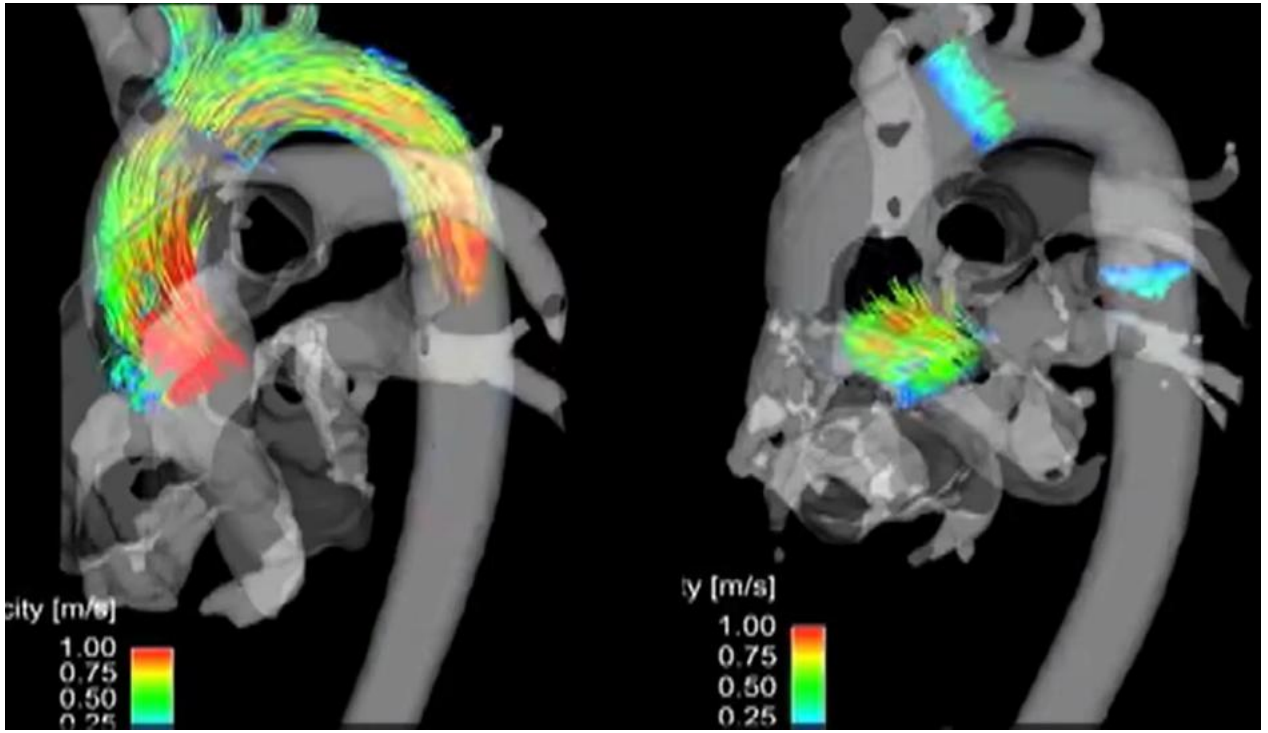


TAVI v roce 2025
komu, kdy a čím?

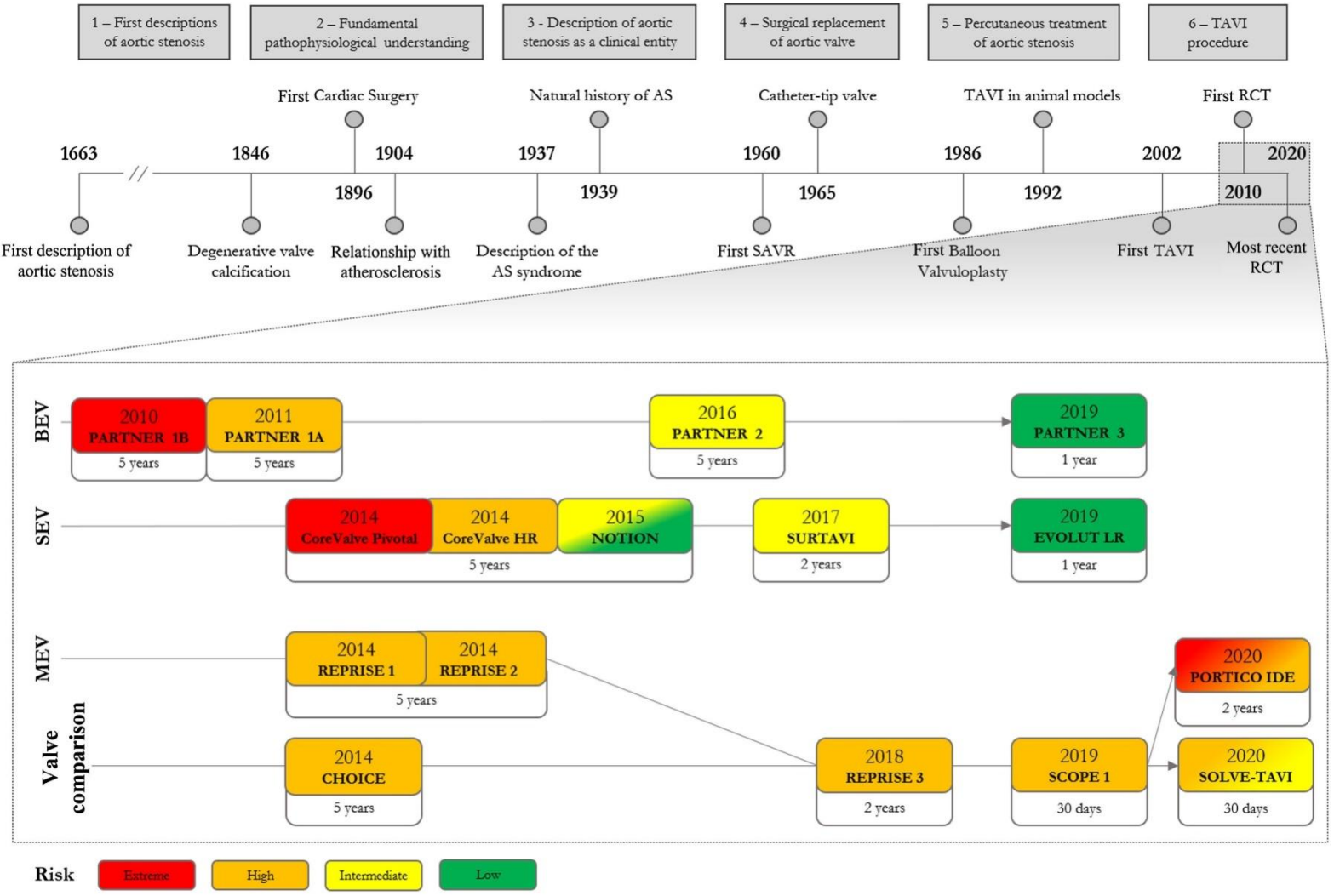
Viktor Kočka

Kardiocentrum

Fakultní nemocnice Královské Vinohrady a

3.lékařská fakulta UK v Praze

TAVI is an incredible success story



The NEW ENGLAND JOURNAL of MEDICINE

RESEARCH SUMMARY

Transcatheter or Surgical Treatment of Aortic-Valve Stenosis

Blankenberg S et al. DOI: 10.1056/NEJMoa2400685

CLINICAL PROBLEM

In patients with severe aortic-valve stenosis and low surgical risk, both transcatheter aortic-valve implantation (TAVI) and surgical aortic-valve replacement (SAVR) may be appropriate. However, insufficient evidence exists regarding a comparison of these two strategies in a real-world setting.

