Θεραπευτικές εξελίξεις στη στεφανιαία νόσο-επεμβατική καρδιολογία

Τσαγάλου Ελευθερία

The NEW ENGLAND JOURNAL of MEDICINE

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Multivessel PCI Guided by FFR or Angiography for Myocardial Infarction

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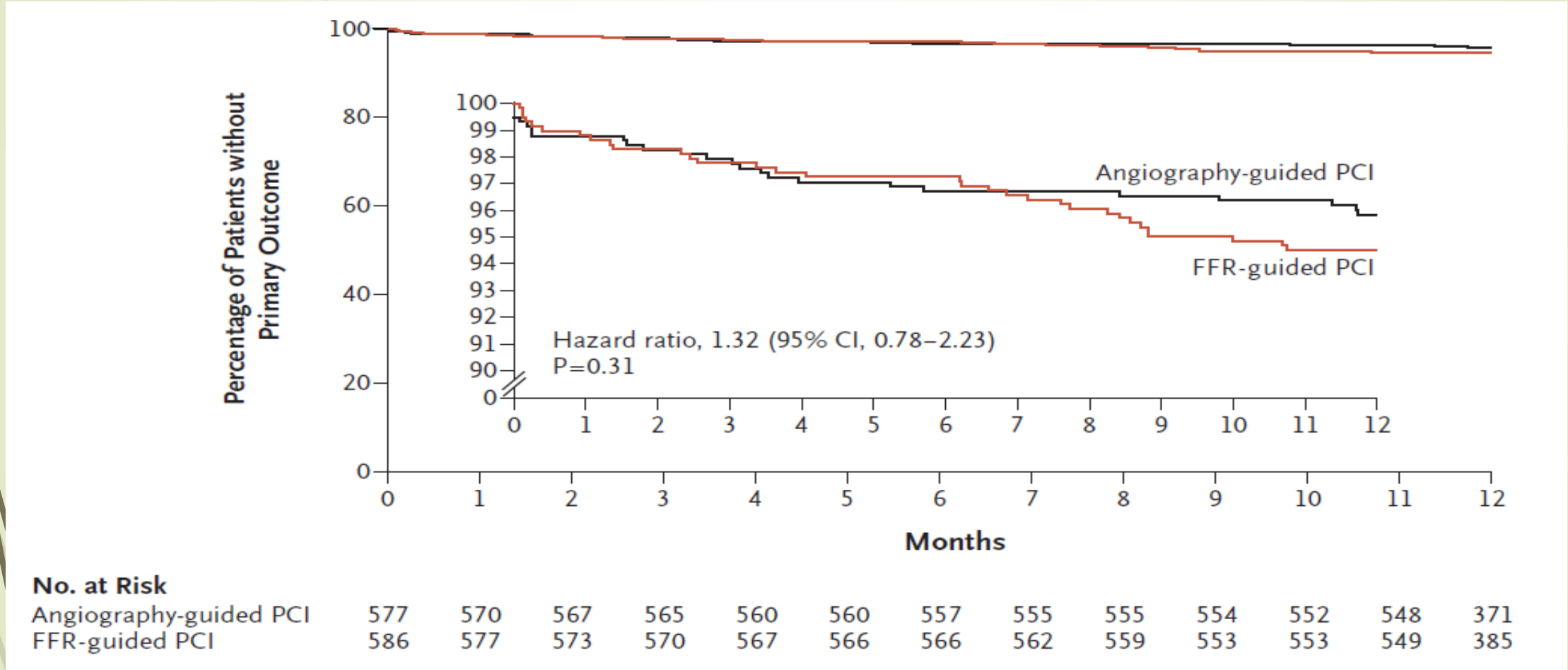
FFR vs angiography guided PCI post STEMI

