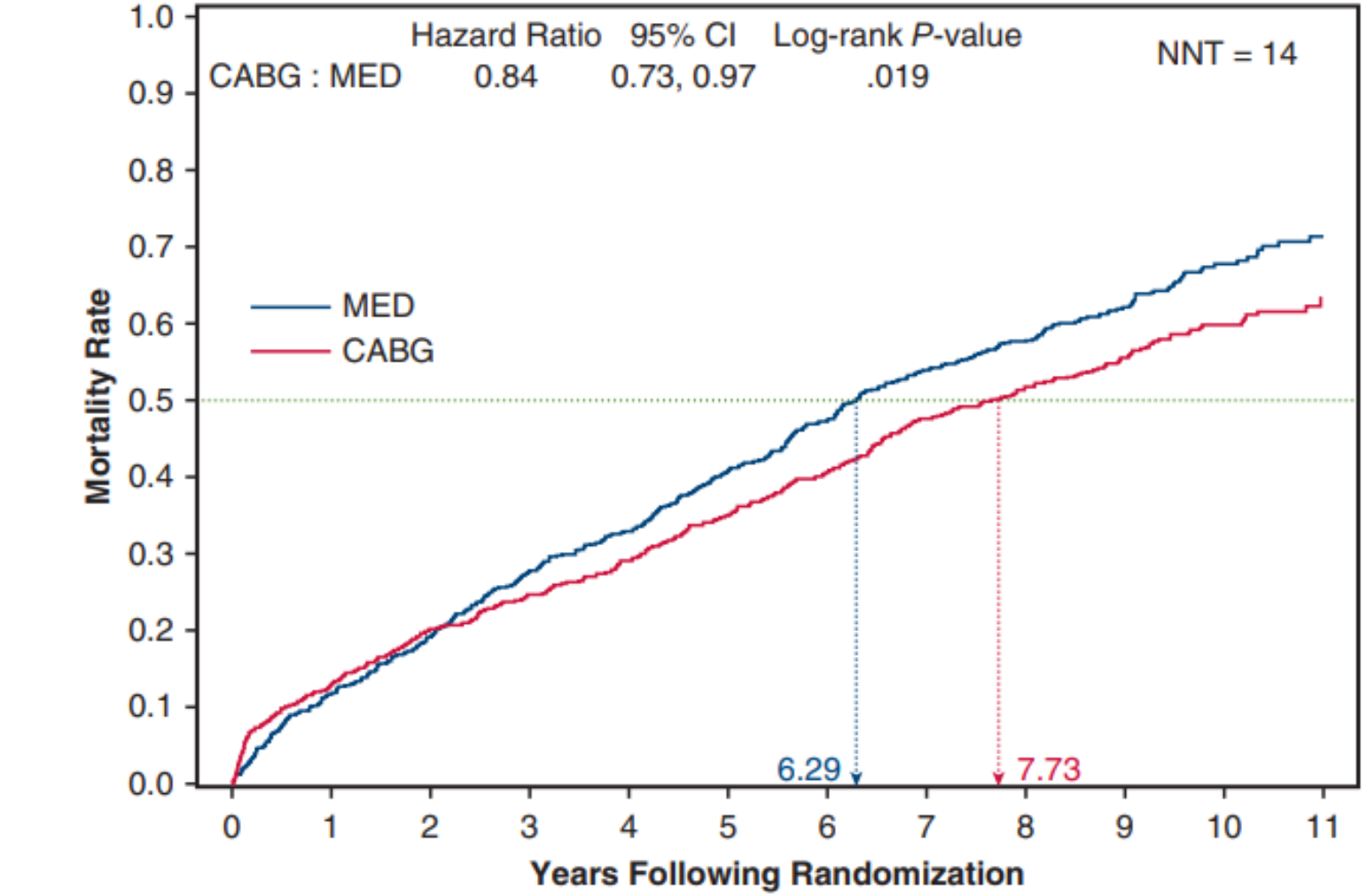


No. at Risk							
Medical therapy	602	532	487	435	312	154	80
CABG	610	532	486	459	340	174	91

Figure 1. Kaplan–Meier Curves for the Probability of Death from Any Cause.
CABG denotes coronary-artery bypass grafting.