CLINICAL TRIAL

Design: A multicenter, unblinded, randomized trial in Germany examined whether TAVI would be noninferior to SAVR in patients with severe, symptomatic aortic-valve stenosis who were eligible for both procedures.

Intervention: 1414 patients ≥65 years of age who were at low or intermediate surgical risk and were eligible for TAVI or SAVR were assigned to one of the two procedures. Transcatheter and surgical valve devices were chosen by the patient's heart team. The primary outcome was a composite of death from any cause or fatal or nonfatal stroke at 1 year.

RESULTS

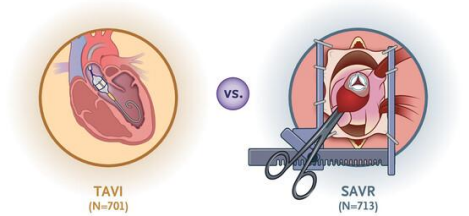
Efficacy: TAVI was noninferior to SAVR with respect to the composite of death or stroke.

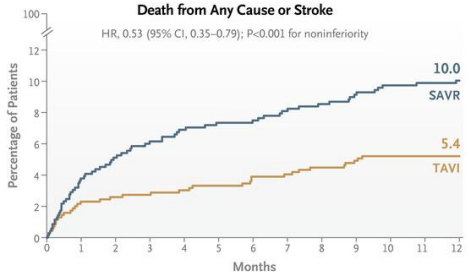
Safety: Patients in the TAVI group were less likely than those in the SAVR group to have major or life-threatening bleeding and were more likely to have vascular access-site complications.

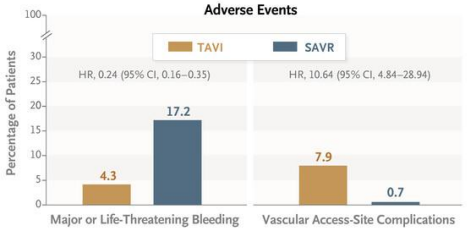
LIMITATIONS AND REMAINING QUESTIONS

- The findings were limited to 1 year of follow-up, so the results cannot be extrapolated to long-term outcomes; the primary outcome will be reevaluated at 5 years.
- 70 patients who were assigned to SAVR were treated with TAVI, usually at the patient's request.
- Patients with bicuspid aortic valves or the need for concomitant surgical procedures were excluded from the trial.

Links: Full Article | NEJM Quick Take | Editorial







CONCLUSIONS

In patients with severe, symptomatic aortic-valve stenosis and low or intermediate surgical risk, TAVI was noninferior to SAVR with respect to a composite outcome of death or stroke at 1 year.

Transcatheter or Surgical Treatment of Aortic-Valve Stenosis

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Published April 8, 2024 | DOI: 10.1056/NEJMoa2400685

Prospective, randomized, non-industry funded. Enrolment from May 2017 till September 2022. LARGE – 1400 pts!!

Table 1. Characteristics of the Patients at Baseline (Intention-to-Treat Population).*

Characteristic	TAVI (N=701)	SAVR (N=713)
Demographic		
Age — yr	74.3±4.6	74.6±4.2
Male sex — no./total no. (%)	390/696 (56.0)	400/698 (57.3)
Medical history		
Median body-mass index (IQR)†	28.1 (25.3–31.9)	28.1 (25.4–31.2)
Median STS-PROM score (IQR) — %‡	1.8 (1.2–2.4)	1.9 (1.2–2.5)
Score on EuroSCORE II — %§	2.1±1.4	2.1±1.8
Median frailty score (IQR)¶	3.0 (2.0–4.0)	3.0 (2.0–3.0)
Left ventricular ejection fraction — %	57.8±9.8	57.7±9.3
Cardiovascular risk factors — no./total no. (%)		
Hypertension	588/694 (84.7)	605/694 (87.2)
Dyslipidemia	378/691 (54.7)	383/689 (55.6)
Diabetes mellitus	235/695 (33.8)	229/698 (32.8)
Coexisting illness — no./total no. (%)		
Coronary artery disease	238/694 (34.3)	266/697 (38.2)
Cerebrovascular disease	27/676 (4.0)	31/693 (4.5)
Peripheral vascular disease	34/694 (4.9)	45/697 (6.5)
Previous myocardial infarction	36/696 (5.2)	52/697 (7.5)
Previous stroke	42/692 (6.1)	42/696 (6.0)
Atrial fibrillation	201/695 (28.9)	191/697 (27.4)
COPD	101/695 (14.5)	118/697 (16.9)
Pulmonary hypertension	84/693 (12.1)	73/686 (10.6)
NYHA class ≥3	321/695 (46.2)	318/697 (45.6)
Permanent pacemaker	37/696 (5.3)	35/698 (5.0)
Left bundle-branch block	53/678 (7.8)	54/682 (7.9)
Right bundle-branch block	65/678 (9.6)	65/682 (9.5)

Table S5. Procedural Characteristics.

	TAVI no./total no. (%)	SAVR no./total no. (%)
Anesthesia		
Conscious sedation or local anesthesia	535/712 (75.1)	-
General anesthesia	177/712 (24.9)	624/624 (100.0)
Access (TAVI)		
Transfemoral	732/752 (97.3)	-
Transapical	15/752 (2.0)	-
Transaxillary	2/752 (0.3)	-
Other	3/752 (0.4)	-
Access (SAVR)		
Sternotomy	-	318/625 (50.9)
Partial sternotomy	-	242/625 (38.7)
Other	-	65/625 (10.4)
Transcatheter heart valve prosthesis		
Balloon-expandable	462/752 (61.4)	-
Self-expanding	264/752 (35.1)	-
Other or unknown	26/752 (3.5)	-
Surgical heart valve prosthesis		
Stented	-	484/625 (77.4)
Stentless	-	1/625 (0.2)
Sutureless	-	99/625 (15.8)
Unknown		41/625 (6.6)
Procedural aspects		
Rapid ventricular pacing for implantation	591/737 (80.2)	-

[Table S5 continued.]