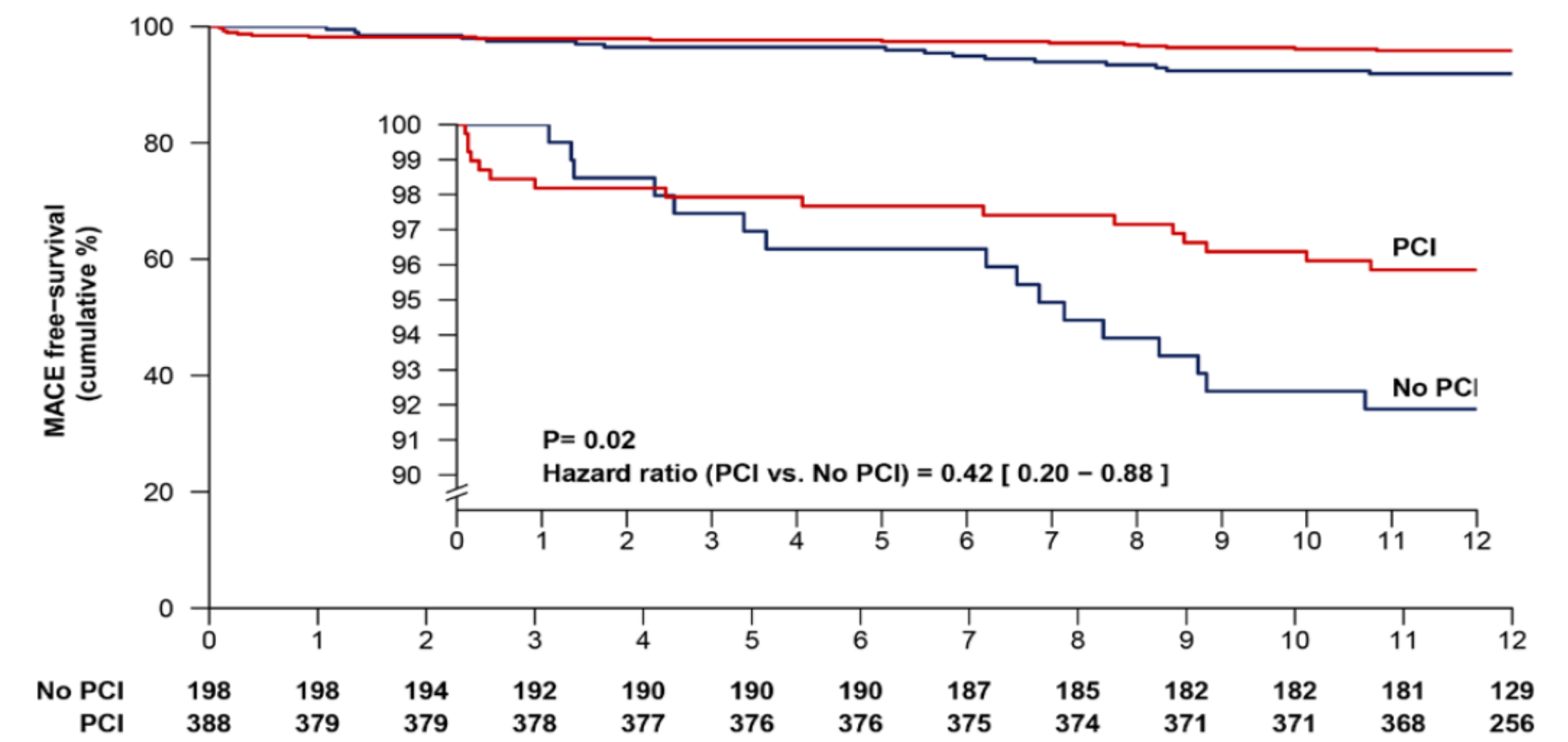


No. at Risk

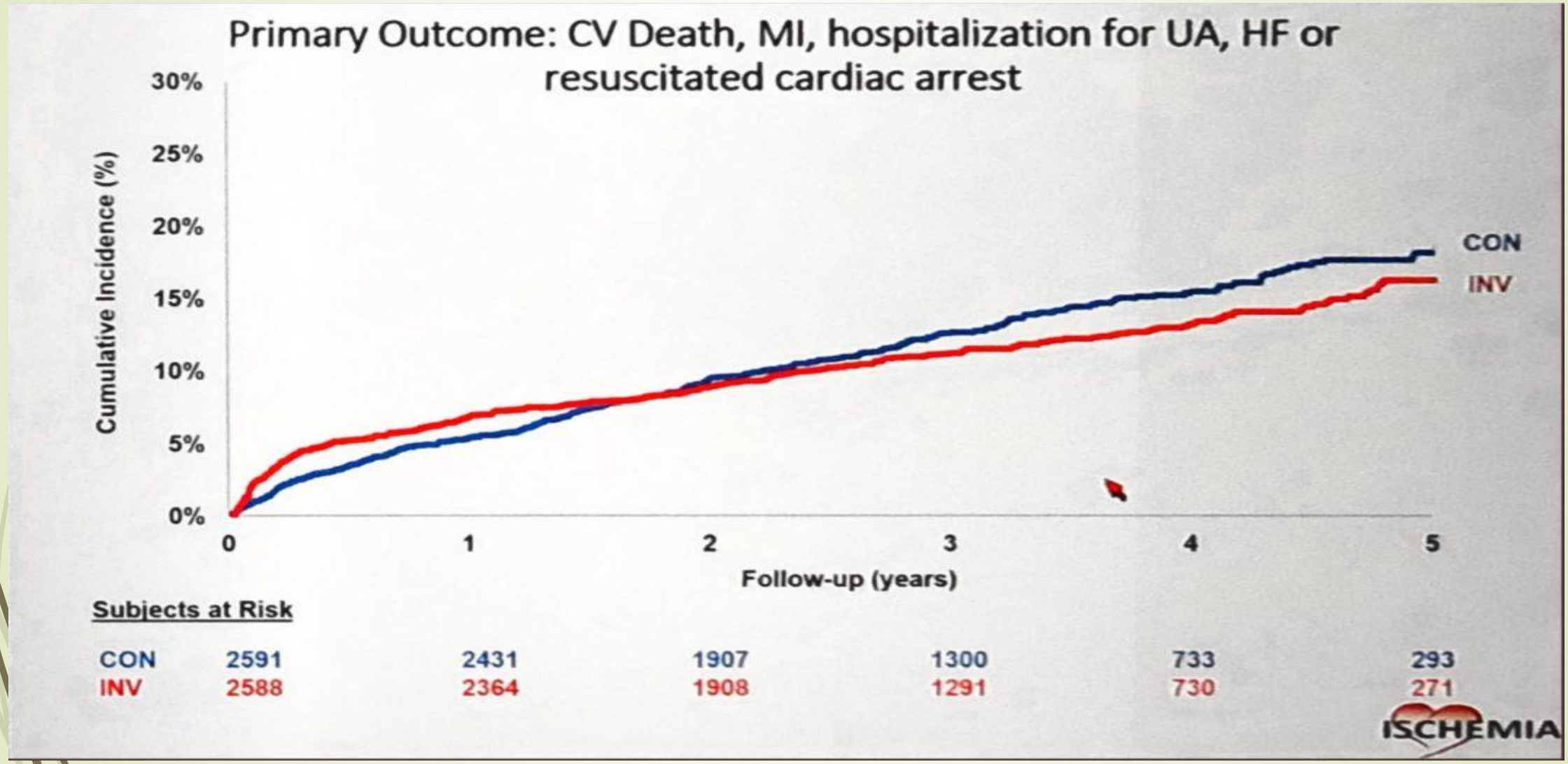
Angiography-guided PCI	577	570	567	565	560	560	557	555	555	554	552	548	371
FFR-guided PCI	586	577	573	570	567	566	566	562	559	553	553	549	385

The primary outcome was a composite of death from any cause, nonfatal myocardial infarction, or unplanned hospitalization leading to urgent revascularization

Outcomes according to FFR guided treatment of the non culprit lesions



Revascularization vs medical therapy for patients with stable ischeamic heart disease



Revascularization to Improve Survival in SIHD Compared With Medical Therapy (con't.)

Multivessel CAD		
2b	B-R	5. In patients with SIHD, normal ejection fraction, significant stenosis in 3 major coronary arteries (with or without proximal LAD), and anatomy suitable for CABG, CABG may be reasonable to improve survival.
2b	B-R	6. In patients with SIHD, normal ejection fraction, significant stenosis in 3 major coronary arteries (with or without proximal LAD), and anatomy suitable for PCI, the usefulness of PCI to improve survival is uncertain.

2021 ACC/AHA/SCAI Guideline for Coronary Artery Revascularization

Revascularization to Improve Survival in SIHD Compared With Medical Therapy (con't.)

Stenosis in the proximal LAD artery		
2b	**B-R**	**7. In patients with SIHD, normal left ventricular ejection fraction, and significant stenosis in the proximal LAD, the usefulness of coronary revascularization to improve survival is uncertain.**
Single- or double-vessel disease not involving the proximal LAD		
3: No Benefit	**B-R**	**8. In patients with SIHD, normal left ventricular ejection fraction, and 1- or 2-vessel CAD not involving the proximal LAD, coronary revascularization is not recommended to improve survival.**

Revascularization to Improve Survival in SIHD Compared With Medical Therapy (con't.)

3: Harm	B-NR	9. In patients with SIHD who have ≥1 coronary arteries that are not anatomically or functionally significant (<70% diameter of non–left main coronary artery stenosis, FFR >0.80), coronary revascularization should not be performed with the primary or sole intent to improve survival.

2021 ACC/AHA/SCAI Guideline for Coronary Artery Revascularization

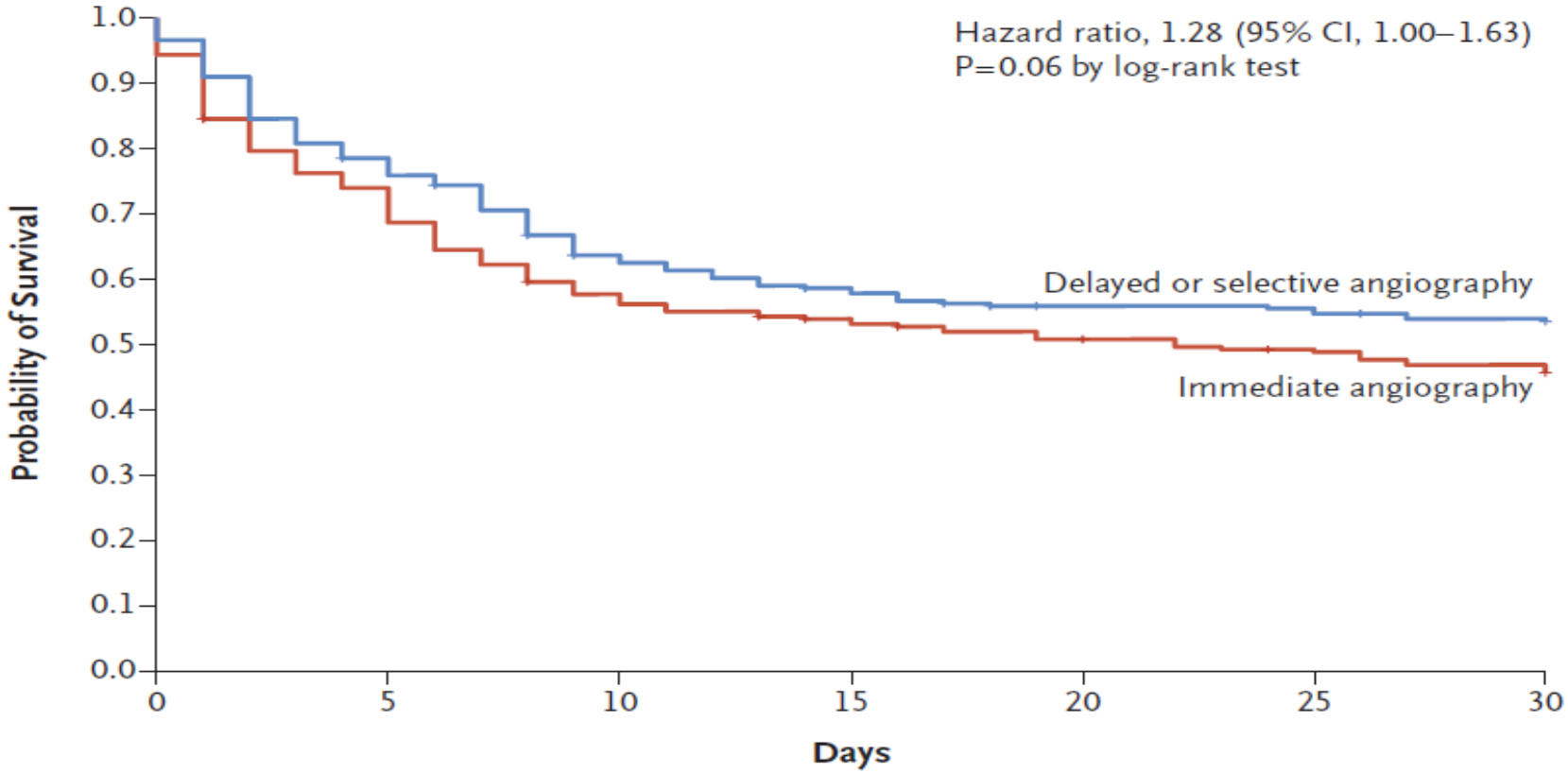
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Angiography after Out-of-Hospital Cardiac Arrest without ST-Segment Elevation

