Tratamiento de la enfermedad coronaria antes, durante o después de un TAVI

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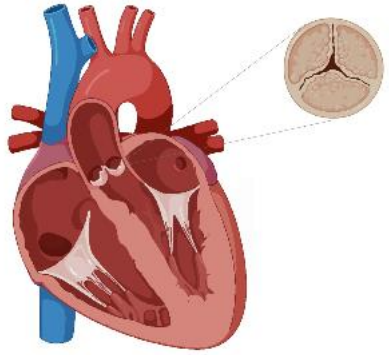
Conflictos de Interés

O Mendiz MD.

Medtronic: Proctor Evolute, Speaker
Edwards: Proctor, speaker
Meril Lifescience: Proctor MyValv, speaker
Microport: Proctor VitaFlow
Abbott: Proctor MitraClip
Jotec; Proctor
Oclutech,

Impact of Aortic Stenosis on Coronary Anatomy and Physiology

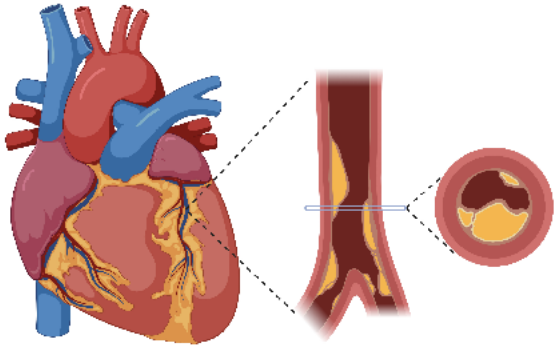
Reduced coronary perfusion pressure due to reduced stroke volume, systolic and mean arterial pressure



Upregulation of vasoactive factors, leading to **increased resting blood flow**

Reversal of normal **endocardial-epicardial blood flow** ratio at rest

+



Reduced diastolic coronary perfusion phase

Increased resting diastolic backward expansion wave

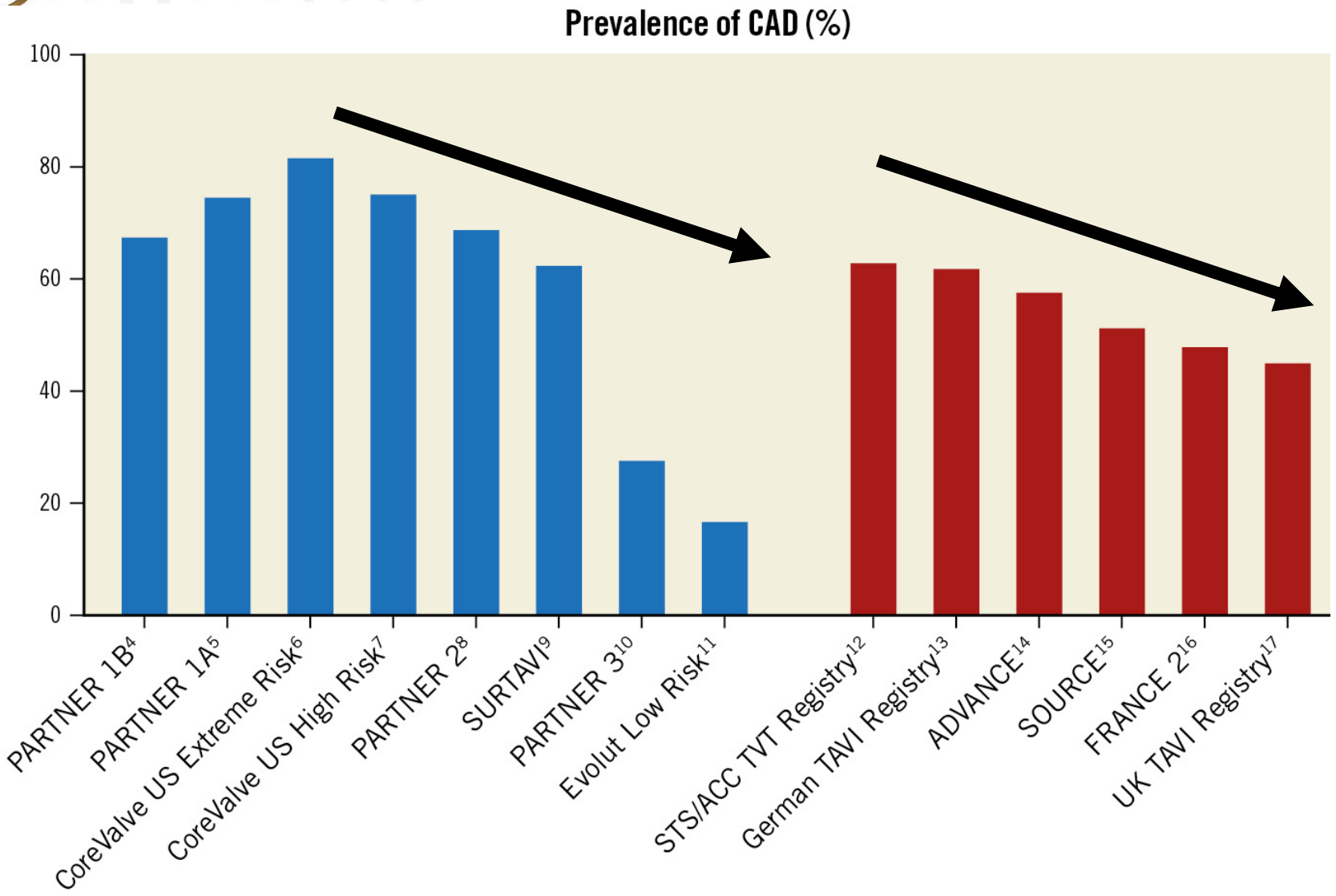
Attenuated and delayed systolic forward compression wave of coronary blood flow

Attenuated coronary flow reserve

Tarantini G et al. EuroIntervention. 2023 May 15;19(1):37-52.

Modified from R Mehran

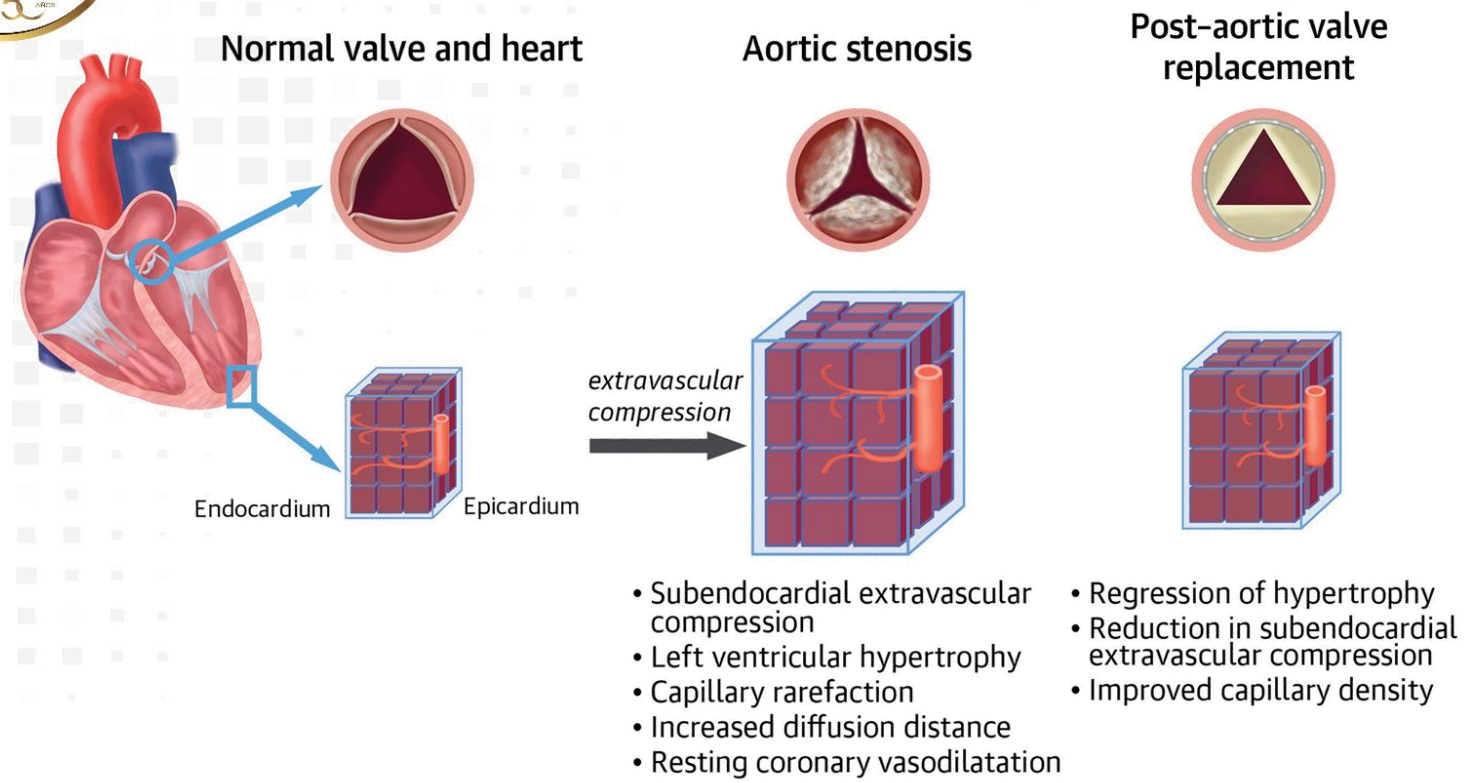
Prevalence of CAD in Patients Treated with TAVR

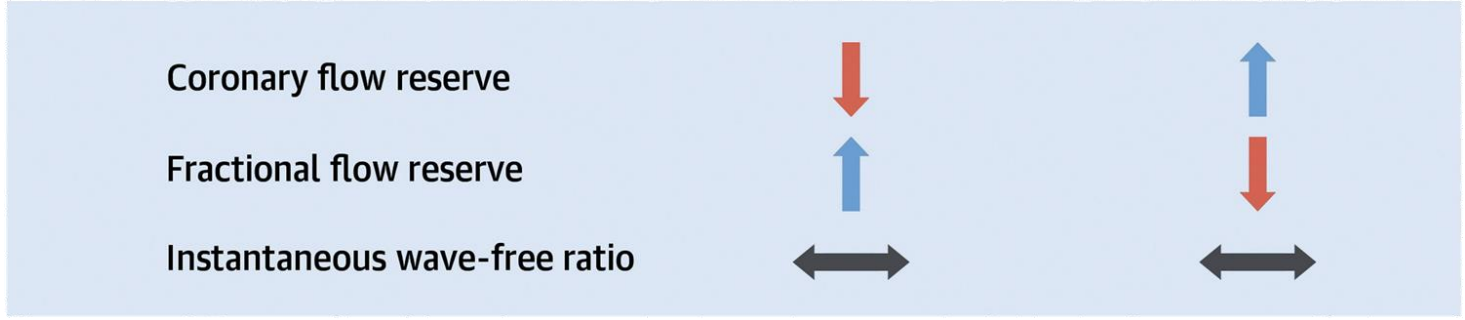


*patients with severe CAD (i.e., SYNTAX score >22, left main CAD) and those with a recent percutaneous coronary intervention (PCI) were excluded

Tarantini G et al. EuroIntervention. 2023 May 15;19(1):37-52.

Coronary Revascularization in Patients Undergoing TAVR for Severe Aortic Stenosis



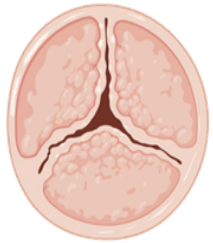


- Myocardial remodeling changes related to AS and reverse remodeling related to Aortic Valve Replacement

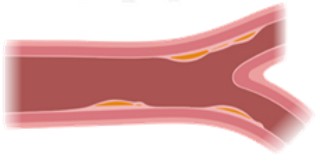
Kush P. Patel et al. J Am Coll Cardiol Intv 2021; 14:2083-2096.