Pre-dilatation performed	358/729 (49.1)	-
Post-dilatation performed	174/745 (23.4)	-
Percutaneous vascular closure system	713/750 (95.1)	-
Cerebral embolic protection	38/738 (5.1)	-
Concomitant procedures		
CABG	-	11/625 (1.8)
MAZE procedure	-	6/625 (1.0)
Ascending aorta replacement	-	6/625 (1.0)
Mitral valve surgery	-	1/625 (0.2)
Tricuspid valve surgery	-	2/625 (0.3)
Median procedure time (IQR) — min	48.0 (35.0-65.0)	165.0 (136.0-201.0)
Median dose-area-product (IQR) — cGy*cm²	2,375 (764.0-5,551.8)	-
Median contrast medium (IQR) — ml	100.0 (69.0-140.0)	-
Median extracorporeal circulation time (IQR) — min	-	88.0 (72.0-108.0)
Median aortic cross clamp time (IQR) — min	-	61.0 (50.0-75.0)
Procedural complications		
Conversion to open heart surgery *	6/752 (0.8)	-
Implantation of a second valve prosthesis	3/752 (0.4)	
Pericardial tamponade	4/752 (0.5)	3/625 (0.5)
Coronary obstruction	1/752 (0.1)	2/625 (0.3)
Prosthesis malposition or embolization **	6/752 (0.8)	-

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text

Table S6. Types of Heart Valve Prostheses.

Type	No./total no. (%)
Surgical aortic valve prostheses	
Edwards Lifesciences Intuity Elite	21/625 (3.4)
Edwards Lifesciences Perimount	157/625 (25.1)
Edwards Lifesciences Perimount Magna	9/625 (1.4)
Edwards Lifesciences Perimount Magna Ease	162/625 (25.9)
Medtronic Freestyle	1/625 (0.2)
Medtronic Hancock II	23/625 (3.7)
Medtronic Hancock II Ultra	24/625 (3.8)
Sorin Crown PRT	2/625 (0.3)
Sorin Perceval	78/625 (12.5)
St. Jude Medical Epic	3/625 (0.5)
St. Jude Medical Epic Supra	11/625 (1.8)
St. Jude Medical Trifecta	93/625 (14.9)
Unknown	41/625 (6.6)
Transcatheter heart valves	
Boston Scientific Acurate Neo / Neo 2	99/752 (13.2)
Boston Scientific Lotus Edge	8/752 (1.1)
Edwards Lifesciences Sapien XT	1/752 (0.1)
Edwards Lifesciences Sapien 3 / 3 Ultra	461/752 (61.3)
Medtronic CoreValve Evolut R	101/752 (13.4)
Medtronic CoreValve Evolut Pro / Pro Plus	46/752 (6.1)
St. Jude Medical Portico	18/752 (2.4)
Unknown	18/752 (2.4)

Table S7. Hospitalization and Discharge Data.

	TAVI (N=753)	SAVR (N=625)
Median ICU length of stay index hospitalization (IQR) — days	1.0 (1.0-2.0)	2.0 (1.0-4.0)
Median length of stay index hospitalization (IQR) — days	5.0 (4.0-7.0)	9.0 (8.0-12.0)
Discharge location — no./total no. (%)		
Home	556/744 (74.7)	252/624 (40.4)
Rehab facility	114/744 (15.3)	274/624 (43.9)
Other hospital	38/744 (5.1)	73/624 (11.7)
Other	36/744 (4.8)	25/624 (4.0)
Death	3/751 (0.4)	9/625 (1.4)
Red blood cell transfusions in hospital— no./total no. (%)		
Patients requiring ≥1 unit	23/742 (3.1)	203/623 (32.6)
Patients requiring ≥ 4 units	14/742 (1.9)	79/623 (12.7)

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Table S14. Echocardiography data.

Echocardiographic parameters	Baseline TAVI n = 672	Baseline SAVR n = 675	Discharge TAVI n = 630	Discharge SAVR n =571	Discharge Median difference (95%CI)	1 Year TAVI n = 561	1 Year SAVR n = 488	1 Year Median difference (95%CI)
Aortic-valve effective orifice area (IQR) – cm^2	0.8 (0.6-0.9)	0.8 (0.6-0.9)	1.8 (1.5-2.1)	1.7 (1.4-2.0)	-0.1 (-0.1-0.0)	1.6 (1.4-2.0)	1.6 (1.3-1.9)	-0.1 (-0.1-0.0)
Aortic-valve mean gradient (IQR)– mmHg	45.0 (37.0-55.0)	44.0 (35.0-53.9)	11.0 (8.0-14.9)	11.0 (8.0-14.2)	0.0 (-0.5-0.6)	10.0 (7.9-14.0)	11.0 (8.0-14.0)	0.4 (0.0-1.0)
Aortic-valve peak gradient (IQR) – mmHg	71.8 (61.0-87.0)	70.0 (56.2-84.0)	20.0 (15.0-26.6)	21.0 (16.0-27.0)	0.2 (-0.8-1.2)	19.0 (14.0-25.5)	20.0 (15.0-25.0)	1.0 (-0.0-2.0)
Left ventricular ejection fraction (IQR) – %	60.0 (55.0-64.0)	58.5 (54.0-64.0)	60.0 (55.0-63.0)	58.0 (53.0-63.0)	0.0 (-2.0-0.0)	60.0 (55.0-64.0)	60.0 (55.0-65.0)	0.0 (0.0-1.0)
Left ventricular end-diastolic volume (IQR) – ml	96.0 (74.2-122.0)	95.0 (72.0-121.0)	99.2 (75.5-126.3)	86.0 (66.0-117.0)	-9.0 (-14.8- -4.0)	95.0 (72.0-122.0)	90.0 (70.0-114.0)	-5.0 (-10.0- 0.0)
Left ventricular end-systolic volume (IQR) – ml	38.0 (25.0-55.6)	37.0 (25.0-54.0)	40.0 (27.5-56.0)	36.0 (24.0-53.0)	-3.0 (-6.0-0.0)	37.4 (27.0-53.0)	35.0 (26.0-47.0)	-2.7 (-5.0-0.0)
Stroke volume (IQR) – ml	57.0 (45.0-69.0)	55.0 (43.0-69.0)	55.8 (45.0-71.5)	48.0 (38.0-62.0)	-7.1 (-10.0- -4.6)	56.0 (43.0-71.0)	54.0 (43.0-69.0)	-1.7 (-5.0-2.0)
TAPSE (IQR) – mm	22.0 (19.0-26.0)	22.0 (19.0-25.0)	22.0 (18.5-25.0)	16.0 (13.0-19.0)	-6.0 (-7.0- -6.0)	22.0 (19.0-25.0)	19.0 (17.0-21.0)	-3.0 (-4.0- -3.0)
sPAP (IQR) – mmHg	35.0 (28.5-42.0)	35.0 (29.0-42.0)	34.0 (28.0-40.0)	33.0 (26.0-40.0)	0.0 (-2.0-1.0)	31.0 (26.0-36.0)	30.5 (26.0-36.0)	0 (-1.0-1.0)
Aortic-valve regurgitation – no. (%)								
None / trace	304 (45.4)	328 (49.3)	503 (77.5)	548 (93.7)	-	422 (73.8)	431 (88.3)	-
Mild	290 (43.3)	254 (38.2)	135 (20.8)	33 (5.6)	-	134 (23.4)	52 (10.7)	-
≥ Moderate	76 (11.3)	83 (12.5)	11 (1.7)	4 (0.7)	-	16 (2.8)	5 (1.0)	-
Mitral valve regurgitation ≥ Moderate – no. (%)	47 (6.9)	60 (8.8)	31 (5.0)	24 (4.2)	-	31 (5.4)	23 (4.7)	-