S. Desch, A. Freund, I. Akin, M. Behnes, M.R. Preusch, T.A. Zelniker, C. Skurk, U. Landmesser, T. Graf, I. Eitel, G. Fuernau, H. Haake, P. Nordbeck, F. Hammer, S.B. Felix, C. Hassager, T. Engstrøm, S. Fichtlscherer, J. Ledwoch, K. Lenk, M. Joner, S. Steiner, C. Liebetrau, I. Voigt, U. Zeymer, M. Brand, R. Schmitz, J. Horstkotte, C. Jacobshagen, J. Pöss, M. Abdel-Wahab, P. Lurz, A. Jobs, S. de Waha-Thiele, D. Olbrich, F. Sandig, I.R. König, S. Brett, M. Vens, K. Klinge, and H. Thiele, for the TOMAHAWK Investigators*

Kaplan–Meier Estimates of Death from Any Cause at 30 Days



No. at Risk							
Delayed or selective angiography	265	207	163	149	139	138	133
Immediate angiography	265	195	151	138	129	123	117

Selected Secondary Outcomes at 30 days		
All cause 30d mortality OR severe neurological deficit	64.3%	55.6%
RR 1.16 (95% CI 1.00 - 1.34). ARI 8.7% (95% CI 0.14 - 17.2%)		
MI	0%	0.8%
Severe neurological deficit	18.8%	12.7%
Median ICU LOS (days)	7	8
Rehospitalisation for congestive cardiac failure	0.4%	0.4%

Selected Subgroup Analyses		
Age < 65	40/100 (40%)	28/90 (31%)
HR 1.37 (0.84 - 2.23)		
Shockable as first monitored rhythm	49/126 (39%)	43/142 (30%)
HR 1.44 (0.95 - 2.19)		
Confirmed MI as OHCA trigger	18/47 (38%)	18/43 (42%)
HR 0.97 (0.50 - 1.90)		
Time from arrest to ROSC ≥ 15 mins	99/171 (58%)	97/170 (57%)
HR 1.02 (0.76 - 1.36)		

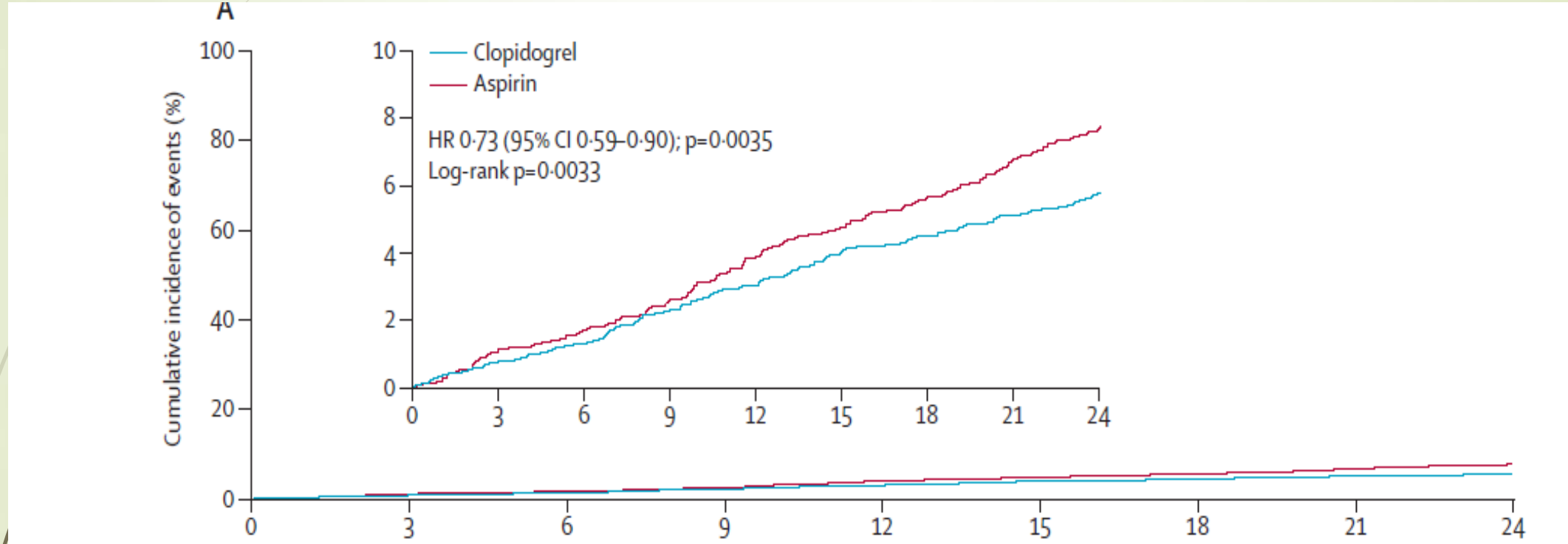
Aspirin versus clopidogrel for chronic maintenance monotherapy after percutaneous coronary intervention (HOST-EXAM): an investigator-initiated, prospective, randomised, open-label, multicentre trial

Bon-Kwon Koo, Jeehoon Kang*, Kyung Woo Park*, Tae-Min Rhee, Han-Mo Yang, Ki-Bum Won, Seung-Woon Rha, Jang-Whan Bae, Nam Ho Lee, Seung-Ho Hur, Junghan Yoon, Tae-Ho Park, Bum Soo Kim, Sang Wook Lim, Yoon Haeng Cho, Dong Woon Jeon, Sang-Hyun Kim, Jung-Kyu Han, Eun-Seok Shin, Hyo-Soo Kim, on behalf of the HOST-EXAM investigators†*