Stich trial



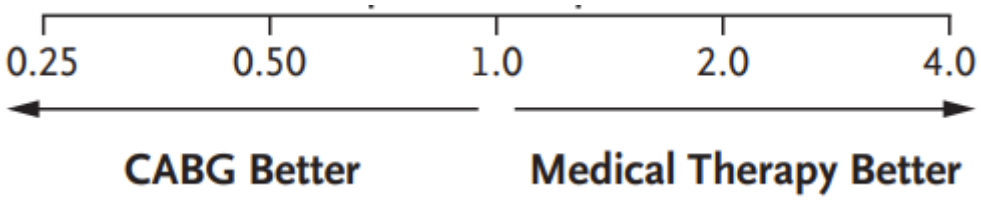


Patients at risk:

MED	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

The Journal of Thoracic and Cardiovascular Surgery • March 2019

Coronary-Artery Bypass Surgery in Patients with Ischemic Cardiomyopathy



Age		
≥60 yr	589	0.91 (0.75–1.10)
<60 yr	623	0.75 (0.60–0.93)
Sex		
Male	1064	0.85 (0.73–0.99)
Female	148	0.73 (0.46–1.16)
Race or ethnic group		
Hispanic, Latino, or nonwhite	421	0.67 (0.52–0.86)
White	791	0.95 (0.80–1.12)
Region or country		
Poland	319	1.01 (0.77–1.33)
United States	120	0.85 (0.55–1.31)
Canada	123	0.77 (0.48–1.22)
Western Europe	112	1.08 (0.68–1.69)

NEutestovat & NEuléčit

CLINICAL STATEMENTS AND GUIDELINES

Testing is also expensive and may lead to unnecessary downstream testing or delays in performing the indicated surgery.[12] Moreover, preoperative revascularization has not been shown to reduce perioperative MACE or cardiac mortality, and there is high potential for overtesting and overtreatment unless further perioperative testing

Circulation. 2024;150:e351–e442

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SKG **ne** u stabilní ICHS !!!

CLINICAL STATEMENTS AND GUIDELINES

4.6. Invasive Coronary Angiography

Recommendation for Invasive Coronary Angiography		
COR	**LOE**	**Recommendation**
3: No benefit	**C-LD**	1. In patients undergoing NCS, routine preoperative invasive coronary angiography (ICA) is not recommended to improve perioperative outcomes.[1,2]

2024 AHA/ACC/ACS/ASNC/HRS/SCA/SCCT/SCMR/SVM Guideline for Perioperative Cardiovascular Management for Noncardiac Surgery: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines


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Anestezie u pacienta s ICHS

MUDr. Hana Harazim, Ph.D., MUDr. Daniel Barvík, Veronika Krátká, Renáta Nevelöšová

Spustit interaktivní algoritmus | English | Otestovat své znalosti

Ischemická choroba srdeční je jednou z nejčastějších diagnóz v naší populaci, zároveň představuje nejčastější příčinu úmrtí v České republice. Díváme se tedy na velkou skupinu pacientů, a tak je velká pravděpodobnost, že se u některých z nich setkáme s komorbiditami, které bude třeba operačně vyřešit i se ztřetelem k tomuto onemocnění. Postupně algoritmus provede řešitele různými aspekty anestezie a perioperačního managementu u pacienta s ischemickou chorobou srdeční. Důraz je kladen i na některé situace, které mohou nastat v průběhu operace a jejich řešení.

https://www.akutne.cz/algorithm/cs/564-anestezie-u-pacienta-s-ichs/

Děkuji za pozornost