Table S16. Comparison of Previous Studies on TAVI versus SAVR.

	PARTNER 2A [6]	SURTAVI [5]	NOTION [4]	UK TAVI [9]	PARTNER 3 [7]	Evolut Low Risk [8]	DEDICATE
Number of patients	2032	1660	276	412	950	1403	1414
Mean age — yr	81.6	79.8	79.1	81.0	73.0	74.0	74.4
Sex — % male	54.5	55-57.6	53.2	54	69.3	65.1	56.7
STS-PROM — %	5.8	4.5	<4	2.6	1.9	1.9	1.8
1-yr all-cause death (TAVI vs. SAVR) — %	12.3 vs.12.9	6.7 vs. 6.8	4.9 vs. 7.5	4.6 vs. 6.6	1.0 vs. 2.5	2.4 vs. 3.0	2.6 vs. 6.2
1-yr any stroke (TAVI vs. SAVR) — %	8.0 vs. 8.1	5.4 vs. 6.9	2.9 vs. 4.6	5.2 vs. 2.6	1.2 vs. 3.1	4.1 vs. 4.3	2.6 vs. 4.6
Funding	Edwards Lifesciences	Medtronic	Danish Heart Foundation, Medtronic	National Institute for Health Research	Edwards Lifesciences	Medtronic	German Center for Cardiovascular Research, German Heart Foundation

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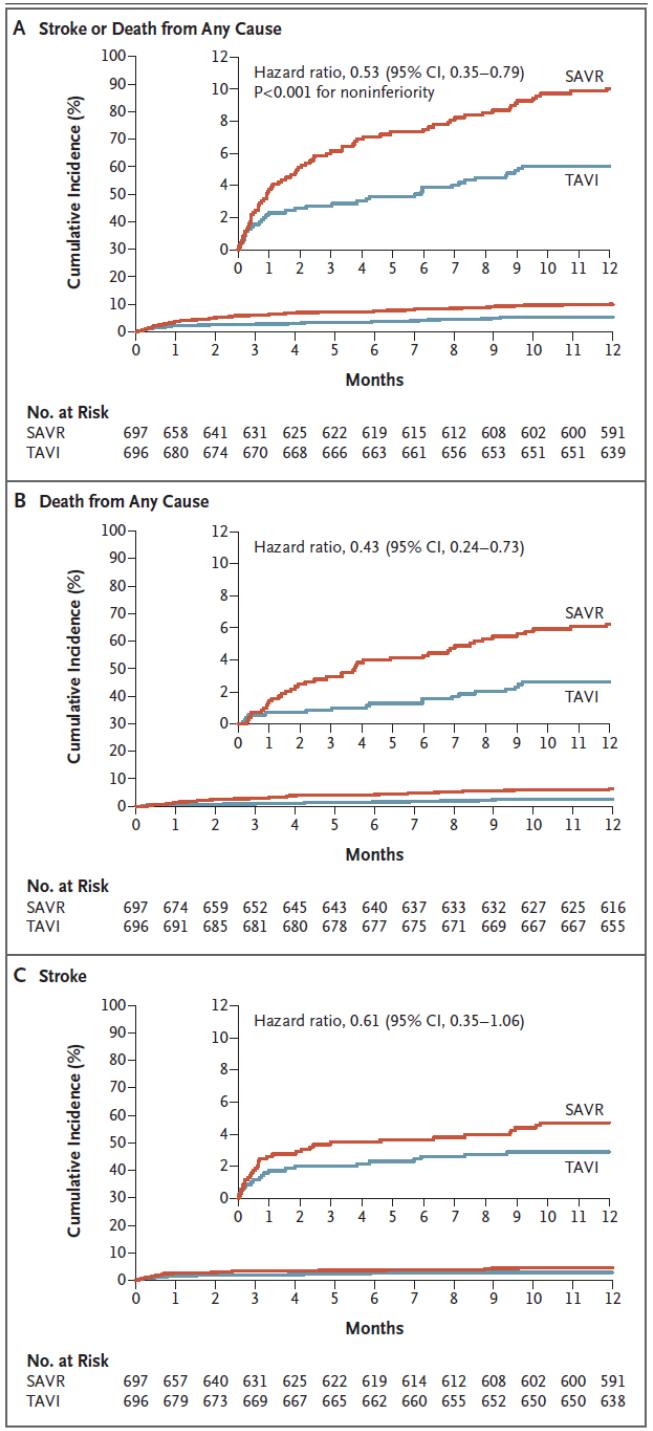
Table S13. Cause of Death.

	Within 30 Days		*Within 1 Year*	
	TAVI (N=5)	SAVR (N=10)	TAVI (N=18)	SAVR (N=42)
Arrhythmia	0	1	0	2
Bleeding event	0	0	0	1
Cardiogenic shock	1	4	2	6
COVID	0	1	1	2
Endocarditis	0	0	1	2
Heart failure	0	0	1	2
Intracranial bleeding	0	1	0	2
Malignancy	0	0	0	2
Multi-organ-failure	0	1	0	3
Myocardial infarction	1	0	2	1
Respiratory failure	0	0	0	2
Sepsis	1	1	3	8
Type-A Dissection	1	0	1	0
Unknown	1	1	7	9

DEDICATE study is independent German randomized trial, which clearly shows superior results of TAVI in comparison to AVR in patients at intermediate/low risk and age 74 ± 5 years.
Edwards TAVI and Edwards SAVR dominated the German market…
Mortality at 1Y is reduced by factor of 2.



TAVI long-term clinical data

Journal of the American Heart Association 2023 Nov 7;12(21):e030012.