***Lancet* 2021; 397: 2487–96**

Primary end point

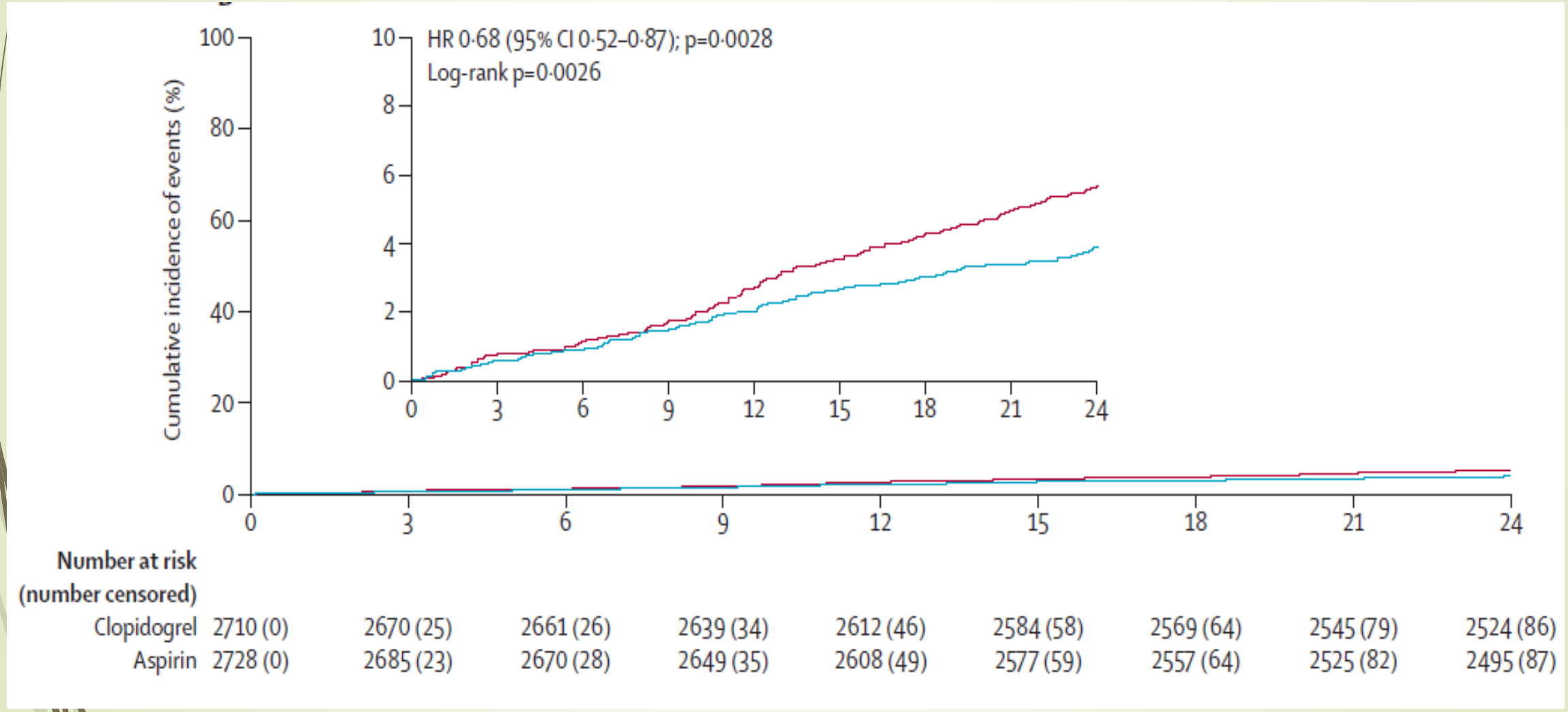
All-cause death, non-fatal MI, stroke, readmission due to ACS, and major bleeding



Number at risk (number censored)									
Clopidogrel	2710 (0)	2667 (22)	2654 (22)	2626 (24)	2597 (33)	2565 (41)	2549 (43)	2521 (54)	2500 (58)
Aspirin	2728 (0)	2677 (23)	2657 (26)	2629 (31)	2585 (40)	2555 (48)	2531 (49)	2493 (64)	2456 (66)