Impact of Coronary Artery Disease on Cardiovascular Outcomes Differs Between Men and Women With Severe Aortic Stenosis

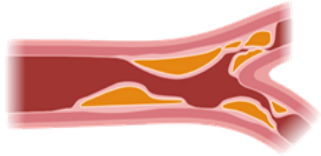
Patients with severe AS in the PARTNER 1, 2, and 3 trials and registries were stratified by obstructive CAD (coronary stenosis ≥50%, prior myocardial infarction, or revascularization) or no obstructive CAD (all stenoses <50%)



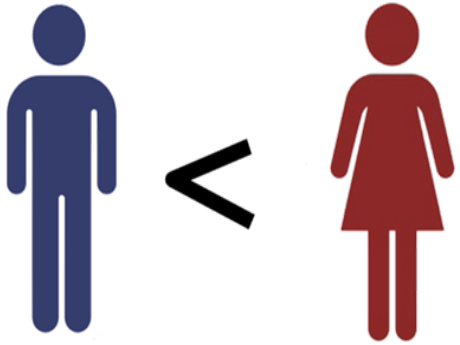
SEVERE AORTIC STENOSIS



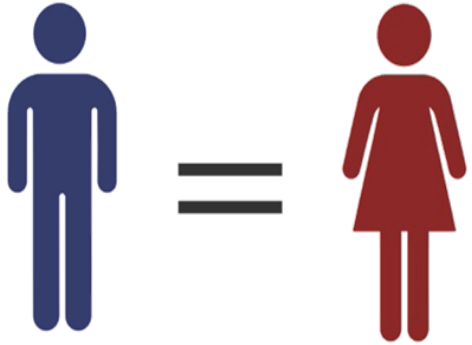
No Obstructive CAD



Obstructive CAD



Women with no obstructive CAD had a higher rate of adverse events after AS treatment compared with men



Men and women with obstructive CAD had a similar rate of adverse events after AS treatment

Brown K, et al. *Circ Cardiovasc Interv*. 2025;18:e014999

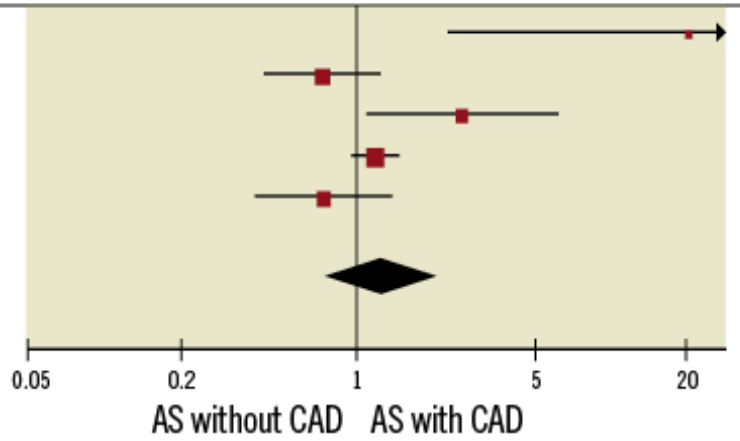
Obstructive CAD was associated with a higher risk of long-term adverse events after treatment for severe AS, but there was a significant sex disparity in clinical outcomes among men and women with no obstructive CAD

Kayla Brown. Circ Cardiovascular Interventions., 2025; Volume: 18, Issue: 8, Pages: e014999, DOI: (10.1161/CIRCINTERVENTIONS.124.014999)

Outcome of patients undergoing TAVR with concomitant CAD

Study or Subgroup	log[Odds ratio]	SE	Weight	Odds ratio IV, Random, 95% CI
Dewey et al, 2010	3.0106	1.1111	4.9%	20.30 [2.30, 179.17]
Franzone et al, 2017	–0.3147	0.27	24.4%	0.73 (0.43, 1.24]
Mancio et al, 2015	0.9555	0.4389	17.3%	2.60 [1.10, 6.15]
Snow et al, 2015	0.1655	0.1053	30.9%	1.18 (0.96, 1.45]
Ussia et al, 2013	–0.3011	0.3139	22.4%	0.74 (0.40, 1.37]
Total (95% CI)			**100.0%**	**1.25 [0.74, 2.11**

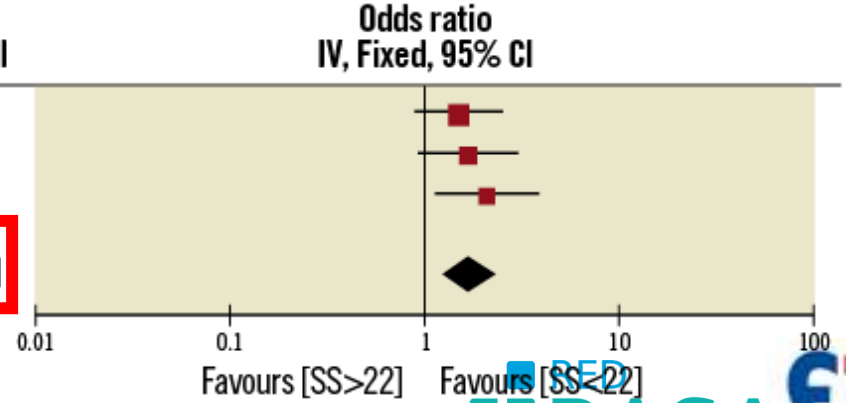
Heterogeneity: Tau²=0.22; Chi²=14.97, df=4 (*p*=0.005); I²=73%
Test for overall effect: Z=0.82 (*p*=0.41)



However, CAD complexity seems to matter - SYNTAX Score >22 showed higher one-year mortality

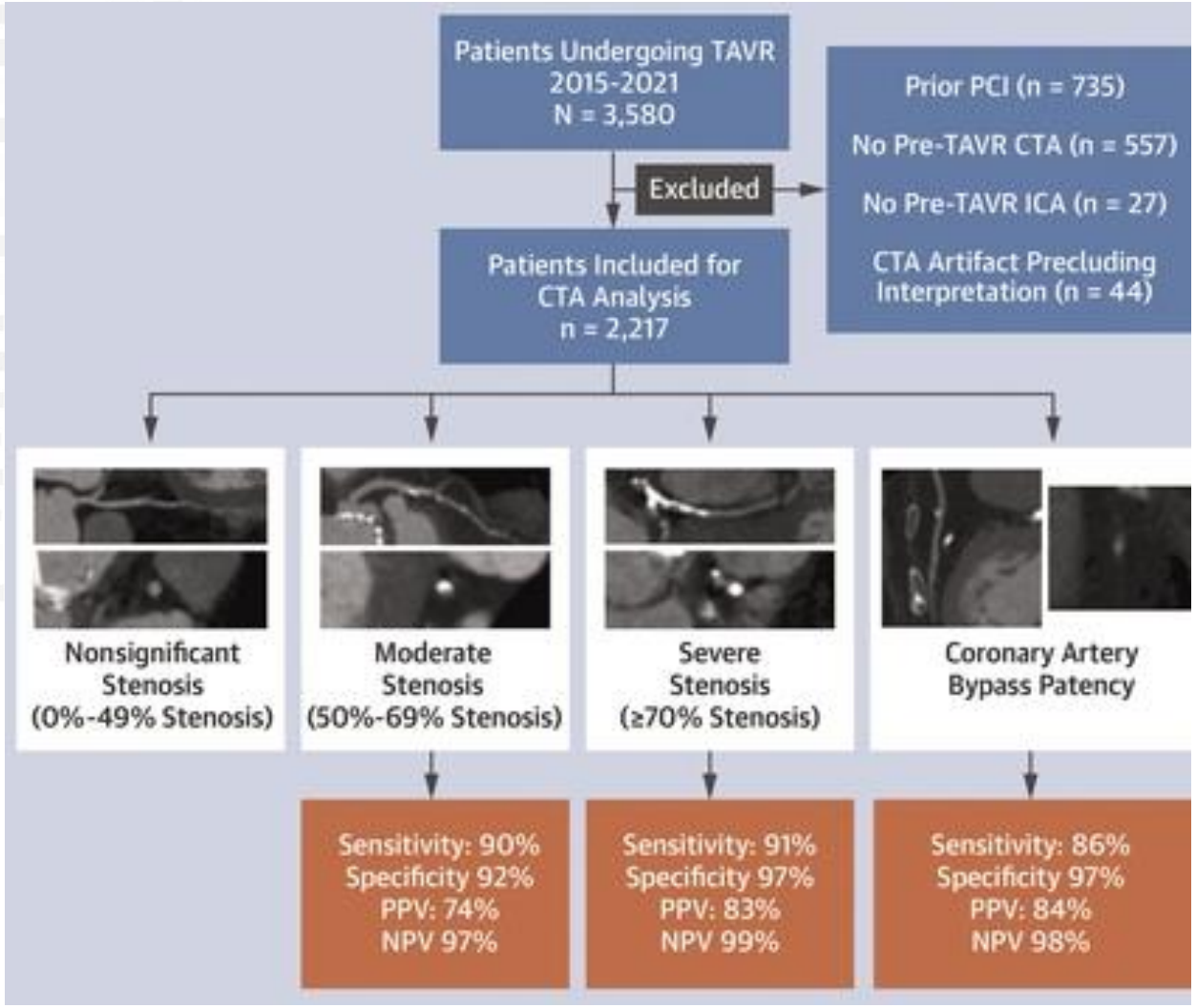
Study or Subgroup	log[Odds ratio]	SE	Weight	Odds ratio IV, Fixed, 95% CI
Shamekhi et al, 2017	0.4055	0.2606	40.3%	1.50 [0.90, 2.50]
Stefanini et al, 2014	0.5188	0.2963	31.1%	1.68 [0.94, 3.00]
Witberg et al, 2017	0.7372	0.3093	28.6%	2.09 [1.14, 3.83]
Total (95% CI)			**100.0%**	**1.71 [1.24, 2.36]**

Heterogeneity: Chi²=0.68, df=2 (*p*=0.71); I²=0%
Test for overall effect: Z=3.24 (*p*=0.001)



D'Ascenzo F, et al. EuroIntervention. 2018 Dec 7;14(11):e1169-e1177

Effectiveness of Pre-TAVR CTA as a Screening Tool for Significant CAD Before TAVR



- 2217 Ptes undergoing TAVR at Cleveland Clinic with a preprocedural CTA and invasive coronary angiography (ICA), and no prior percutaneous intervention, were identified from 2015 to 2021.
- CTA is an effective screening tool for significant proximal CAD prior to TAVR and could have spared **51.8%** of patients invasive testing prior to procedure.
- **Pre-TAVR CTA has a high NPV for high-grade proximal stenosis of each coronary artery. As a result, CTA can be used as a screening tool to rule out significant proximal CAD in patients undergoing TAVR**

Nicholas P. Kondoleon et al. *J Am Coll Cardiol Intv* 2023; 16:1990-2000.

Feasibility of TAVR-CTA for Evaluating Obstructive Coronary Artery Disease Before TAVR

Conclusions: TAVR-CTA, used as a gatekeeper for invasive coronary angiography (ICA) before TAVR resulted in a similar 1-year revascularization rate compared to routine ICA, allowing ICA to be skipped in 53% of cases

POPULATION

TAVR-CTA Evaluation & Selected Referral for Angiography

Routine Invasive Angiography

Revascularization Rate Within 1 Year After TAVR is low

0.8%

p=0.158

1.8%

53%

Had no Obstructive CAD by TAVR-CTA

Invasive Angiography was skipped

Factors Associated with the Need for Invasive Angiography ($p<0.001$)

- **Prior Coronary Stent**
- **High Coronary Calcium Score**

Phichaphop A, et al. Circ Cardiovasc Interv. 2025; 18:e0015181.

2025 ESC Valvular Guidelines: CAD and AS

2021 ESC Guidelines

2025 ESC Guidelines

Recommendations in 2021 version	Class	Level	Recommendations in 2025 version	Class	Level
Management of coronary artery disease in patients with valvular heart disease					
CCTA should be considered as an alternative to coronary angiography before valve surgery in patients with severe VHD and low probability of CAD.	IIa	C	CCTA is recommended before valve intervention in patients with moderate or lower (≤50%) pre-test likelihood of obstructive CAD.	I	B
Coronary angiography is recommended before valve surgery in patients with severe VHD and any of the following: • History of cardiovascular disease • Suspected myocardial ischaemia • LV systolic dysfunction • In men >40 years of age and post-menopausal women • One or more cardiovascular risk factors.	I	C	Invasive coronary angiography is recommended before valve intervention in patients with high and very high (>50%) pre-test likelihood of obstructive CAD.	I	C

Praz F et al. Eur Heart J. 2025 Aug 29:ehaf194.