ORIGINAL RESEARCH

Midterm Survival of Low-Risk Patients Treated With Transcatheter Versus Surgical Aortic Valve Replacement: Meta-Analysis of Reconstructed Time-to-Event Data

Michel Pompeu Sá, MD, MSc, MHBA, PhD*; Xander Jacquemyn, BSc*; Jef Van den Eynde, BSc; Derek Serna-Gallegos, MD; Danny Chu, MD; Marie-Annick Clavel, DVM, PhD; Philippe Pibarot, DVM, PhD; Ibrahim Sultan, MD

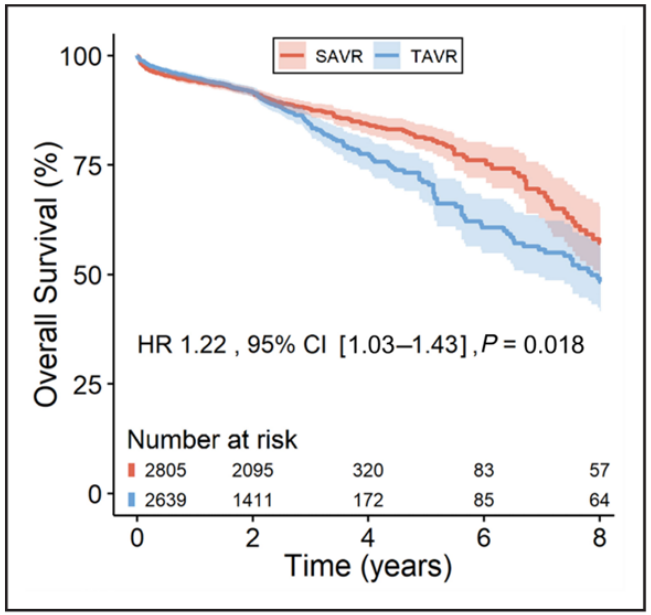


Figure 1. Main analysis of overall survival up to 8 years, including all studies.

The solid lines represent the estimates, and the surrounding bands are 95% CI. HR indicates hazard ratio; SAVR, surgical aortic valve replacement; and TAVR, transcatheter aortic valve replacement.

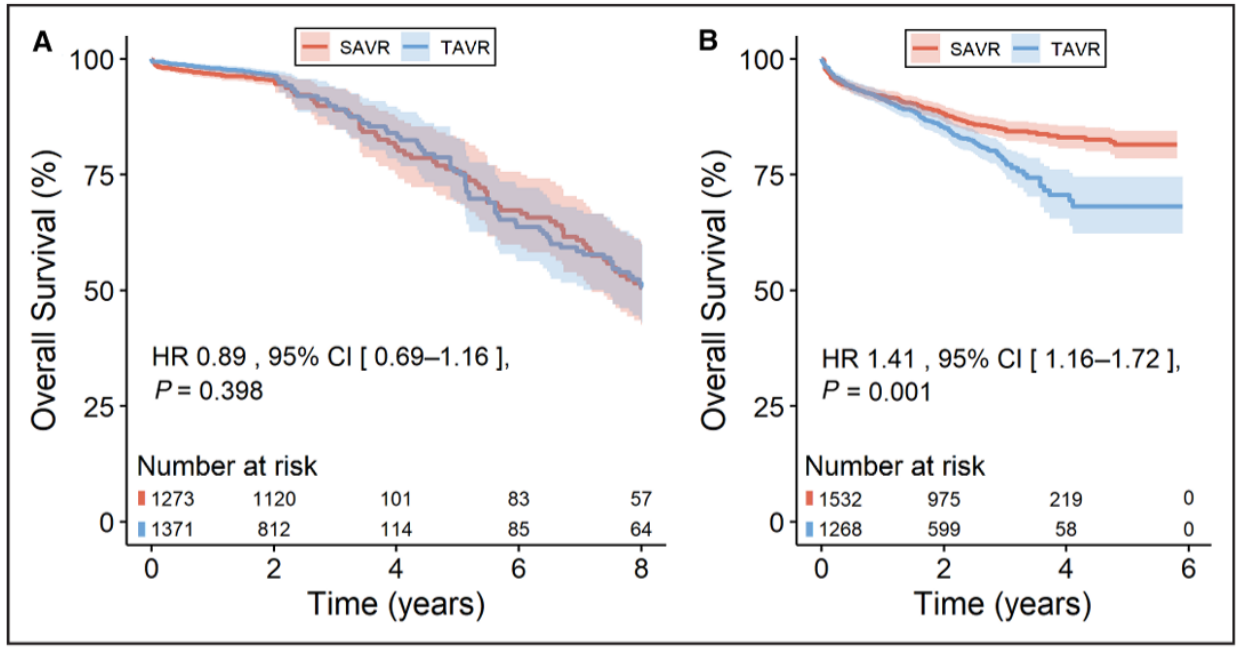


Figure 5. Sensitivity analysis.

A, Randomized controlled trials. **B**, Propensity-score matched studies. HR indicates hazard ratio; SAVR, surgical aortic valve replacement; and TAVR, transcatheter aortic valve replacement.

TAVI long-term clinical data - Meta-analyses

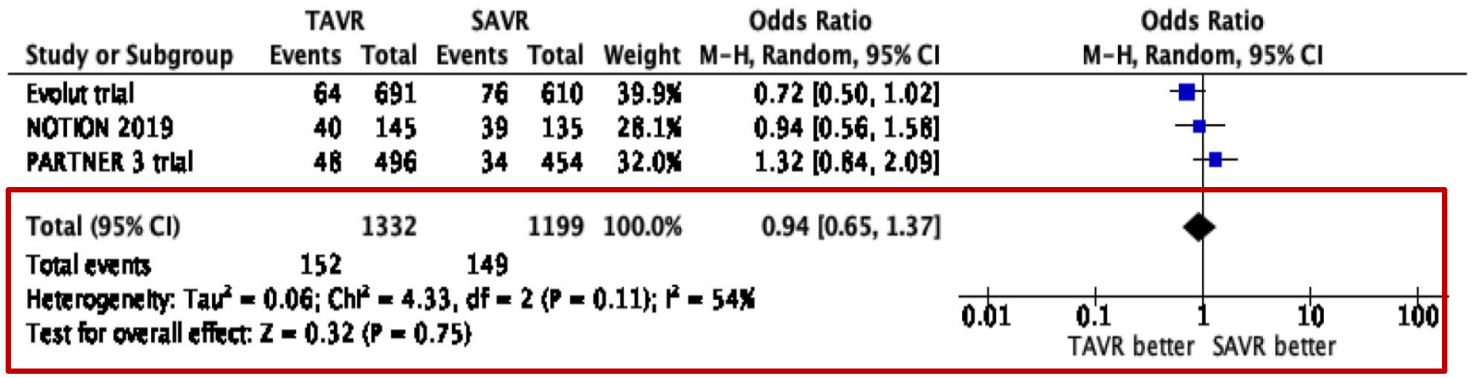


Figure 2. All cause of mortality. CI = Confidence Interval; TAVR = Transcatheter Aortic Valve Replacement; SAVR = Surgical Aortic Valve Replacement.