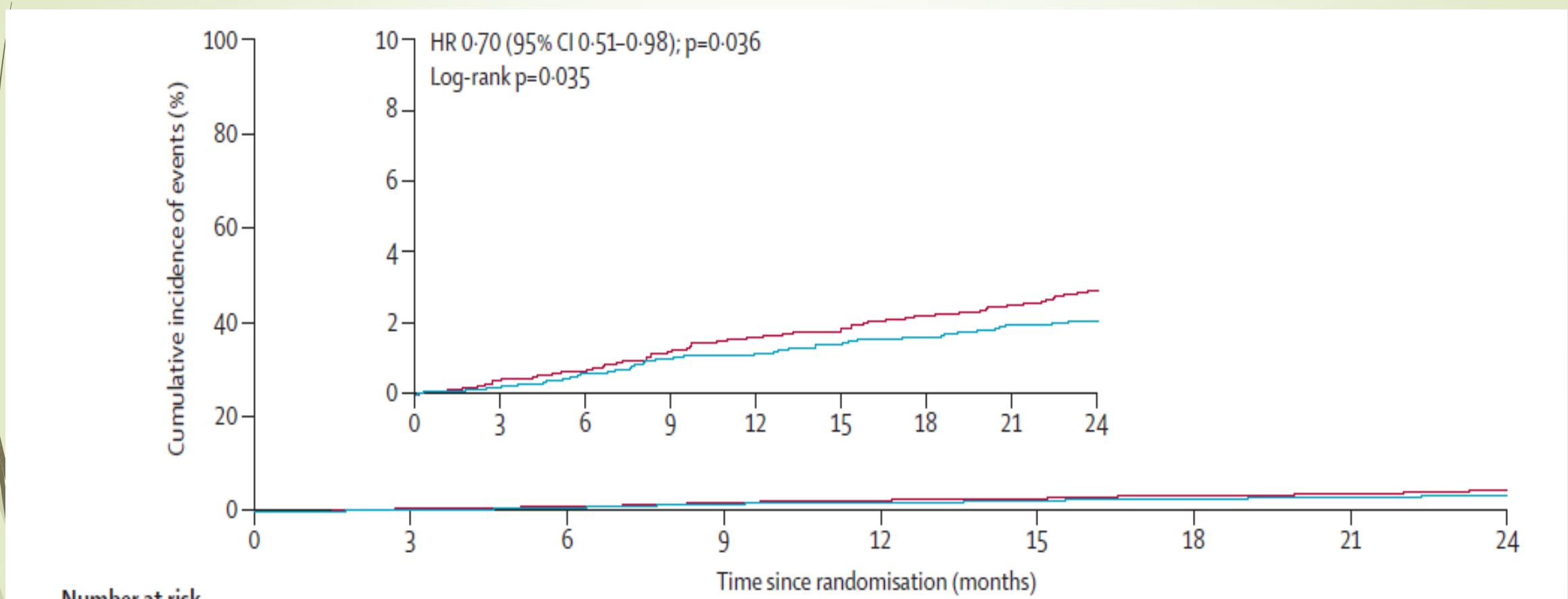
Thrombotic end point

Cardiac death, MI, ischaemic stroke, readmission due to ACS, stent thrombosis

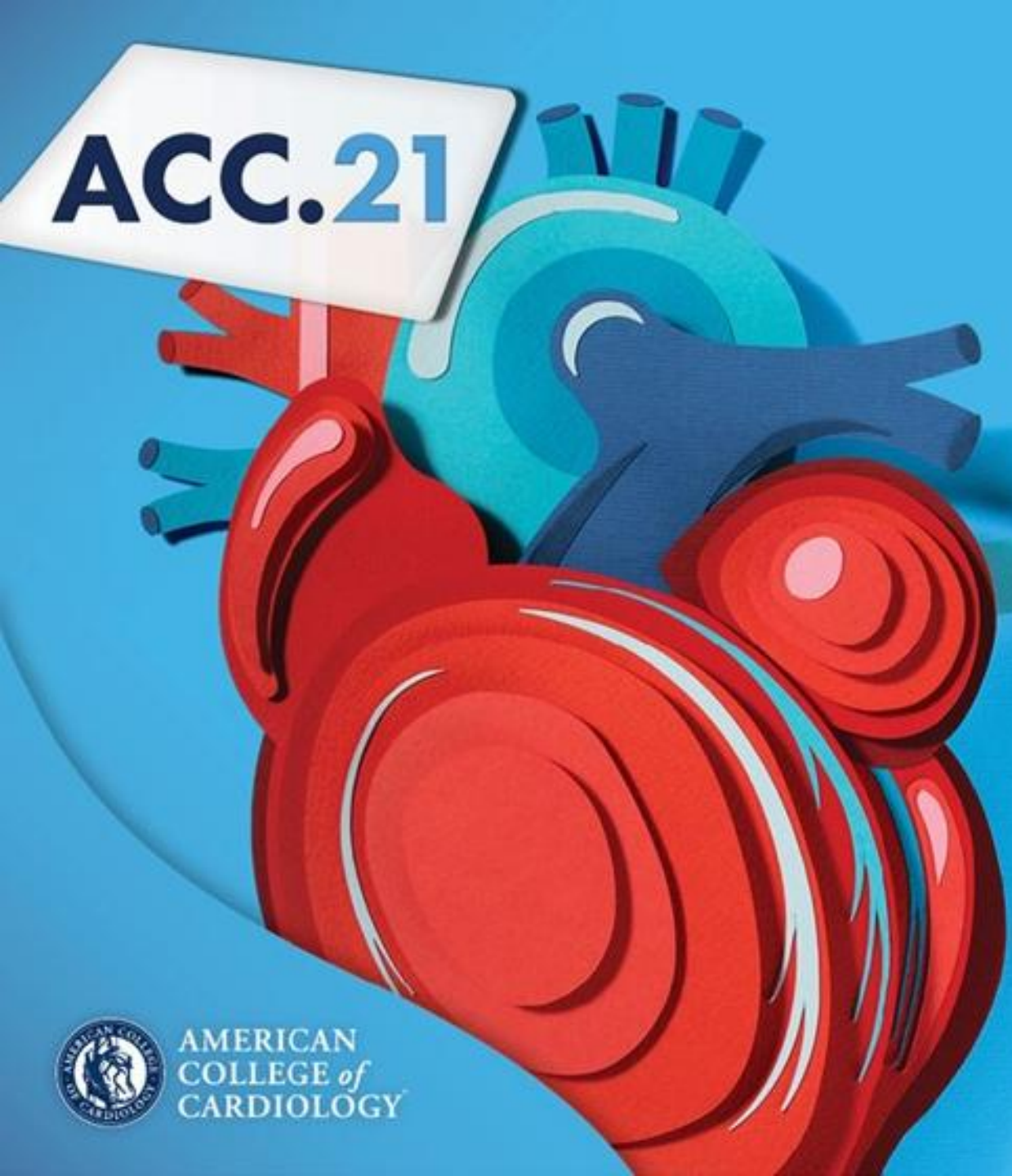


Number at risk (number censored)									
Clopidogrel	2710 (0)	2670 (25)	2661 (26)	2639 (34)	2612 (46)	2584 (58)	2569 (64)	2545 (79)	2524 (86)
Aspirin	2728 (0)	2685 (23)	2670 (28)	2649 (35)	2608 (49)	2577 (59)	2557 (64)	2525 (82)	2495 (87)

Incidence of any bleeding events



Number at risk (number censored)									
Clopidogrel	2710 (0)	2676 (28)	2664 (29)	2643 (37)	2621 (56)	2597 (72)	2585 (77)	2556 (98)	2542 (105)
Aspirin	2728 (0)	2690 (26)	2677 (31)	2653 (39)	2626 (54)	2610 (65)	2595 (67)	2572 (85)	2547 (93)



Ticagrelor vs. Clopidogrel in Stabilized Patients after AMI

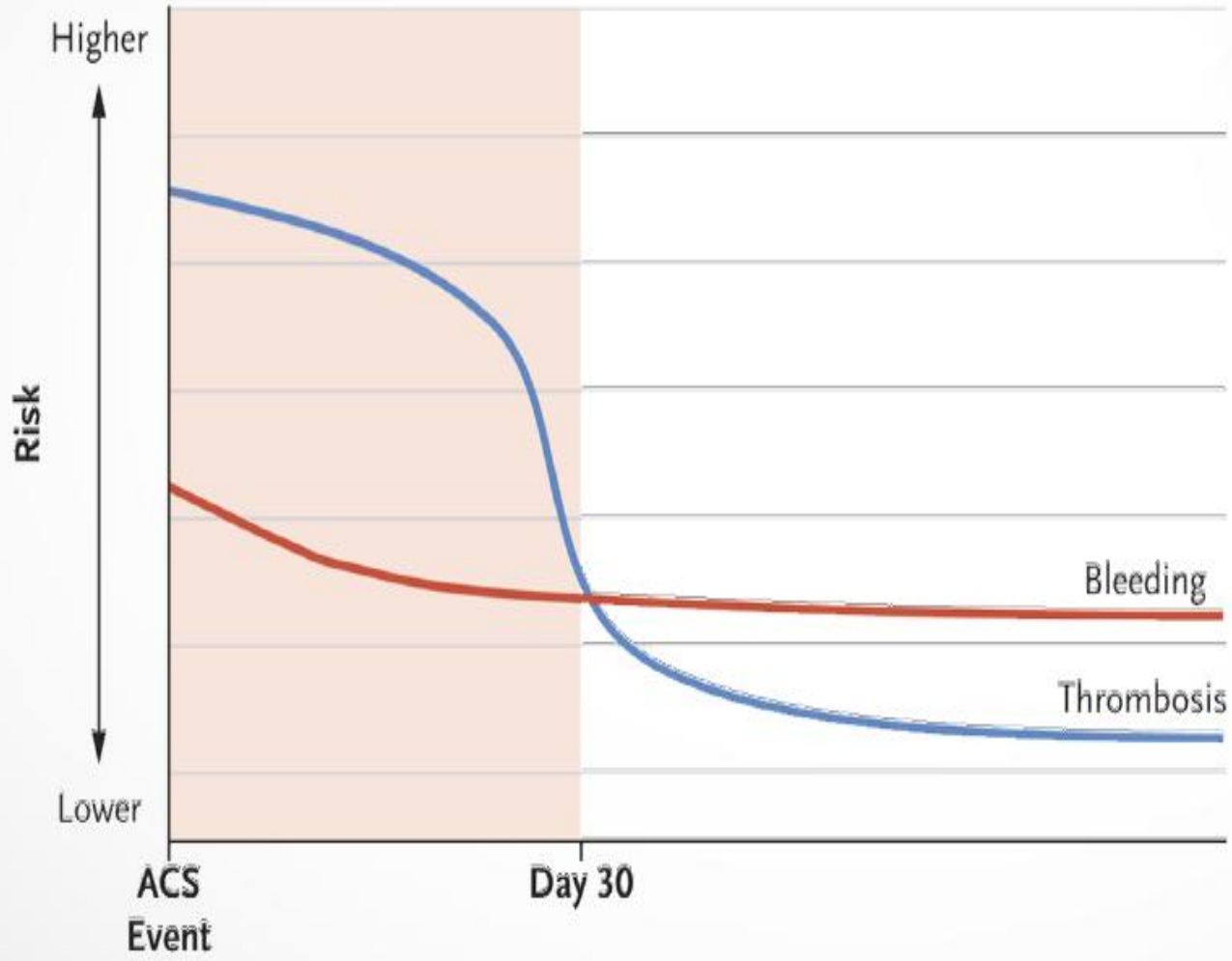
: TALOS-AMI trial

A Multicenter, Randomized, Open-label trial

Kiyuk Chang
MD, Ph.D
On behalf of the TALOS-AMI trial investigators

AMERICAN COLLEGE of CARDIOLOGY

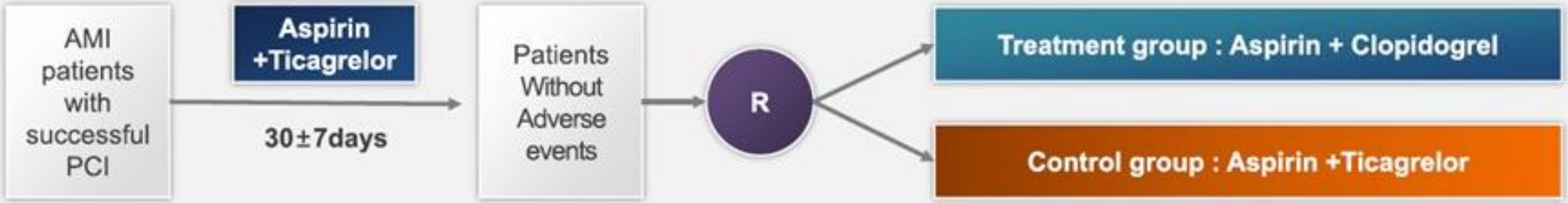
Risks of thrombosis & bleeding after acute myocardial infarction (AMI)