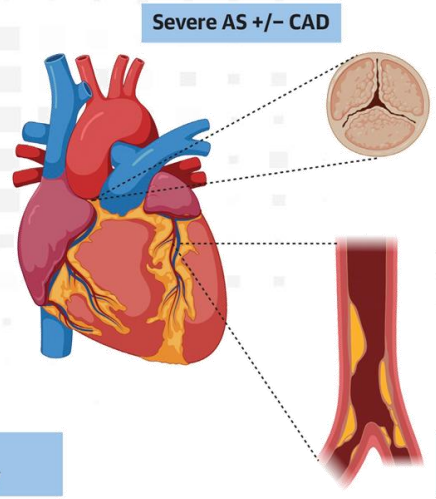
2025 ESC Valvular Guidelines: CAD and AS

Recommendations	Class	Level
Diagnosis of coronary artery disease		
Omission of invasive coronary angiography should be considered in TAVI candidates, if procedural planning CCTA is of sufficient quality to rule out significant CAD.	IIa	B
PCI should be considered in patients with a primary indication to undergo TAVI and ≥90% coronary artery stenosis in segments with a reference diameter ≥2.5 mm.	IIa	B

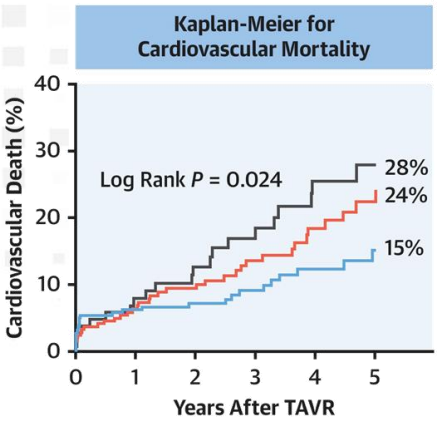
Praz F et al. Eur Heart J. 2025 Aug 29:ehaf194.

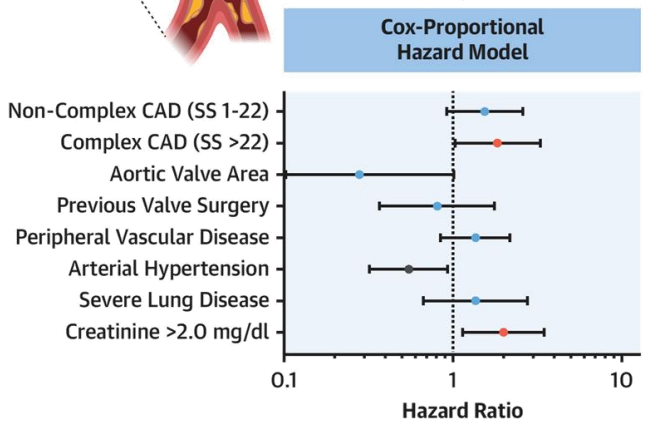
The Effect of Coronary Lesion Complexity and Preprocedural Revascularization on 5-Year Outcomes After TAVR

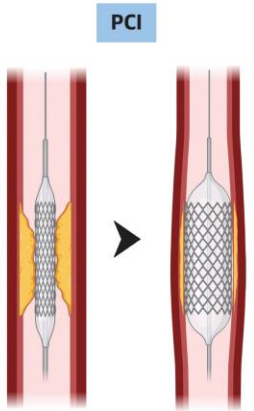
604 Ptes

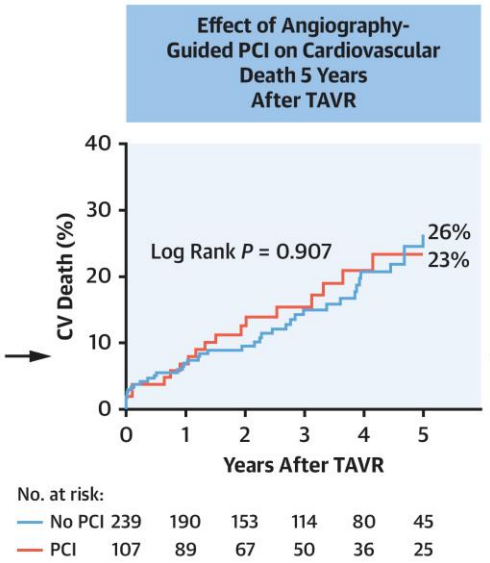


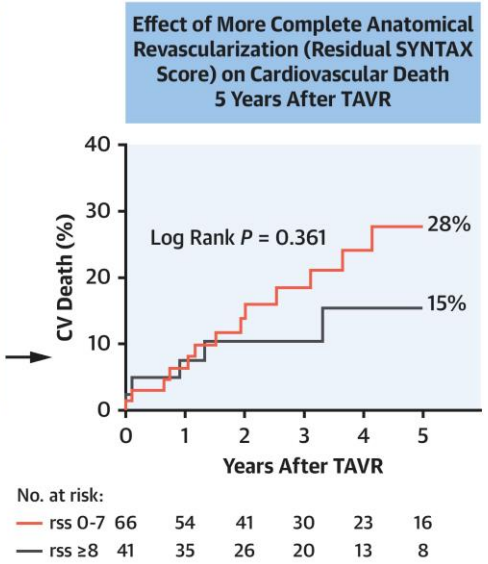
Effect of coronary artery disease complexity (SYNTAX score) on cardiovascular mortality 5 years after TAVR











- The presence of CAD and its anatomical complexity in Ptes undergoing TAVR are associated with significantly worse 5-year outcomes.
- However, angiography-guided PCI did not improve outcomes, highlighting the need for further research into physiology-guided PCI.

Lennert Minten et al. *J Am Coll Cardiol Intv* 2022; 15:1611-1620.

Advantages and disadvantages of different PCI timing in patients undergoing TAVI.

	PCI before TAVI	PCI after TAVI	Combined PCI and TAVI
Advantages	- Easier coronary access (especially for self-expanding THV with a supra-annular leaflet position) - Lower risk of ischaemia-induced haemodynamic instability (i.e., during rapid pacing) - Reduced contrast use compared with concomitant PCI and TAVI	- More reliable FFR/iFR of intermediate lesions - Lower risk of haemodynamic instability during complex PCI (i.e., with rotational atherectomy and impaired LV function) - Reduced contrast use compared with concomitant PCI and TAVI	- Use of the same arterial access - Lower cost
Disadvantages	- Less reliable FFR/iFR assessments of borderline lesions - Higher risk of haemodynamic instability due to AS	- More challenging and potentially compromised coronary access - Less stability and support of the coronary guiding catheter - Potential THV dislodgement	- Larger amount of contrast and higher risk of AKI - Prolonged procedure - Need for DAPT at the time of TAVI, hence increased bleeding risk

AS: aortic stenosis; AKI: acute kidney injury; DAPT: dual antiplatelet therapy; FFR: fractional flow reserve; iFR: instantaneous wave-free ratio; LV: left ventricular; PCI: percutaneous coronary intervention; TAVI: transcatheter aortic valve implantation; THV: transcatheter heart valve

PCI before TAVR

1) >70% proximal (LAD - FRANCE 2)
2) ACS
3) Angina
4) >90% lesions

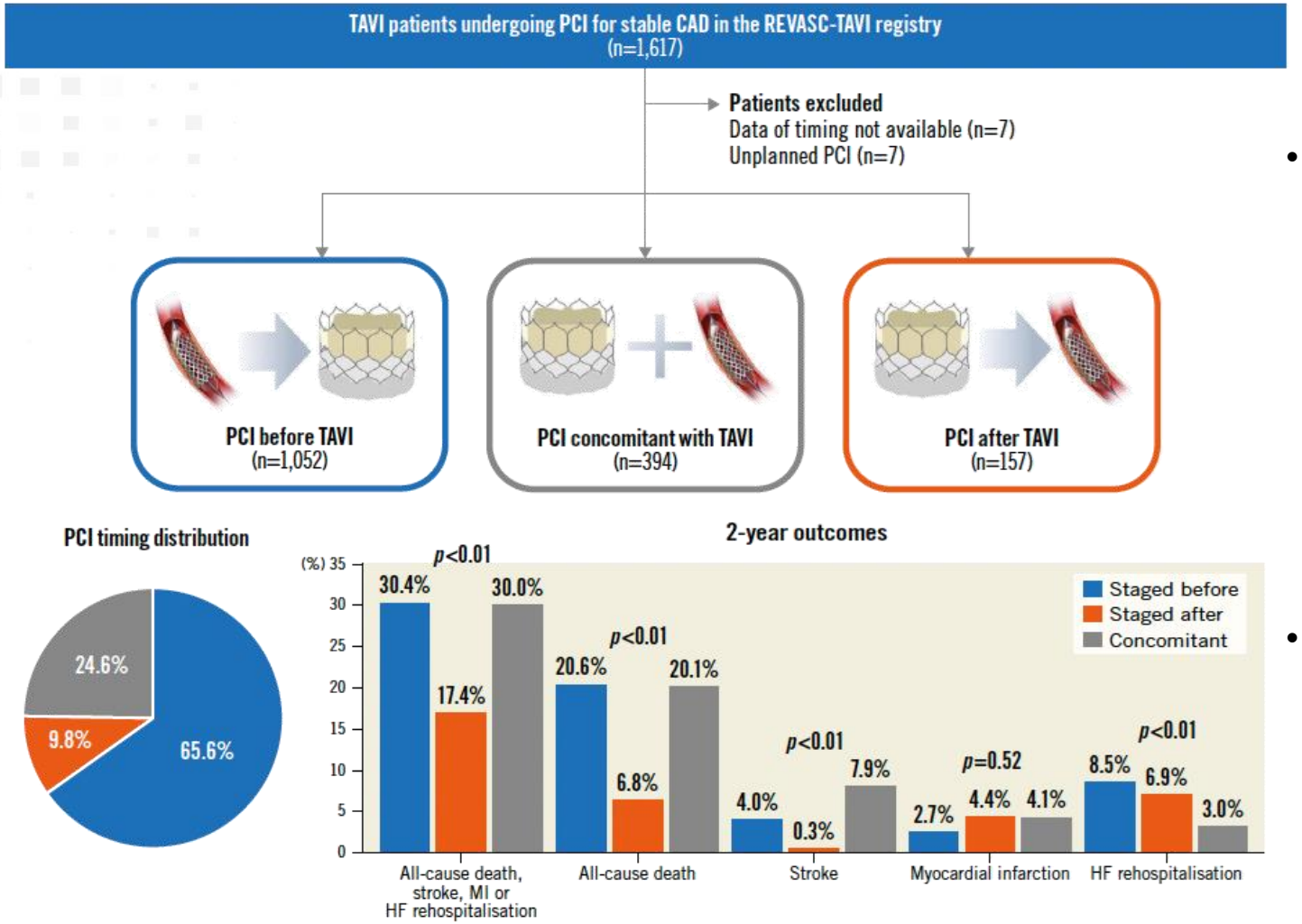
PCI after TAVR

THV choice and implantation technique should be aimed at preserving coronary access

Tarantini G et al. EuroIntervention. 2023 May 15;19(1):37-52.

Outcomes of patients undergoing TAVI and PCI for stable coronary artery disease from the international, multicentre REVASC-TAVI REGISTRY.