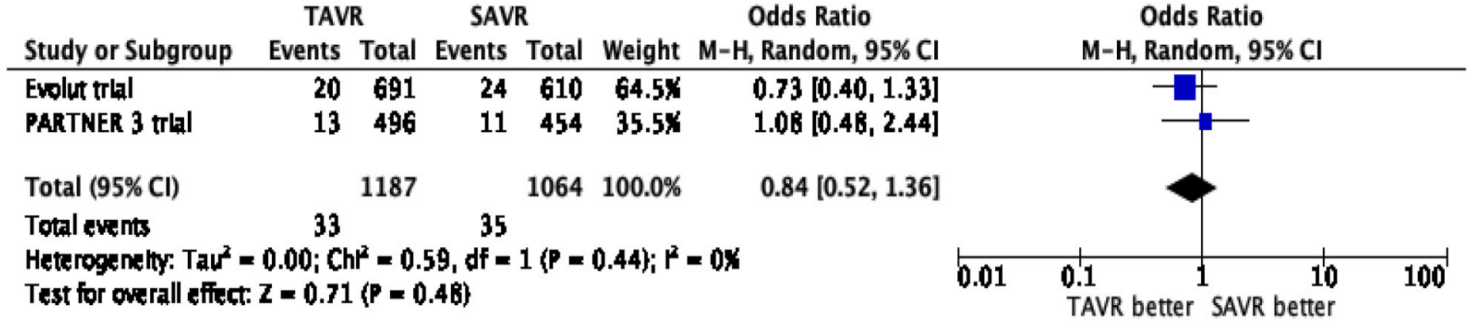
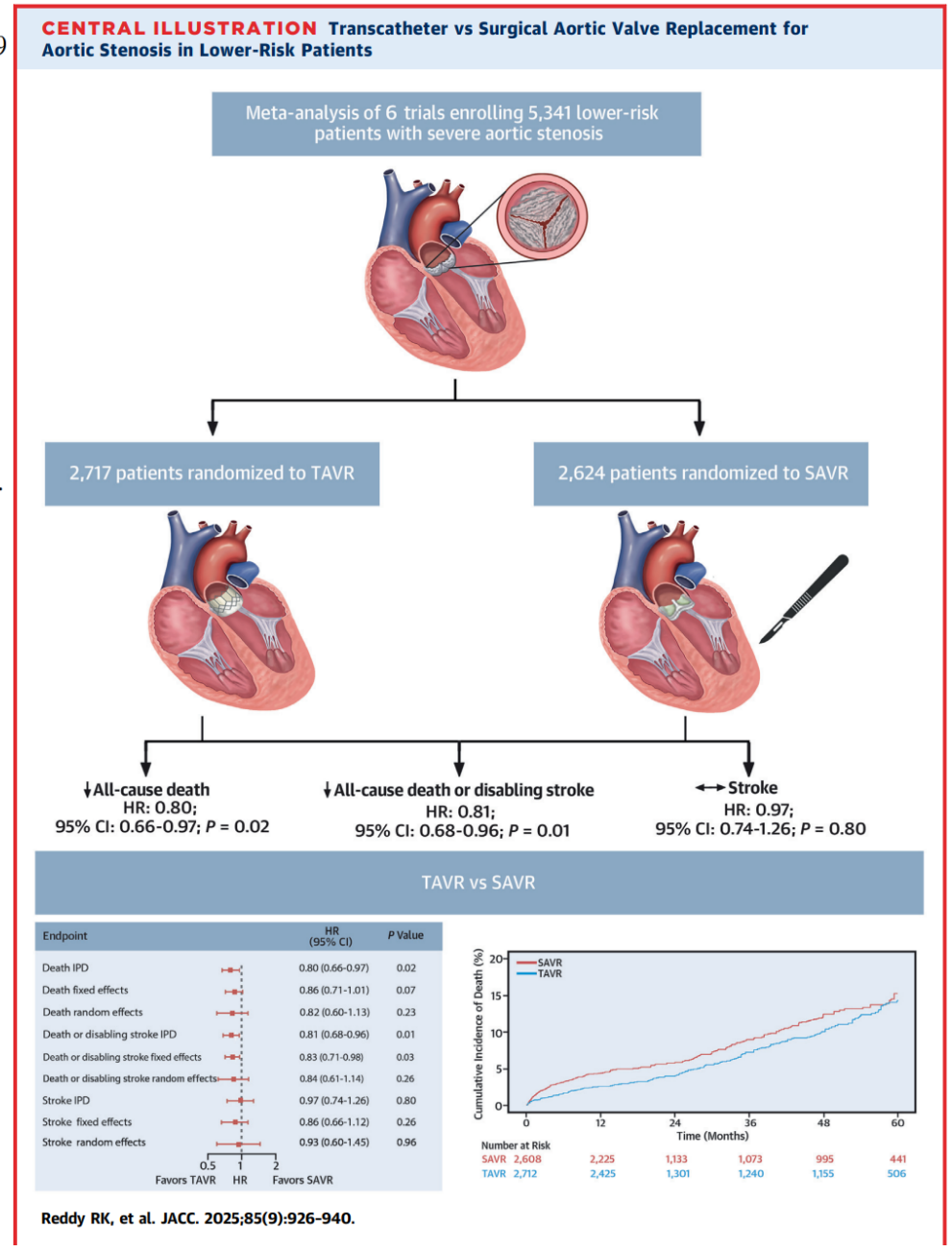


Figure 3. Disabling stroke. CI = Confidence Interval; TAVR = Transcatheter Aortic Valve Replacement; SAVR = Surgical Aortic Valve Replacement.