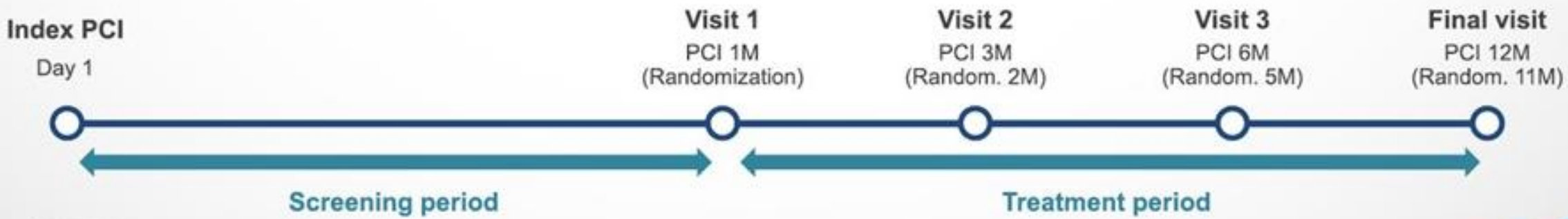


F Rodriguez, RA Harrington.
N Engl J Med
2021;384:452-460.

Study Design

A multicenter, randomized, and open-label study

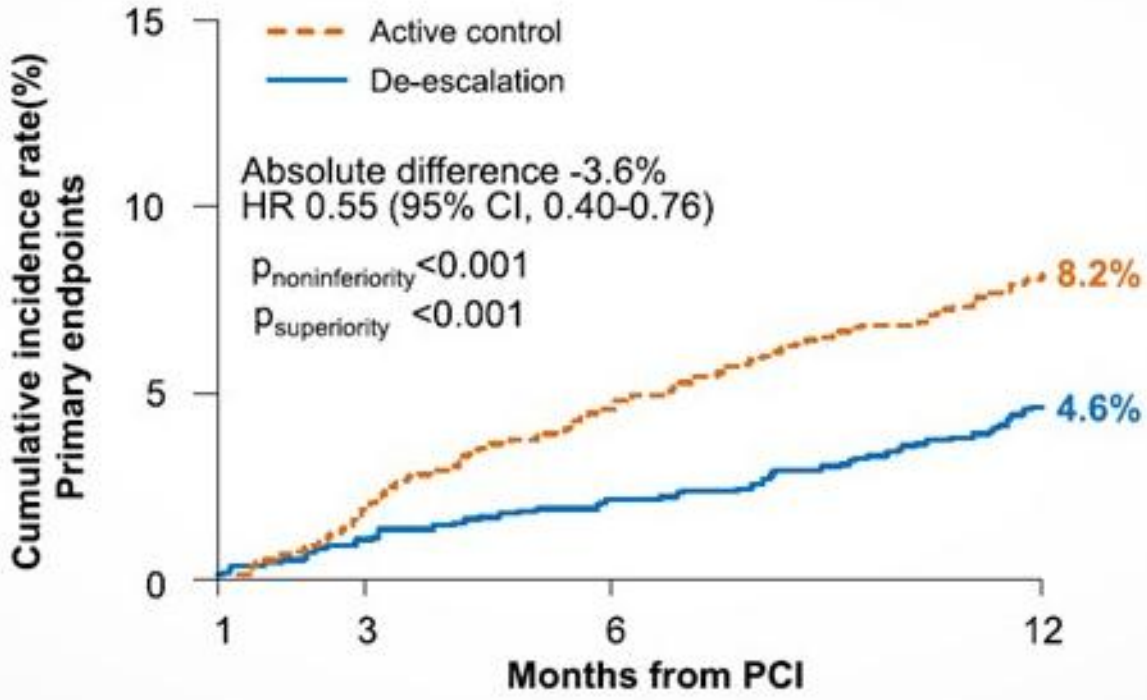




ACC.21

Primary Endpoint

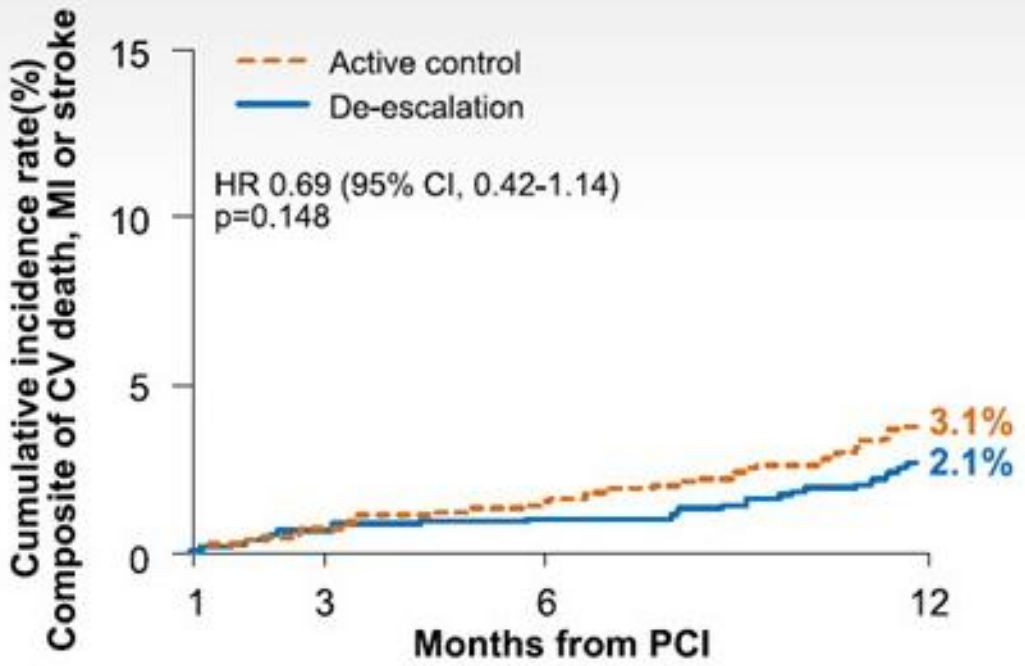
Composite of cardiovascular death, MI, stroke and
BARC bleeding (type 2,3, or 5)



Number at risk				
De-escalation	1349	1291	1247	1172
Active control	1348	1273	1191	1099

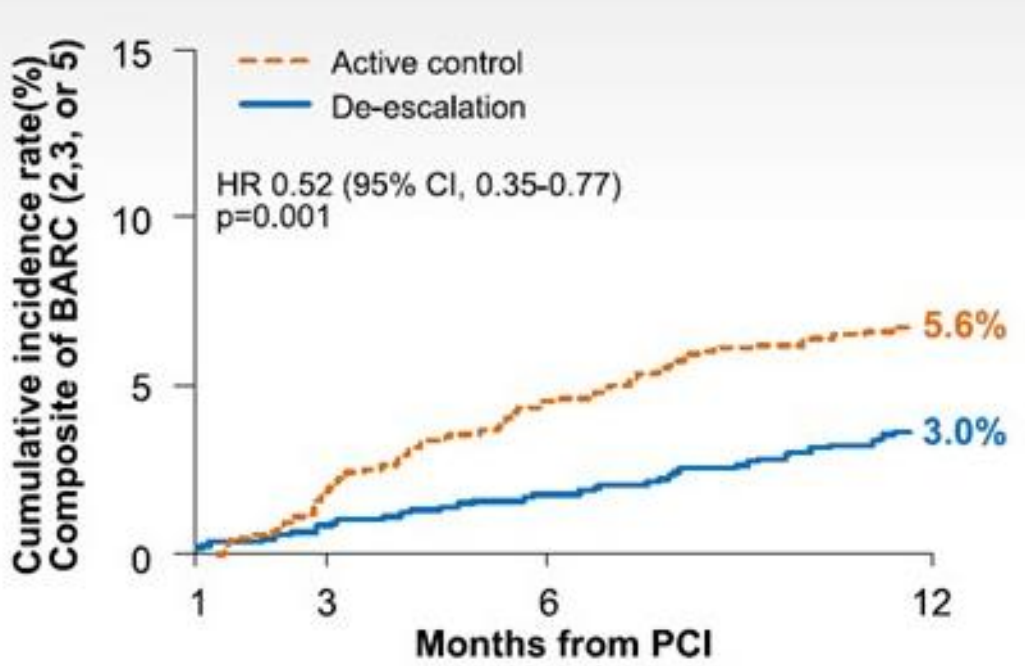
Main Secondary Endpoints

Composite of cardiovascular death, MI, and stroke



	Number at risk			
De-escalation	1349	1299	1264	1201
Active control	1348	1288	1226	1147