- 66% of patients underwent PCI before TAVR
- 25% underwent PCI concomitant with TAVR



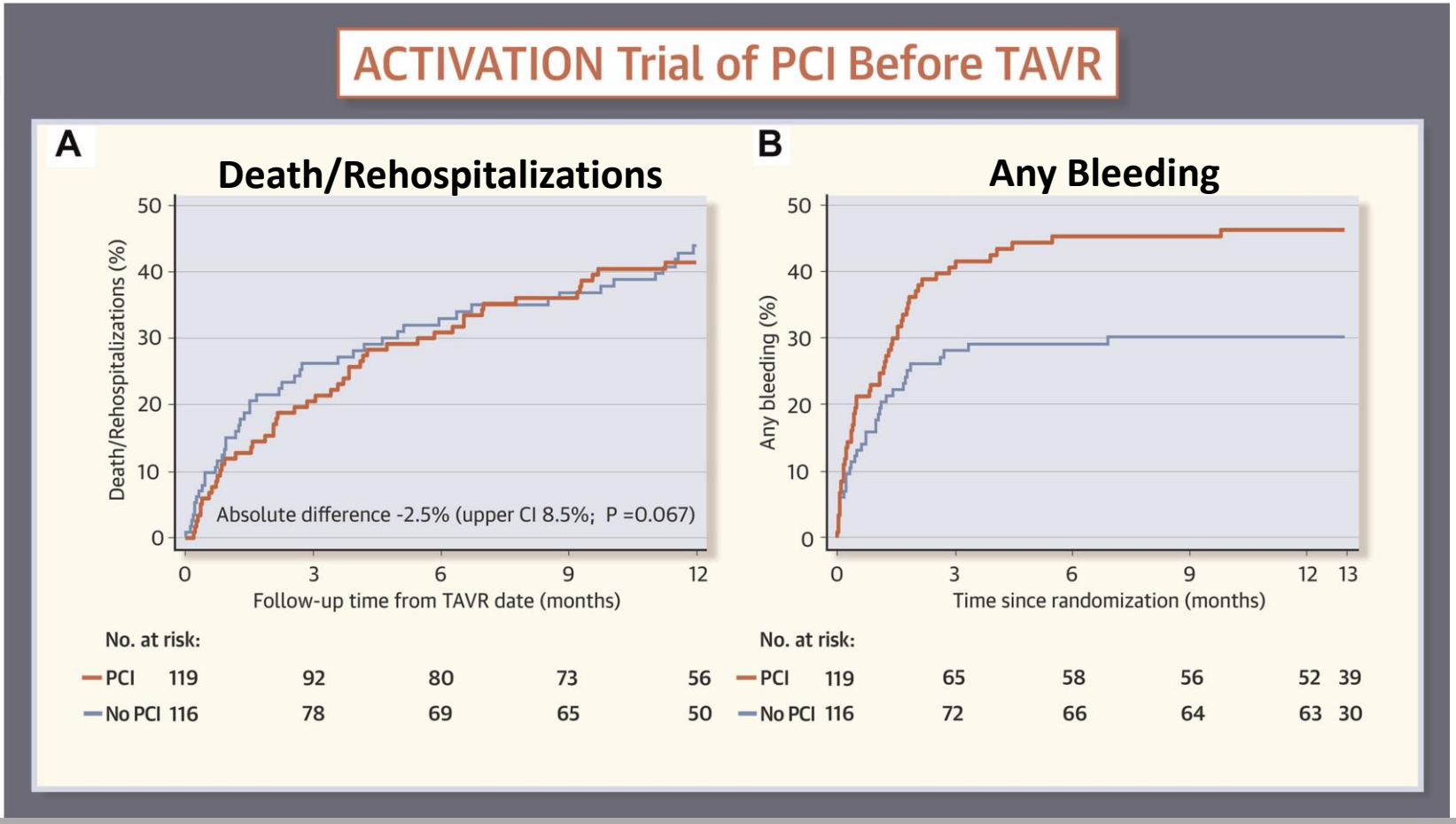
CAD: coronary artery disease; HF: heart failure; MI: myocardial infarction; PCI: percutaneous coronary intervention; TAVI: transcatheter aortic valve implantation

- **Conclusions:** In patients with severe AS and stable coronary artery disease scheduled for TAVI, performance of PCI after TAVI seems to be associated with improved 2-year clinical outcomes compared with other revascularisation timing strategies.
- These results need to be confirmed in randomised clinical trials

Rheude T et al. EuroIntervention. 2023 Sep 18;19(7):589-599

ACTIVATION (PercutAneous Coronary inTervention prIor to transcatheter aortic VAlve implantaTION): A Randomized Clinical Trial

- Patients (n=235) with severe symptomatic AS and significant CAD with Canadian Cardiovascular Society class ≤2 angina were randomly assigned to **receive PCI** or **no PCI** prior to TAVR at 17 centers



Conclusions

Observed rates of death and rehospitalization at 1 year were similar between PCI and no PCI prior to TAVR; however, the noninferiority margin was not met, and PCI resulted in a higher incidence of bleeding

Patterson T et al. JACC Cardiovasc Interv. 2021 Sep 27;14(18):1965-1974.

PCI in Ptes undergoing TAVI; NOTION 3 Trial

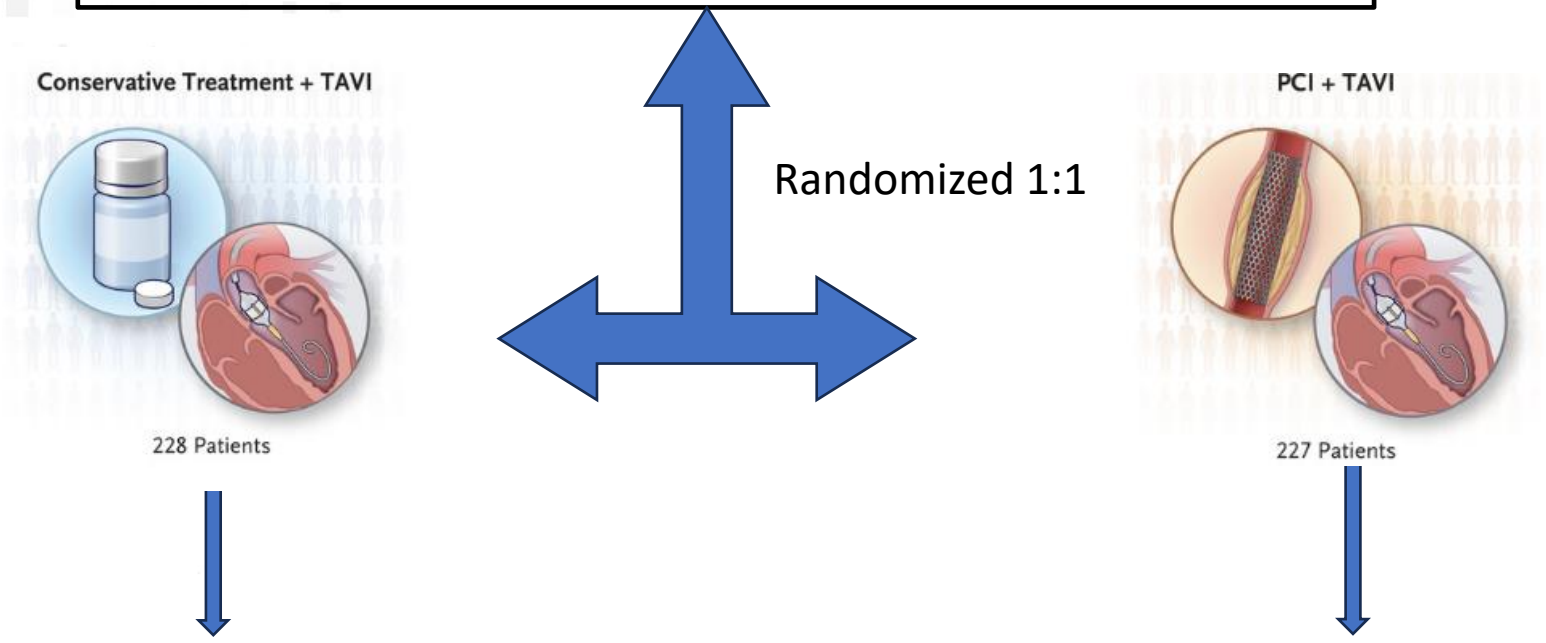
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

PCI in Patients Undergoing Transcatheter Aortic-Valve Implantation

J. Lønborg, R. Jabbari, M. Sabbah, K.T. Veien, M. Niemelä, P. Freeman, R. Linder, D. Ioanes, C.J. Terkelsen, O.A. Kajander, S. Koul, M. Savontaus, P. Karjalainen, A. Erglis, M. Minkkinen, R. Sørensen, H.-H. Tilsted, L. Holmvang, G. Bieliauskas, J. Ellert, J. Piuhola, A. Eftekhari, O. Angerås, A. Rück, E.H. Christiansen, T. Jørgensen, B.T. Özbek, C. Glinge, L. Søndergaard, O. De Backer, and T. Engstrøm, for the NOTION-3 Study Group*

Severe AS undergoing TAVI and CAD with at least one coronary-artery stenosis with a fractional flow reserve of 0.80 or less or a diameter stenosis of at least 90%



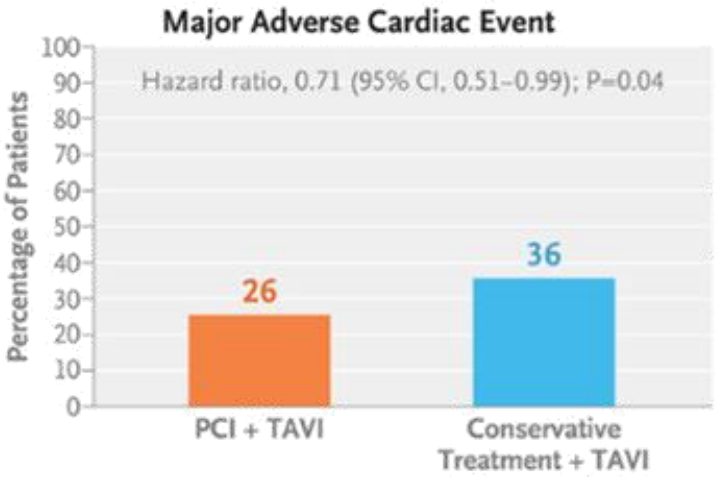
Primary end Point: MACE at 1 year Follow-Up

Lonborg J et al., N Engl J Med. 2024 Dec 12;391(23):2189-2200.

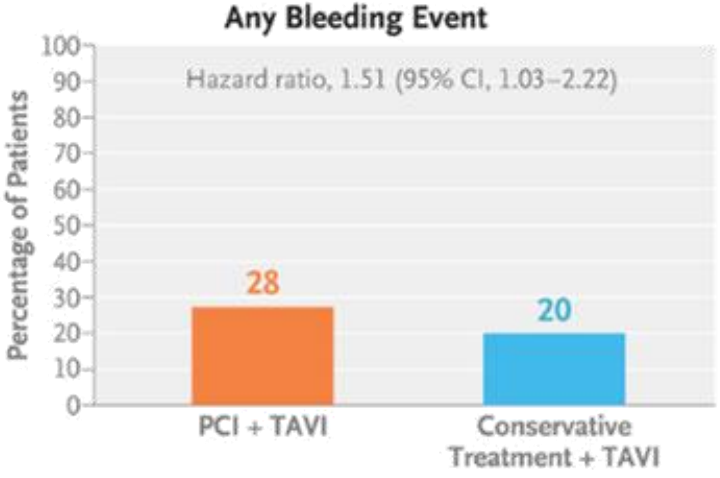
PCI in Ptes undergoing TAVI; NOTION 3 Trial

RESULTS

At a median follow-up of 2 years, a major adverse cardiac event had occurred in significantly fewer patients in the PCI group than in the conservative-treatment group.



Bleeding events occurred more often in the PCI group than in the conservative-treatment group.



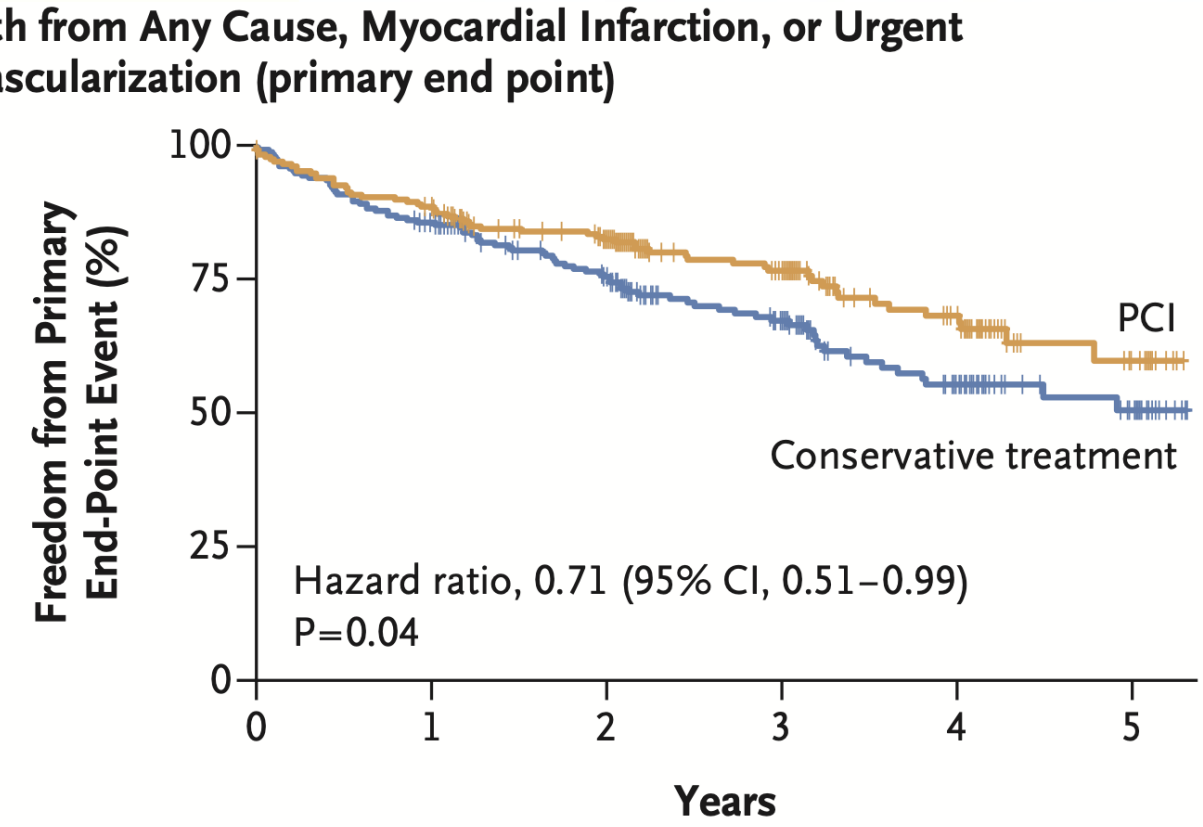
COMPLICATIONS RELATED TO PCI

In the PCI group, 7 patients (3% had a complication related to the PCI procedure.