The American Journal of Cardiology
Volume 224, 1 August 2024, Pages 56-64

Indications for Interventions

Change – no absolute age cut-off

Table 6
Clinical, anatomical and procedural factors that influence the choice of treatment modality for an individual patient

	Favours TAVI	Favours SAVR
Clinical characteristics		
Lower surgical risk	–	+
Higher surgical risk	+	–
Younger age[a]	–	+
Older age[a]	+	–
Previous cardiac surgery (particularly intact coronary artery bypass grafts at risk of injury during repeat sternotomy)	+	–
Severe frailty[a]	+	–
Active or suspected endocarditis	–	+
Anatomical and procedural factors		
TAVI feasible via transfemoral approach	+	–
Transfemoral access challenging or impossible and SAVR feasible Transfemoral access challenging or impossible and SAVR inadvisable	– +[c]	+ –
Sequelae of chest radiation	+	–
Porcelain aorta	+	–
High likelihood of severe patient–prosthesis mismatch (AVA <0.65 cm^2/m^2 BSA)	+	–
Severe chest deformation or scoliosis	+	–
Aortic annular dimensions unsuitable for available TAVI devices	–	+
Bicuspid aortic valve	–	+
Valve morphology unfavourable for TAVI (e.g. high risk of coronary obstruction due to low coronary ostia or heavy leaflet/LVOT calcification)	–	+
Thrombus in aorta or LV	–	+
Concomitant cardiac conditions requiring intervention		
Significant multi-vessel CAD requiring surgical revascularization	–	+
Severe primary mitral valve disease	–	+
Severe tricuspid valve disease	–	+
Significant dilatation/aneurysm of the aortic root and/or ascending aorta	–	+
Septal hypertrophy requiring myectomy	–	+

AVA=aortic valve area, BSA=body surface area, CAD=coronary artery disease; ESC=European Society of Cardiology; LV=left ventricle/left ventricular; LVOT=left ventr

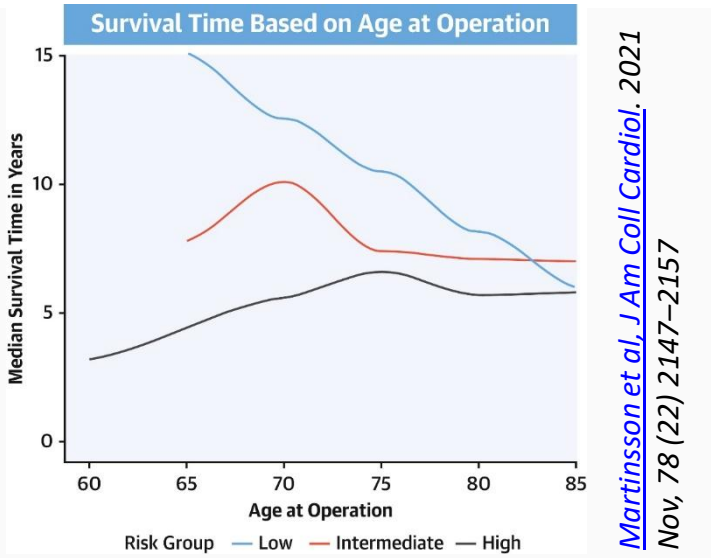
Integration of these factors provides guidance for the Heart Team decision (indications for intervention are provided in the table of recommendations on indications for intervention in symptomatic and asymptomatic aortic stenosis and recommended modes of intervention).

a Life expectancy is highly dependent on absolute age and frailty, differs between men and women, and may be a better guide than age alone. There is wide variation across Europe and elsewhere in the world (http://ghdx.healthdata.org/record/ihme-data/gbd-2017-life-tables-1950-2017).

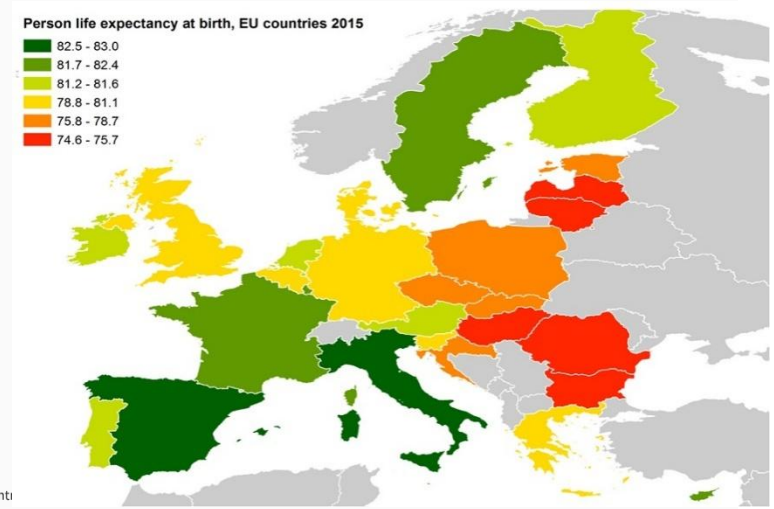
b Severe frailty = ≥2 factors according to Katz Index[59] (see section 5.3 for further discussion).

c Via non-transfemoral approach.

d According to the 2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes.



Martinsson et al, J Am Coll Cardiol. 2021 Nov, 78 (22) 2147–2157



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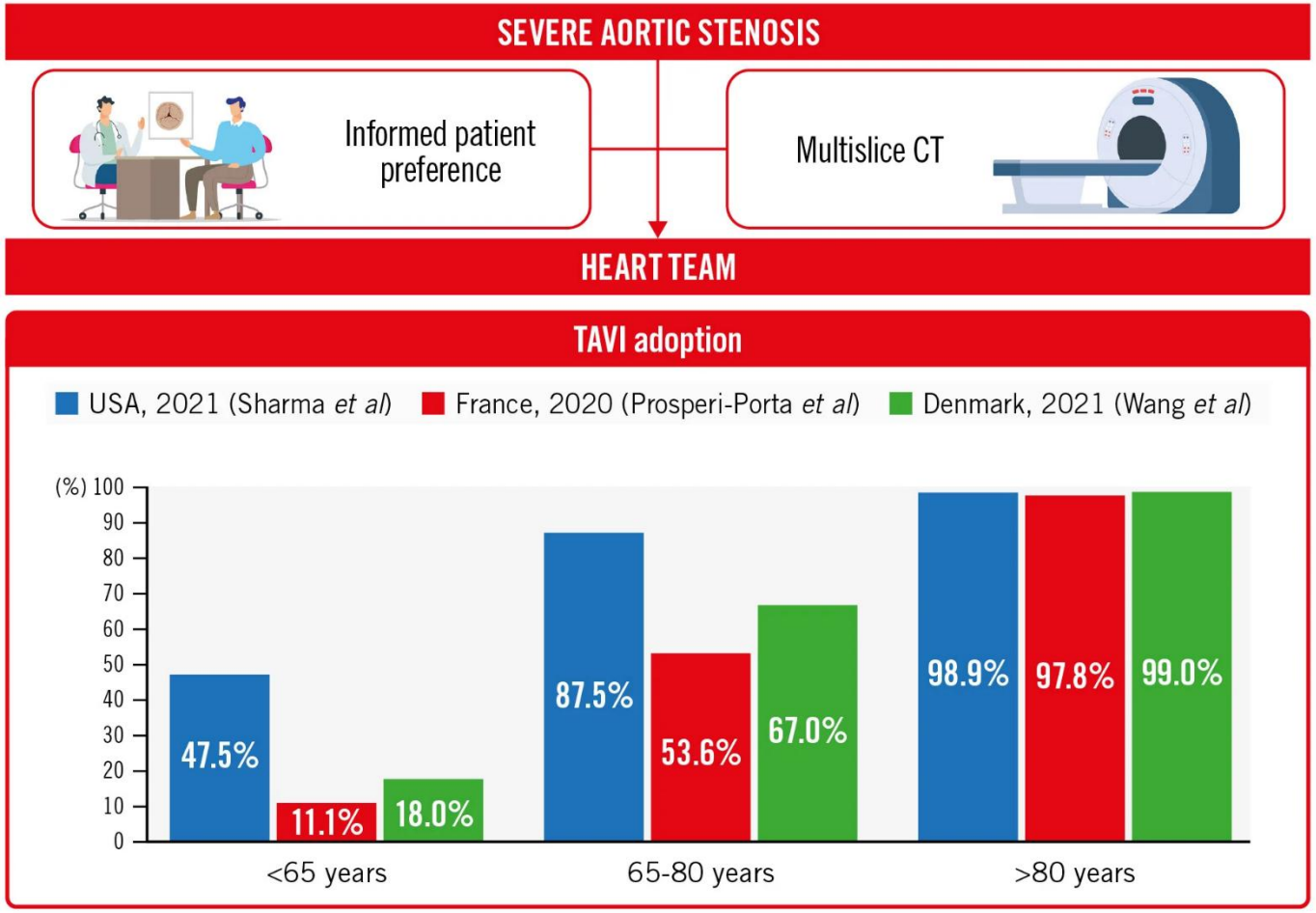
DOI: 10.4244/EIJ-E-23-00065