Composite of BARC bleeding (type 2,3, or 5)



	Number at risk			
De-escalation	1349	1293	1251	1180
Active control	1348	1276	1197	1120

ACC.21

Asymptomatic aortic valve stenosis

Intervention should be considered in asymptomatic patients with LVEF >55% and a normal exercise test if the procedural risk is low and one of the following parameters is present: • Very severe aortic stenosis (mean gradient ≥60 mmHg or V_{max} >5 m/s).[9,242] • Severe valve calcification (ideally assessed by CCT) and V_{max} progression ≥0.3 m/s/year.[164,189,243]	**IIa**	**B**

2021 ESC/EACTS Guidelines

Circulation

ORIGINAL RESEARCH ARTICLE

Aortic Valve Replacement Versus Conservative Treatment in Asymptomatic Severe Aortic Stenosis: The AVATAR Trial

Marko Banovic, MD, PhD; Svetozar Putnik, MD, PhD; Martin Penicka, MD, PhD; Gheorghe Doros, PhD; Marek A. Deja, MD, PhD; Radka Kockova, MD, PhD; Martin Kotrc, MD; Sigita Glaveckaite, MD, PhD; Hrvoje Gasparovic, MD, PhD; Nikola Pavlovic, MD, PhD; Lazar Velicki, MD, PhD; Stefano Salizzoni, MD, PhD; Wojtek Wojakowski, MD, PhD; Guy Van Camp, MD, PhD; Serge D. Nikolic, PhD; Bernard Iung, MD; Jozef Bartunek, MD, PhD; on behalf of the AVATAR Trial Investigators*

AVATAR Trial

Inclusion Criteria

Main Inclusion Criteria

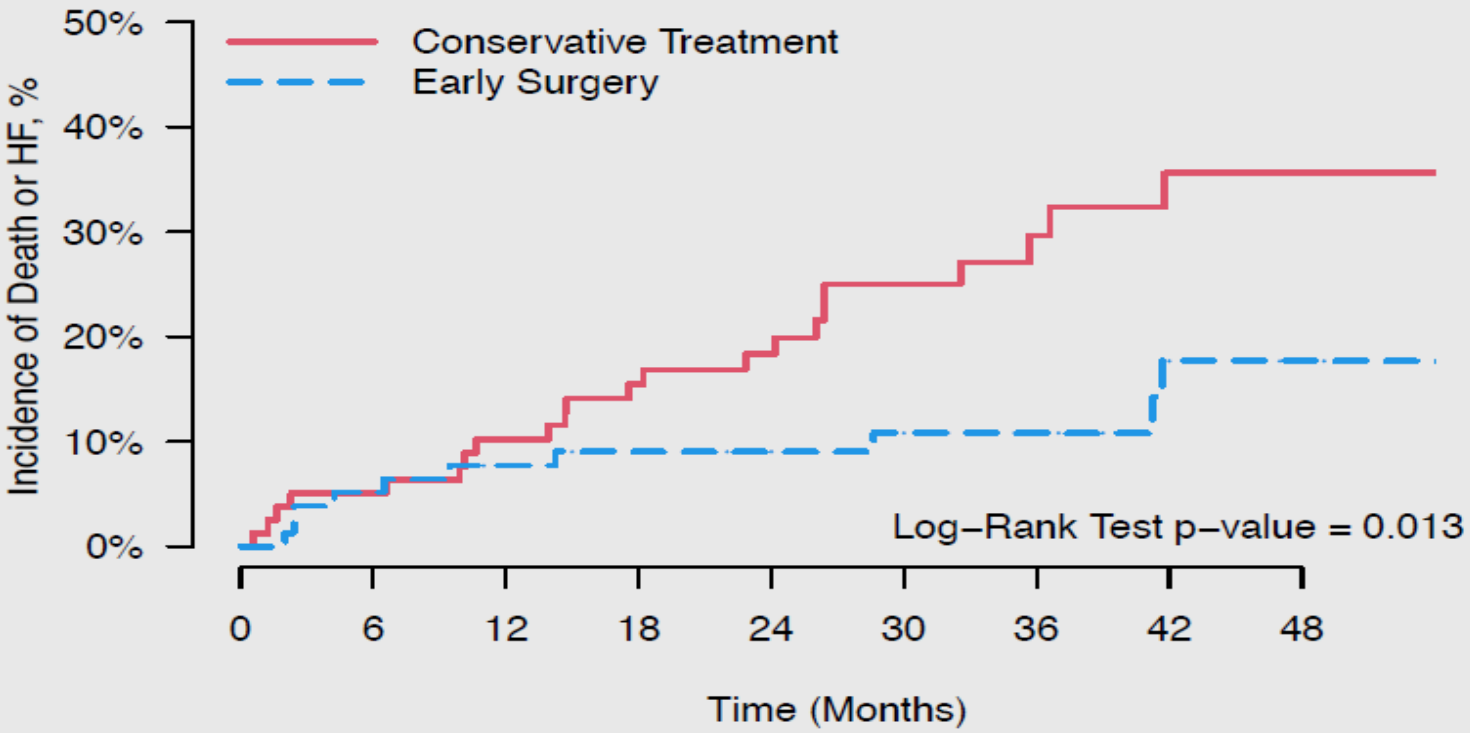
- Age $\geq$ 18 years
- Severe aortic stenosis:
  - V_{max} > 4 m/s or mean PG $\geq$ 40 mmHg
  - AVA $\leq$ 1 cm^2 or AVA_i $\leq$ 0.6 cm^2/m^2
- Without symptoms: confirmed exercise testing
- Society of Thoracic Surgeons (STS) score < 8%

Main Exclusion Criteria

- Positive exercise testing
- LV ejection fraction < 50% at rest
- Very severe, critical aortic stenosis:
  - V_{max} > 5.5 m/s
- Need for aortic or other valve surgery
- Previous cardiac surgery
- Major co-morbidities or life expectancy <3 year

AVATAR Trial

All Cause Death and HF hospitalization



Patients, n									
Conservative Treat.	79	75	69	63	54	39	27	20	13
Early Surgery	78	74	70	65	58	48	40	24	14