Lonborg J et al., N Engl J Med. 2024 Dec 12;391(23):2189-2200.

PCI in Ptes undergoing TAVI; NOTION 3 Trial

Primary Outcome

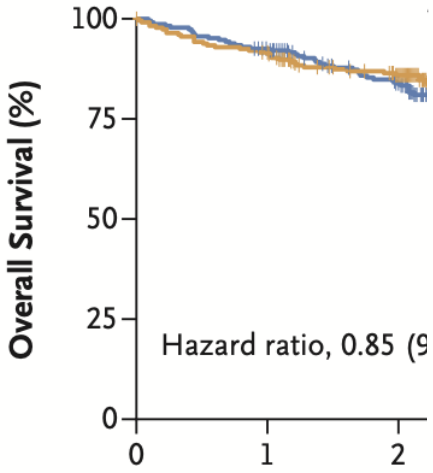


No. at Risk						
PCI	227	199	161	109	58	14
Conservative treatment	228	191	148	91	46	18

Lonborg J et al., N Engl J Med. 2024 Dec 12;391(23):2189-2200.

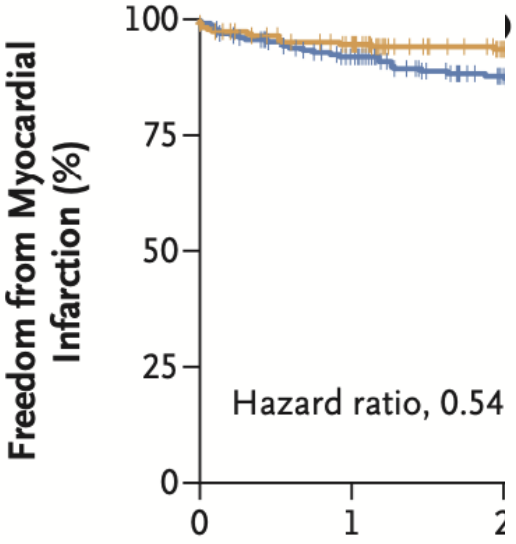
NOTION 3 Trial – Secondary Outcomes

Death from Any Cause



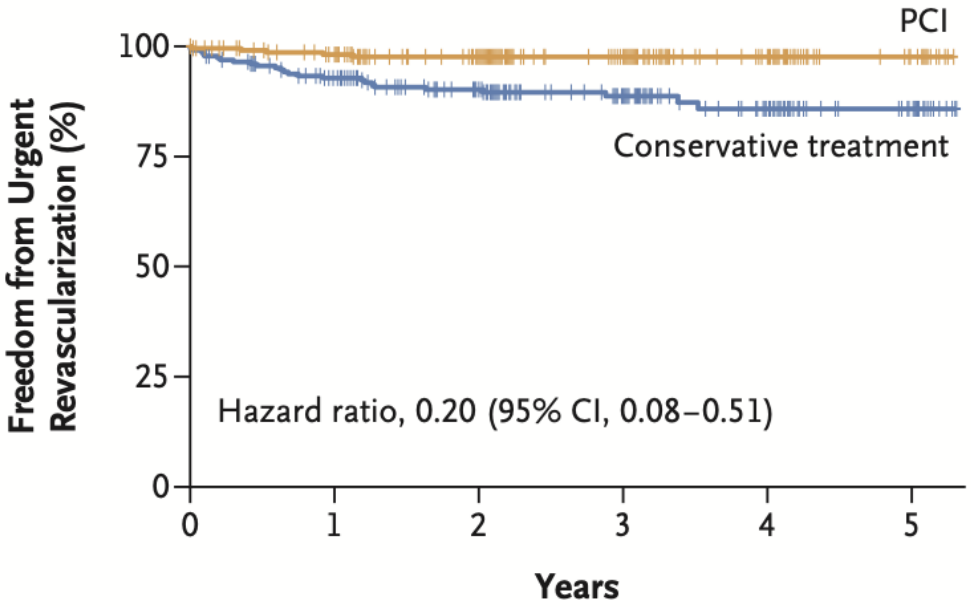
No. at Risk			
PCI	227	206	168
Conservative treatment	228	207	166

Myocardial Infarction



No. at Risk			
PCI	227	199	16
Conservative treatment	228	193	15

Urgent Revascularization

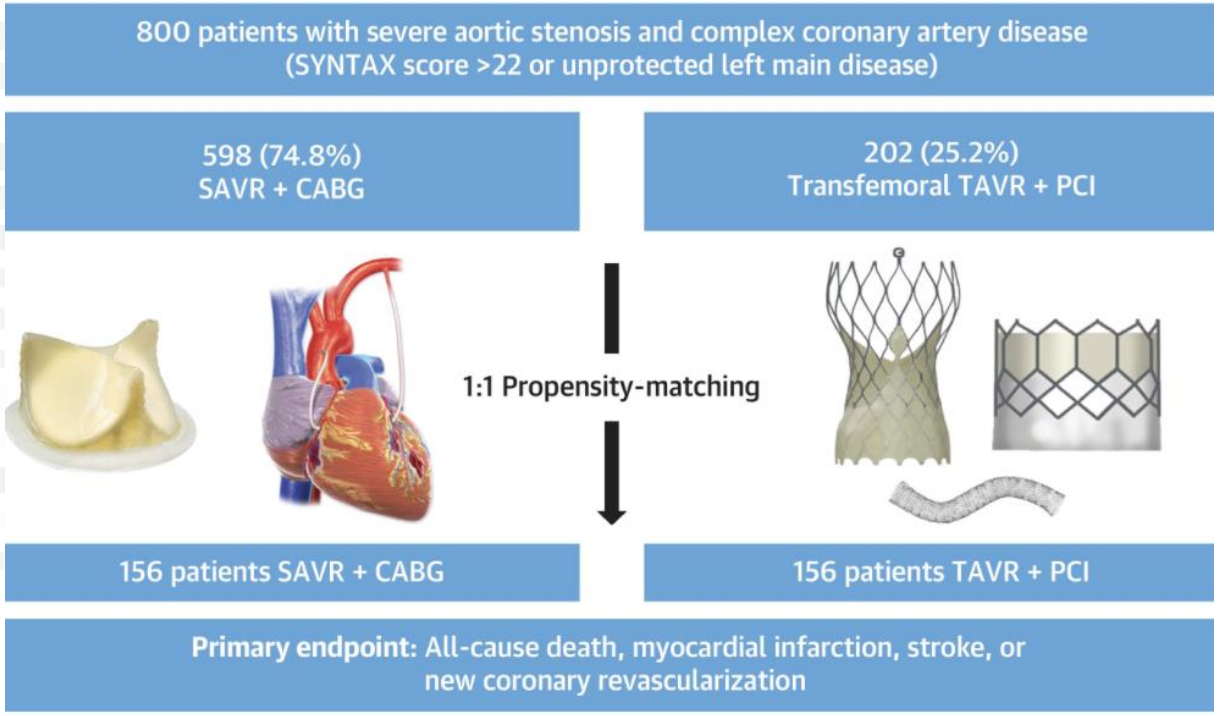


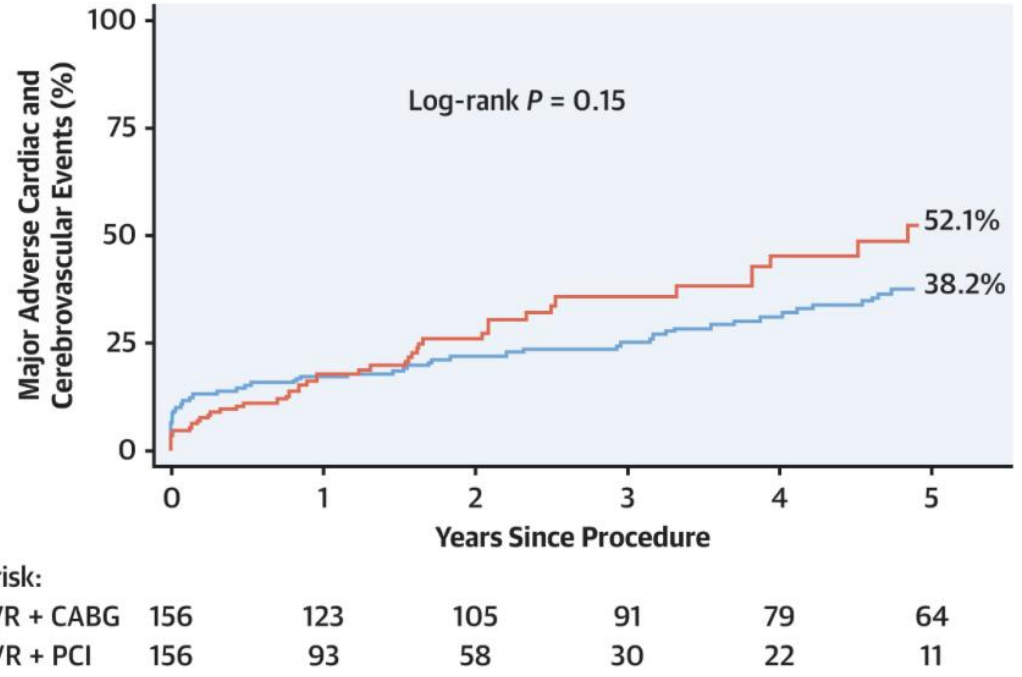
No. at Risk						
PCI	227	202	164	112	59	15
Conservative treatment	228	195	153	94	48	19

Lonborg J et al., N Engl J Med. 2024 Dec 12;391(23):2189-2200.

Transcatheter Versus Surgical Aortic Valve Replacement in Patients With Complex Coronary Artery Disease

800 patients (598 undergoing SAVR + CABG and 202 undergoing transfemoral TAVR + PCI) were included. A 1:1 propensity-matched analysis was performed





In Ptess with severe AS and complex CAD, TAVR + PCI and SAVR + CABG were associated with similar rates of MACCE after a median follow-up period of 3 years, but TAVR + PCI recipients exhibited a higher risk for repeat coronary revascularization

Alperi, A. et al. J Am Coll Cardiol Intv. 2021;14(22):2490-2499.

THE LANCET

TransCatheter aortic valve implantation and fractional flow reserve-guided percutaneous coronary intervention versus conventional surgical aortic valve replacement and coronary bypass grafting for treatment of patients with aortic valve stenosis and complex or multivessel coronary disease (TCW): an international, multicentre, prospective, open-label, non-inferiority, randomised controlled trial

*Elvin Kedhi, Renicus S Hermanides, Jan-Henk E Dambrink, Sandeep K Singh, Jurriën M Ten Berg, DirkJan van Ginkel, Martin Hudec, Giovanni Amoroso, Ignacio J Amat-Santos, Martin Andreas, Rui Campante Teles, Guillaume Bonnet, Eric Van Belle, Lenard Conradi, Leen van Garsse, Wojtek Wojakowski, Vassilis Voudris, Jerzy Sacha, Pavel Cervinka, Erik Lipsic, Samer Somi, Luis Nombela-Franco, Sonja Postma, Kerstin Piayda, Giuseppe De Luca, Evelien Kolkman, Krzysztof P Malinowski, Thomas Modine, on behalf of the TCW study group**

Kedhi, Elvin et al. The Lancet 2024, Volume 404, Issue 10471, 2593 - 2602

PATIENTS HAD COMPLEX CAD!!