HR 0.40; 95% CI 0.19 - 0.84

ESC European Society of Cardiology

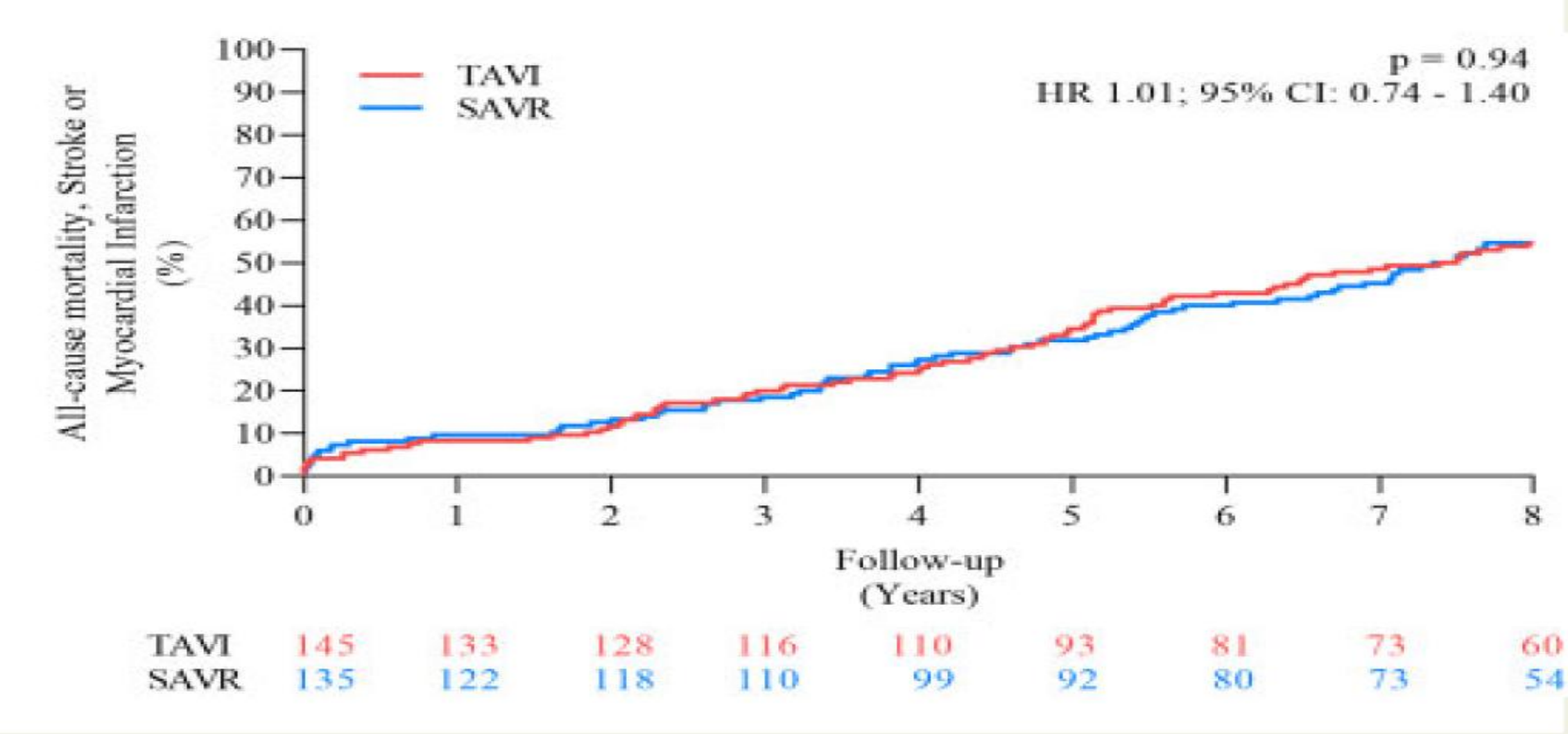
European Heart Journal (2021) **42**, 2912–2919
doi:10.1093/eurheartj/ehab375

CLINICAL RESEARCH
Valvular heart disease

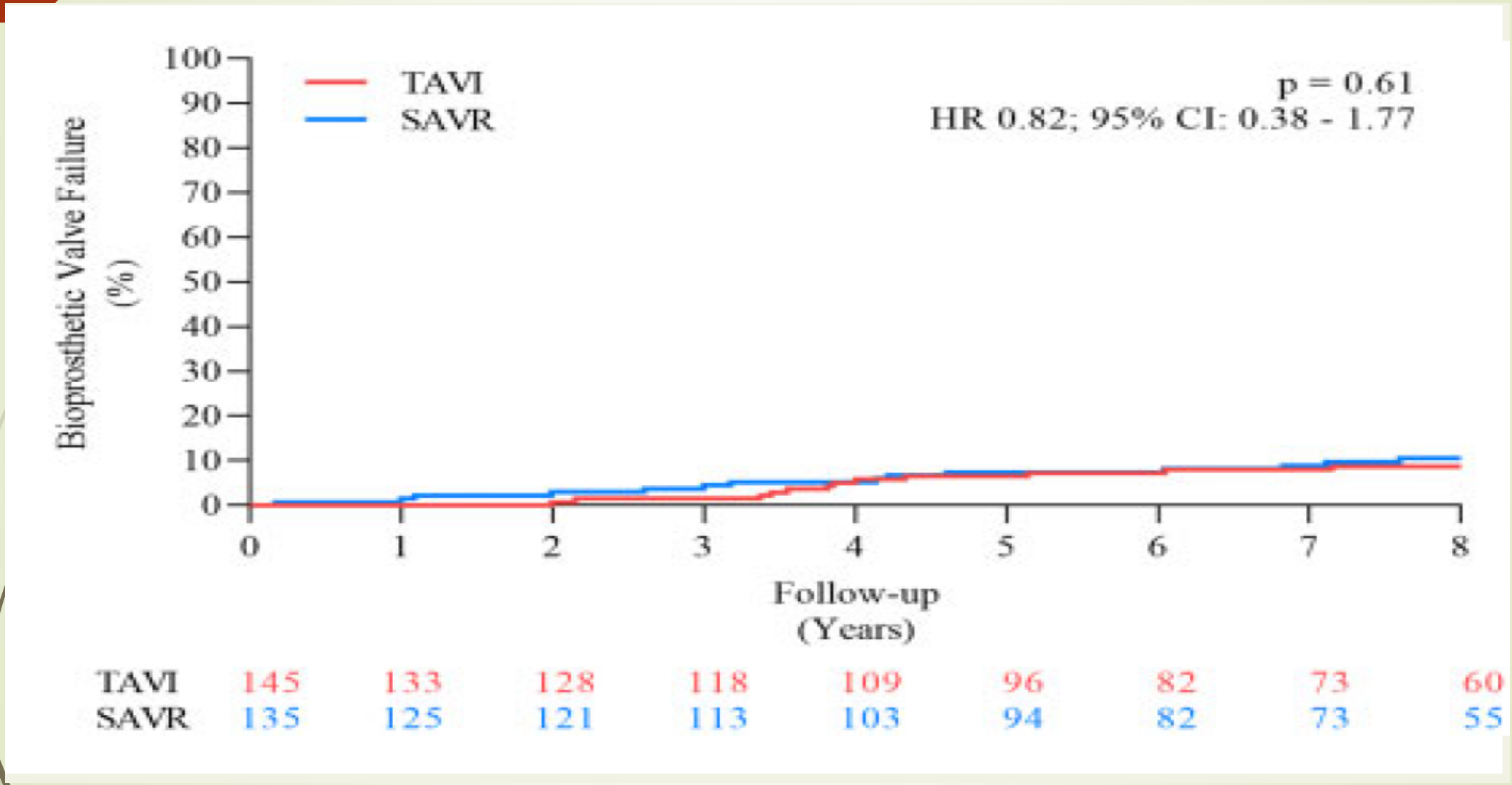
Eight-year outcomes for patients with aortic valve stenosis at low surgical risk randomized to transcatheter vs. surgical aortic valve replacement

Troels Højsgaard Jørgensen[1]*†, Hans Gustav Hørsted Thyregod[2†], Nikolaj Ihlemann[3], Henrik Nissen[3], Petur Petursson[4], Bo Juel Kjeldsen[5], Daniel Andreas Steinbrüchel[6], Peter Skov Olsen[2], and Lars Søndergaard[1]

Estimated risk of all-cause mortality, stroke or myocardial infarction



Bioprosthetic valve failure



Complications

	TAVI (*n* = 145)	SAVR (*n* = 135)	*P*-value
All-cause mortality	51.8 (8.5)	52.6 (8.7)	0.90
Cardiovascular death	40.6 (6.6)	43.6 (7.2)	0.64
Stroke	8.3 (1.4)	9.1 (1.7)	0.90
Transient ischaemic attack	7.6 (1.3)	5.3 (0.9)	0.41
Myocardial Infarction	6.2 (1.1)	3.8 (0.6)	0.33
New-onset atrial fibrillation	50.0 (18.5)	74.1 (53.1)	<0.0001
New permanent pacemaker	42.5 (11.0)	10.9 (1.9)	<0.0001

Ευχαριστώ