TCW Trial Design

Coronary Disease:

- **≥ 2 *de novo coronary lesions*** of ***DS ≥ 50%*** located in any of native coronary arteries ≥ 2 mm
- single ***LAD lesion ≥20 mm length*** *or* ***involving a bifurcation***

Patients **≥70 years**
with ***severe AS and ≥2VD or complex LAD***
Heart Team discussion

Baseline

Experimental arm (n=164):
FFR-guided PCI & TAVI
PCI for all lesions FFR≤0.80

1:1

Comparative arm (n=164):
CABG & SAVR

Follow up 30 days

Evaluation of angina symptoms:
Patients with persisting angina with known FFR ≤ 0.85 can undergo PCI if FFR ≤ 0.80 at FU

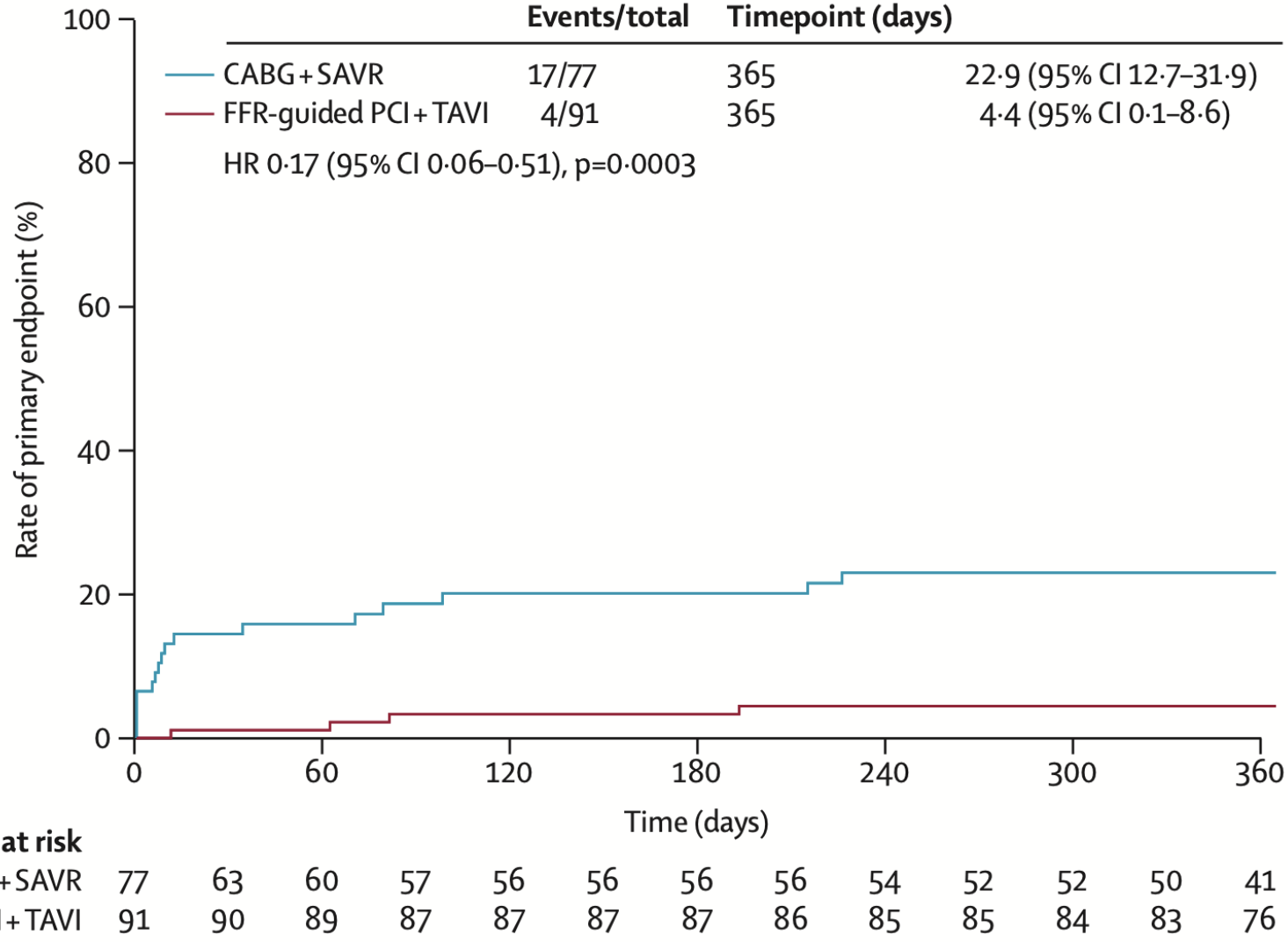
Follow up 12 months

Primary endpoint: **A composite of all-cause mortality, myocardial infarction, disabling stroke, unscheduled clinically-driven target vessel revascularization, valve re-intervention, and life threatening or disabling bleeding**

Trial prematurely halted by the DSMB (after 50% enrolment) due to significant difference between the two treatment arms.

Kedhi, Elvin et al. The Lancet 2024, Volume 404, Issue 10471, 2593 - 2602

Primary Endpoint: Composite of all-cause mortality, MI, stroke, TVR, valve reintervention, and life-threatening bleeding.



Kedhi, Elvin et al. The Lancet, Volume 404, Issue 10471, 2593 - 2602

TCW Trial: Secondary Outcomes at 1 Year

	FFR-Guided PCI + TAVI (n= 91)	SAVR+CABG (n= 77)	HR (95% CI)	P value
Death – all cause	0 (0)	7 (9.74)		***0.002***
Death - cardiovascular	0 (0)	6 (8.35)		***0.005***
All Stroke and TIA	1 (1.11)	3 (4.20)	0.25 (0.03-2.45)	0.20
Disabling stroke	1 (1.11)	2 (2.85)	0.38 (0.03-4.19)	0.41
Non-disabling stroke	0 (0)	0 (0)		
TIA	0 (0)	1 (1.35)		0.27
Myocardial infarction (any)	2 (2.21)	1 (1.30)	1.58 (0.14-17.48)	0.71
Periprocedural myocardial infarction	1 (1.10)	1 (1.30)	0.82 (0.05-13.18)	0.89
Spontaneous myocardial infarction	1 (1.11)	0 (0)		0.40

	FFR-Guided PCI + TAVI (n= 91)	SAVR +CABG (n= 77)	HR (95% CI)	P value
Any revascularization	0 (0)	1 (1.30)		0.28
CD-TVR	0 (0)	1 (1.30)		0.28
Valve reintervention	0 (0)	1 (1.30)		0.28
Life threatening or disabling bleeding (VARC-2)	2 (2.21)	9 (12.10)	0.17 (0.04-0.80)	***0.01***
Major bleeding (VARC-2)	5 (5.56)	7 (9.21)	0.57 (0.18-1.79)	0.32
Minor bleeding (VARC-2)	12 (13.27)	4 (5.40)	2.52 (0.81-7.81)	0.10
Permanent pacemaker implantation	9 (9.89)	2 (2.87)	3.74 (0.81-17.30)	0.07
Major Vascular Complication	4 (4.40)	1 (1.35)	3.36 (0.38-30.09)	0.25
Re-thoracotomy	0 (0)	4 (5.19)		***0.02***
Atrial Fibrillation	2 (2.20)	11 (13.05)	0.28 (0.09-0.88)	***0.03***

The TCW trial showed that FFR-guided PCI & TAVI as compared to CABG & SAVR was associated with significantly lower primary endpoint and mortality rates.

Presented by Dr Kedhi at EuroPCR 2024

Kedhi, Elvin et al. The Lancet 2024, Volume 404, Issue 10471, 2593 - 2602

What Do the Guidelines Tell Us?

2025 ESC/EACTS Guidelines for the management of valvular heart disease

Recommendations		
Invasive coronary angiography is recommended in the evaluation of CAD in patients with severe ventricular SMR.	I	C
PCI may be considered in patients with a primary indication to undergo transcatheter valve interventions and coronary artery stenosis ≥70% in proximal segments of main vessels.	IIb	B

Downgraded from IIa (2021 Guidelines)

2020 ACC/AHA Guideline for the Management of Valvular Heart Disease

COR	LOE	Recommendations
1	C-EO	1. In patients undergoing TAVI, 1) contrast-enhanced coronary CT angiography (in patients with a low pretest probability for CAD) or 2) an invasive coronary angiogram is recommended to assess coronary anatomy and guide revascularization.
2a	C-LD	2. In patients undergoing TAVI with significant left main or proximal CAD with or without angina, revascularization by PCI before TAVI is reasonable.[1,2]
2a	C-LD	3. In patients with significant AS and significant CAD (luminal reduction >70% diameter, fractional flow reserve <0.8, instantaneous wave-free ratio <0.89) consisting of complex bifurcation left main and/or multivessel CAD with a SYNTAX (Synergy Between Percutaneous Coronary Intervention With Taxus and Cardiac Surgery) score >33, SAVR and CABG are reasonable and preferred over TAVI and PCI.[3,4]

Ongoing trials will impact future guidelines!

Praz F et al. Eur Heart J. 2025 Aug 29:ehaf194; Otto CM et al. Circulation. 2021 Feb 2;143(5):e35-e71.

Ongoing Trials

COMPLETE TAVR Trial: Study Completion Expected in 2026!

SYMPTOMATIC AS PATIENTS with at least 1 coronary artery lesion in a native segment that is **≥ 2.5 mm** in diameter with a **≥ 70%** visual angiographic* stenosis AND Heart Team Consensus they are suitable for transfemoral TAVR and would receive a bypass if they were undergoing elective SAVR

*CT, Echo, Hemodynamic, and Angiographic Core Labs

COMPLETE TAVR

SUCCESSFUL TF TAVR WITH A BALLOON EXPANDABLE THV
STANDARDIZED INVASIVE HEMODYNAMICS (SIH) WITH ON-TABLE TTE

RANDOMIZATION within 96 hours
and Stratified for Intended Timing of PCI and Requirement for OAC:

COMPLETE REVASCULARIZATION	**MEDICAL THERAPY**
Staged PCI of all lesions (1 – 45 days post TAVR)	Guideline-directed medical therapy alone
Goal of complete revascularization of all qualifying lesions	No revascularization
N=2000	N=2000

Antithrombotic Therapy

DAPT for 1-6 months (ASA + clopidogrel preferred), then SAPT lifelong (ASA preferred)	SAPT lifelong (ASA preferred)

If Requirement for OAC (usually AF)

Guideline-directed DOAC† + SAPT for 1-6 months then guideline-directed DOAC therapy alone lifelong	Guideline-directed DOAC therapy† lifelong

†See supplementary antithrombotic guidance document

MEDIAN FOLLOW-UP: 3.5 YEARS
(REPEAT SIH WITH ON-TABLE TTE IF ≥ MODERATE VARC-3 HEMODYNAMIC VALVE DETERIORATION **OR** MG ≥ 20 MMHG ON ANY FOLLOW-UP TTE > 1 MONTH POST TAVR

PRIMARY OUTCOME: Composite of CV Death, New MI, Ischemia-Driven Revascularization, or Hospitalization for Unstable Angina or for Heart Failure
KEY SECONDARY OUTCOMES: CV death or new MI, transaortic gradient post TAVR (echocardiographically-derived vs. direct invasive measurement)
SECONDARY OUTCOMES: Hemodynamic variables obtained with SIH and TTE, Each component of the primary outcome, Angina Status, All-cause Mortality, Stroke, Cost-effectiveness, QOL, Bleeding, Contrast Associated Acute Kidney Injury, Fluoroscopic Time/Contrast Utilization for Staged PCI

PCI Before Vs. After TAVI: TAVI PCI Trial

Ongoing

Patients with severe aortic stenosis and concomitant coronary artery disease scheduled for TAVI and PCI based on a multidisciplinary Heart Team decision

1:1 randomization

Group 1	Group 2
Angiography-guided complete revascularization	TAVI
↓ 1-45 days	↓ 1-45 days
TAVI	Angiography-guided complete revascularization

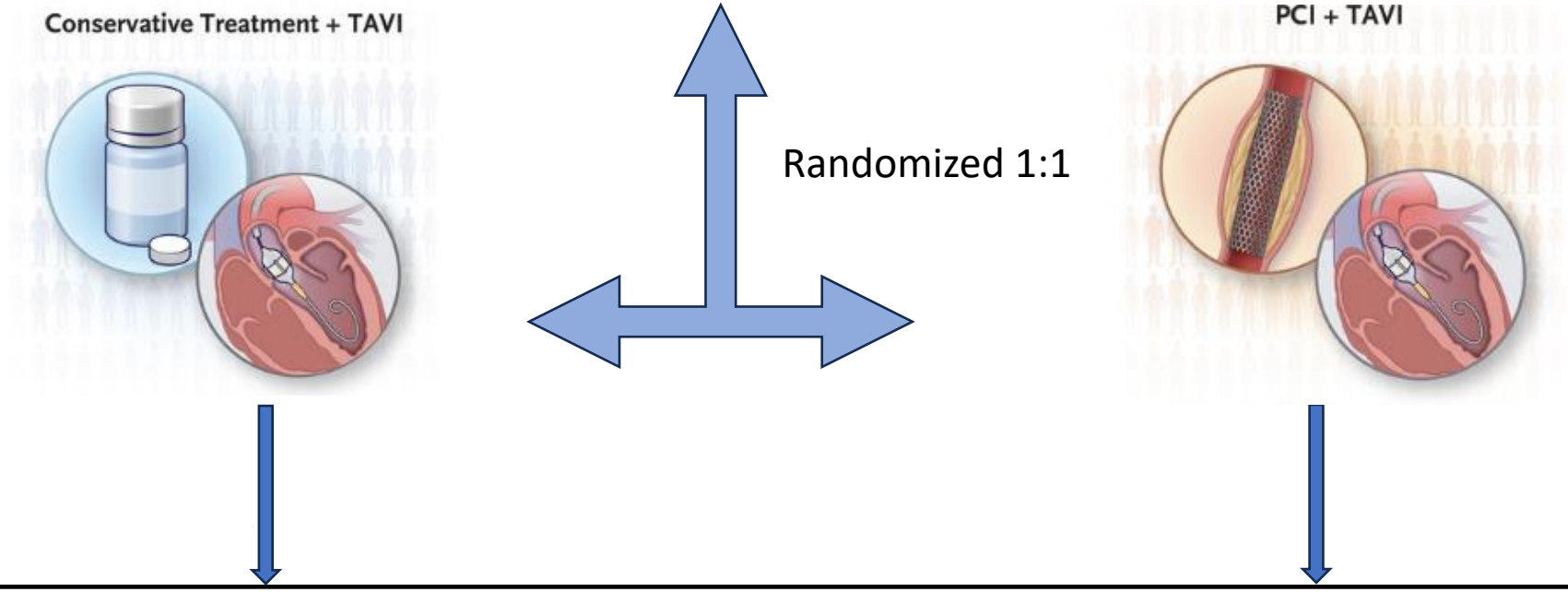
Primary endpoint: all-cause death, non-fatal myocardial infarction, ischemia-driven revascularization, rehospitalization, and life-threatening/disabling or major bleeding at 1 year

Stahli B et al. Am Heart J. 2024 Nov;277:104-113.

Deferral of routine percutaneous coronaryintervention in patients undergoing TAVI: Rationale and design of the PRO-TAVI trial

- A total of 466 Ptes undergoing TAVI will be randomized in a 1:1 ratio to PCI or no PCI . Concomitant CAD is defined as at least 1 stenosis of 70% to 99%, or at least 1 stenosis between 40% and 70% combined with positive physiological measurement in a coronary artery with a minimal diameter of 2.5 mm or bypass graft.

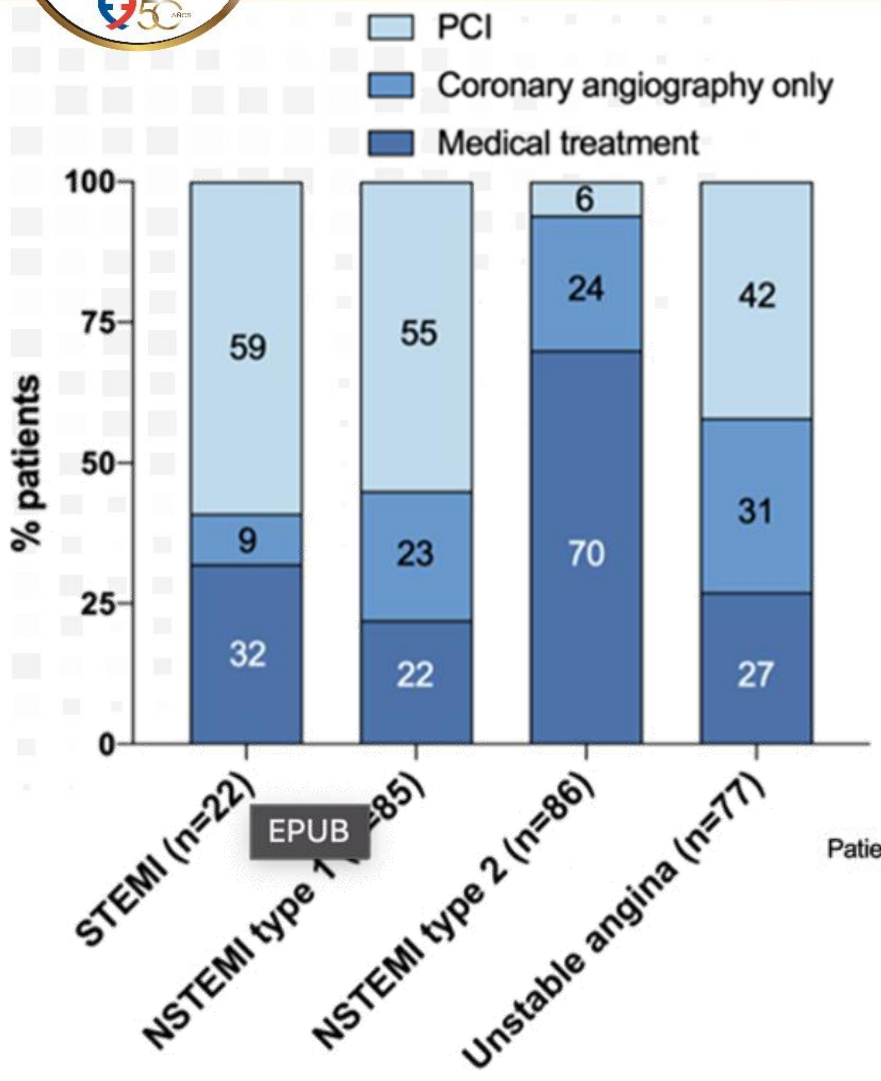
Ongoing

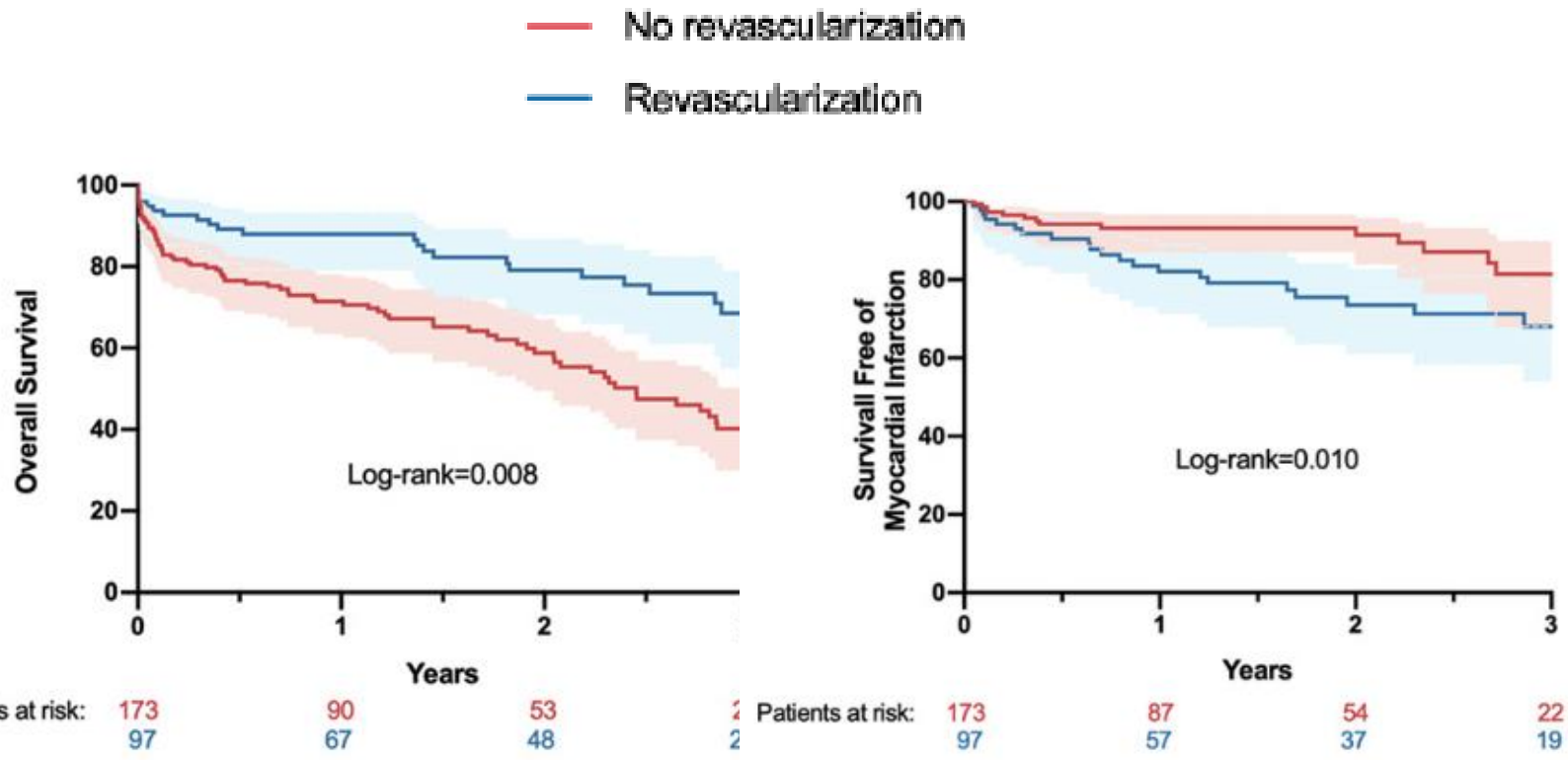


The primary endpoint: MACEor type 2 - 4 bleeding at 12 months after randomization, in accordance with VARC3 criteria. Secondary endpoints include the individual components of the primary endpoint, revascularization, quality of life and cost-effectiveness

Hugo M. Aarts, et al. Am Heart J 2025;281:133–139.)

Acute Coronary Syndrome Following TAVR

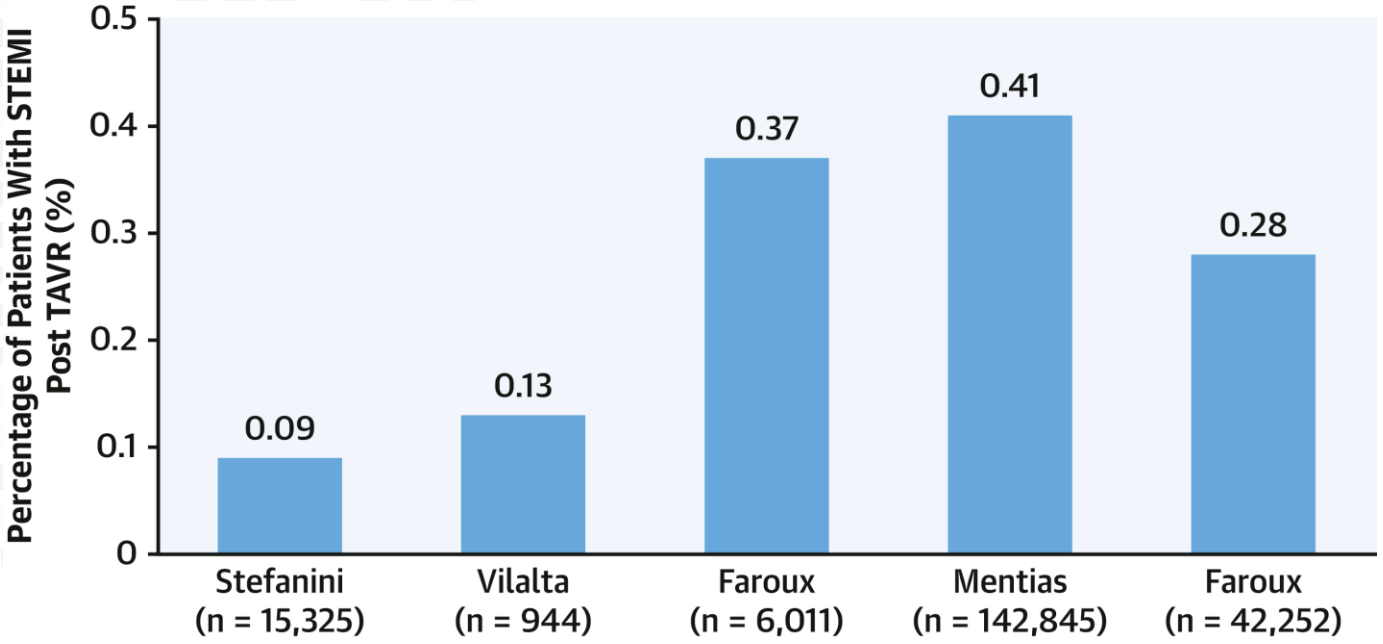




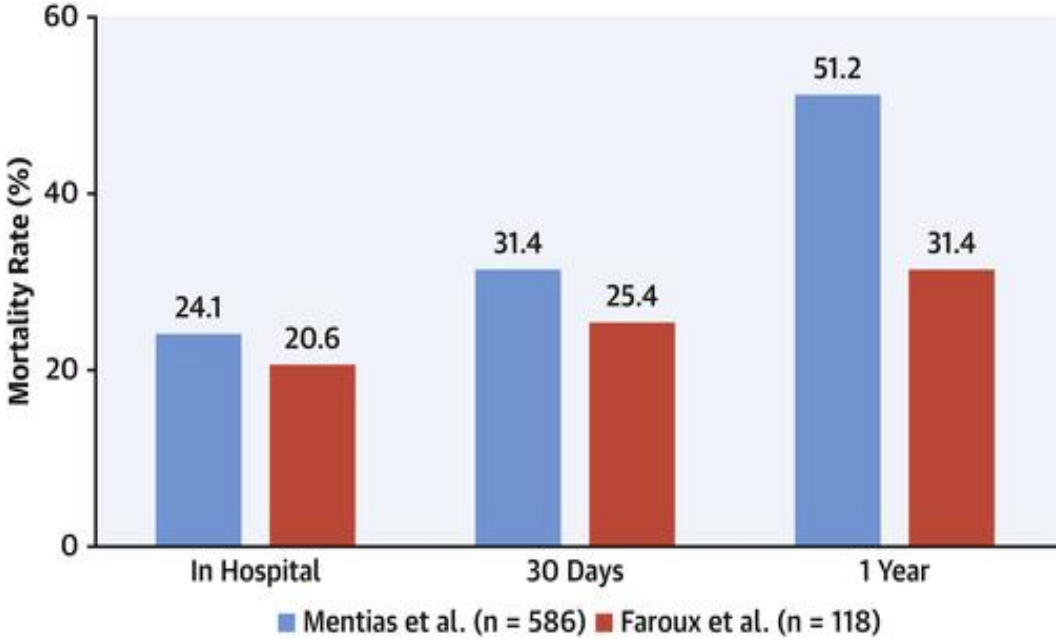
Faroux L, et al. Circ Cardiovasc Interv. 2020;13:e008620. DOI: 10.1161/CIRCINTERVENTIONS.119.008620

STEMI Following TAVR

Incidence

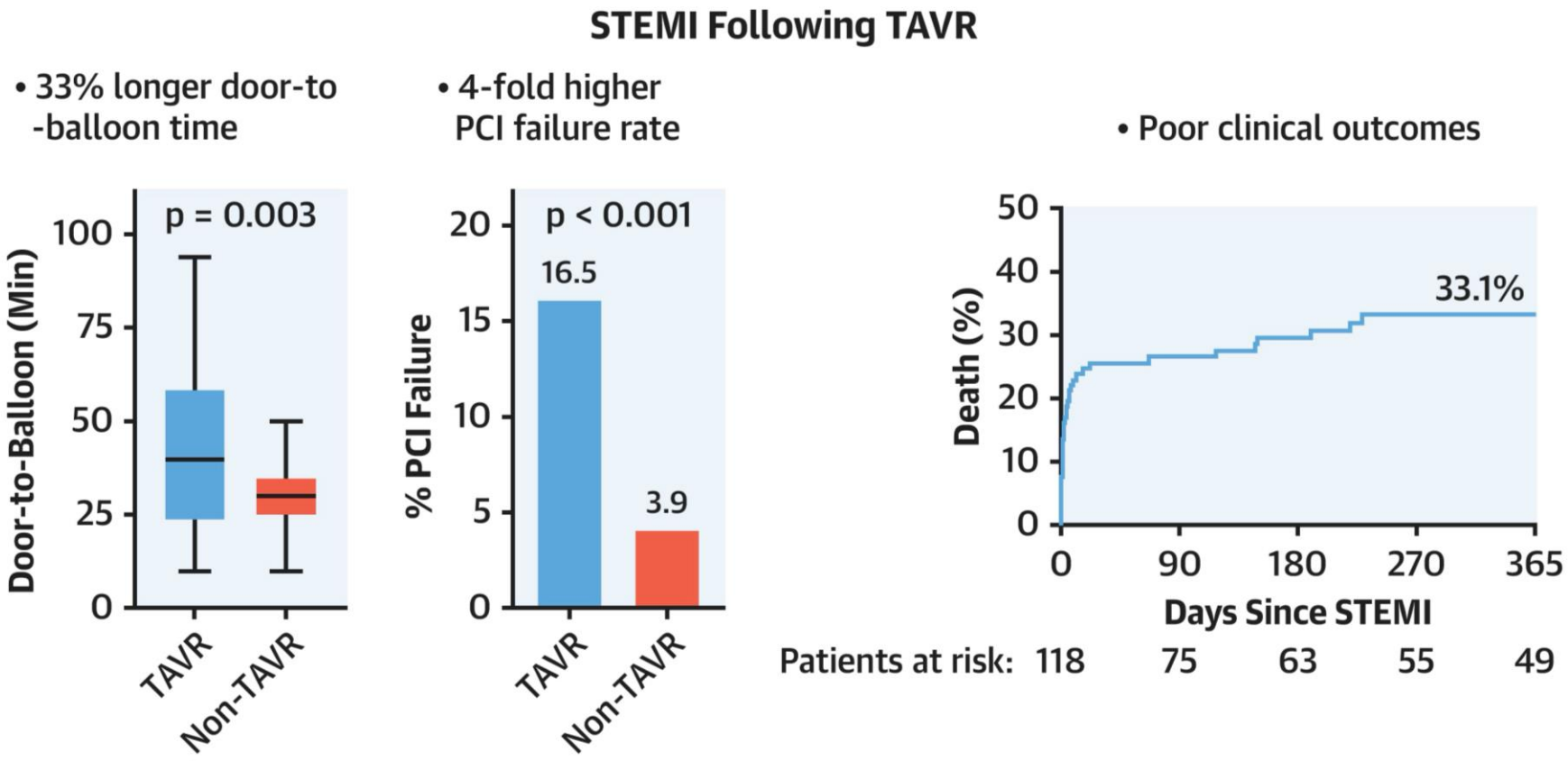


Mortality



Luis Gruberg et al. *JACC* 2021; 77:2200-2203.

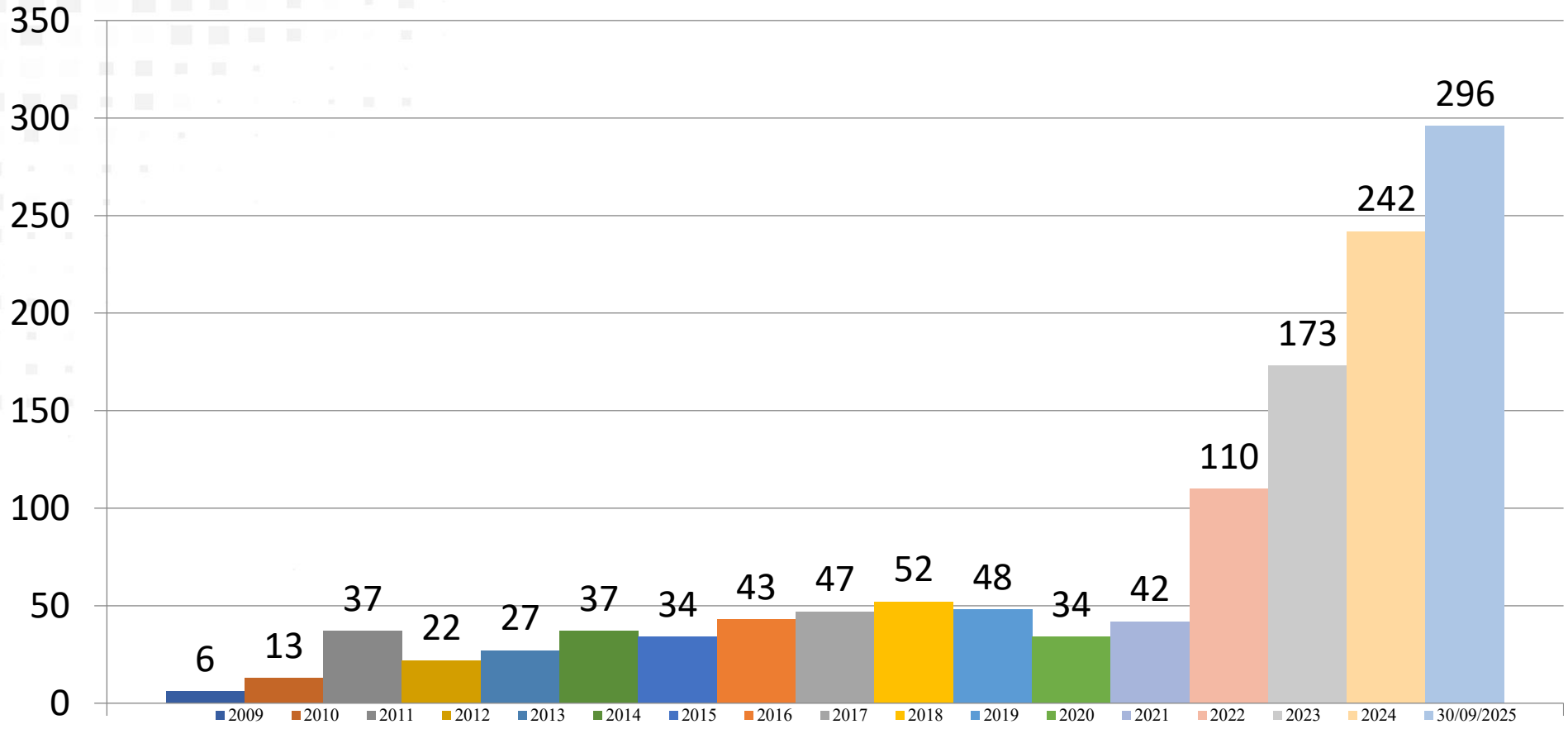
ST-Segment Elevation Myocardial Infarction Following Transcatheter Aortic Valve Replacement



STEMI after TAVR was associated with very **high in-hospital and mid-term mortality**. Longer door-to-balloon times and a higher PCI failure rate were observed in TAVR patients, partially due to coronary access issues specific to the TAVR population, and this was associated with poorer outcomes

Laurent Faroux et al. *JACC* 2021; 77:2187-2199.

TAVI program at Favaloro



TAVI + PCI at Favaloro

	ATC + TAVI n=237 (%)	TAVI n=710 (%)	
Hombres	140 (59,1)	317 (44,6)	<0,001
Edad	79±3,4	79,8±4,7	
STS (mortalidad)	6,85±2,4	4,6±1,9	
FEVI	56,1±9,9	54,8±11,2	
Resultados 30 Días			
Muerte	6 (2,5)	6 (0,8)	0,044
IAM	-		
Stroke >	2 (0.8)	1 (0,1)	0,09
Stroke <	5 (2,1)	2 (0,3)	0,004
PPMI	27 (11.3)	42 (5,9)	0,004
Sangrado Mayor	3 (3,1)	2 (0,3)	0,07
Complic. Vasc.	18 (7,6)	20(2,81)	0,001

Highlights:

- The coexistence of epicardial CAD among patients with AS is common.
- Diagnostic and treatment alternatives remain ambiguous and highly debated.
- Physiological changes of AS on hemodynamic status challenge assessment of concomitant CAD.
- Studies evaluating the efficacy of revascularization in patients with AS are needed.

Conclusiones:

- La indicación de revascularización en Ptes q van a recibir TAVI depende de los síntomas, severidad de las lesiones, monto isquémico, riesgo del procedimiento y expectativa de vida.
- Evidencias recientes sugieren q la revasc. de vasos mayores se asocial a una reducción del riesgo de IAM y revasc. de urgencia.
- El momento y la estrategia son aún motivo de debate.
- TAVI debe ser realizado alineando las comisuras para disminuir la dificultad posterior de cateterizar las coronarias
- En los SCA post TAVI debemos tomas las conductas habituales