EDITORIAL

Aortic stenosis management: current evolution and future challenges

Andrea Scotti[1,2]*, MD; Azeem Latib[1], MD



TAVI komu?

- když pravděpodobně protéza vydrží déle než pacient (v ČR tedy u většiny mužů nad 70 let a většiny žen nad 75 let)
- když je riziko PPM

TAVI komu NE

- 2 cípá chlopeň u pacienta s nízkým rizikem SAVR
- jasná jiná indikace ke KCH
- věk pacienta pod 60-65 let – tedy pacient vydrží déle než protéza

TAVI komu možná?

- individuálně zvážit všechny ostatní

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Transcatheter Aortic-Valve Replacement for Asymptomatic Severe Aortic Stenosis

P. Généreux, A. Schwartz, J.B. Oldemeyer, P. Pibarot, D.J. Cohen, P. Blanke, B.R. Lindman, V. Babaliaros, W.F. Fearon, D.V. Daniels, A.K. Chhatriwalla, C. Kavinsky, H. Gada, P. Shah, M. Szerlip, T. Dahle, K. Goel, W. O'Neill, T. Sheth, C.J. Davidson, R.R. Makkar, H. Prince, Y. Zhao, R.T. Hahn, J. Leipsic, B. Redfors, S.J. Pocock, M. Mack, and M.B. Leon, for the EARLY TAVR Trial Investigators*

NEJM 2025 Jan 16;392(3):217-227.

	TAVR (N=444)	CS with AVR (N=388)
Type of anesthesia — no. (%)		
General anesthesia	84 (18.9)	73 (18.8)
Conscious sedation	355 (80.0)	311 (80.2)
Conversion from conscious sedation to general anesthesia	5 (1.1)	4 (1.0)
Anesthesia duration — min	117.2 ± 46.1 (444)	119.2 ± 47.1 (386)
Procedure duration — min	40.0 ± 17.7 (443)	45.0 ± 39.4 (380)
Total fluoroscopy time — min†	12.8 ± 6.5 (442)	13.8 ± 6.8 (374)
BAV performed — no./total no. (%)†	125/444 (28.2)	128/381 (33.6)
Final Valve type — no. (%)		
SAPIEN 3	361 (81.3)	215 (55.4)
SAPIEN 3 Ultra	83 (18.7)	156 (40.2)
Surgical valve	---	7 (1.8)
Non-study THV	---	10 (2.6)
Final SAPIEN 3/SAPIEN 3 Ultra size — no. (%)‡		
20 mm	14 (3.2)	3 (0.8)
23 mm	127 (28.6)	129 (34.8)
26 mm	217 (48.9)	170 (45.8)
29 mm	86 (19.4)	69 (18.6)
Post dilatation performed — no./total no. (%)†	62/444 (14.0)	52/380 (13.7)
Cerebral protection device used — no./total no. (%)†	96/444 (21.6)	102/381 (26.8)
More than one THV implanted — no./total no. (%)†	4/444 (0.9)	2/381 (0.5)

AVR denotes aortic valve replacement, BAV balloon aortic valvuloplasty, CS clinical surveillance, TAVR transcatheter aortic valve replacement, THV transcatheter heart valve.
*Plus–minus values are means ±SD, with (total no. of patients) provided because some parameters were not evaluable for all patients.
†Only reported among those who underwent a TAVR procedure.
‡Only reported among those who received a study valve (N=444 in the TAVR arm and N=371 among patients in the CS arm who converted to AVR).

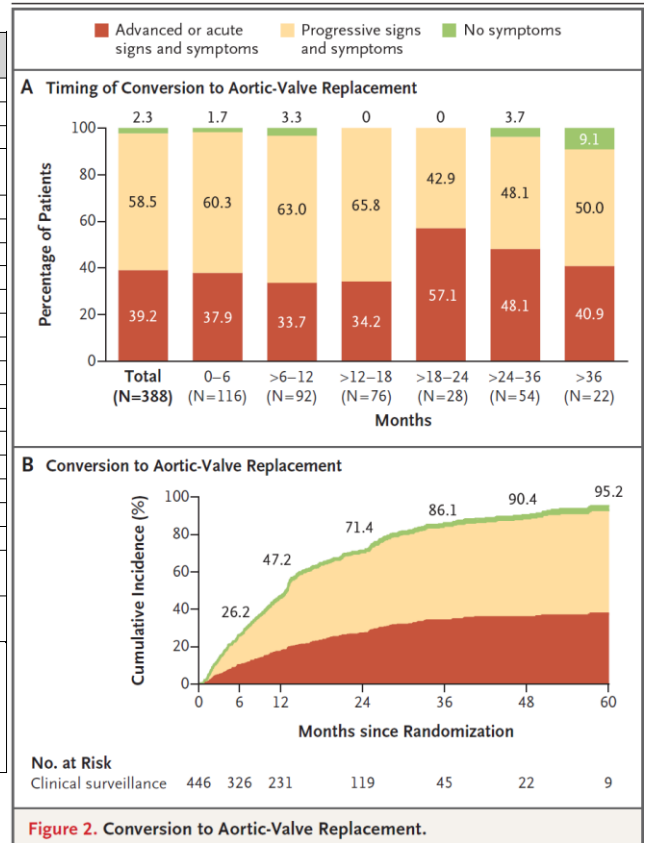
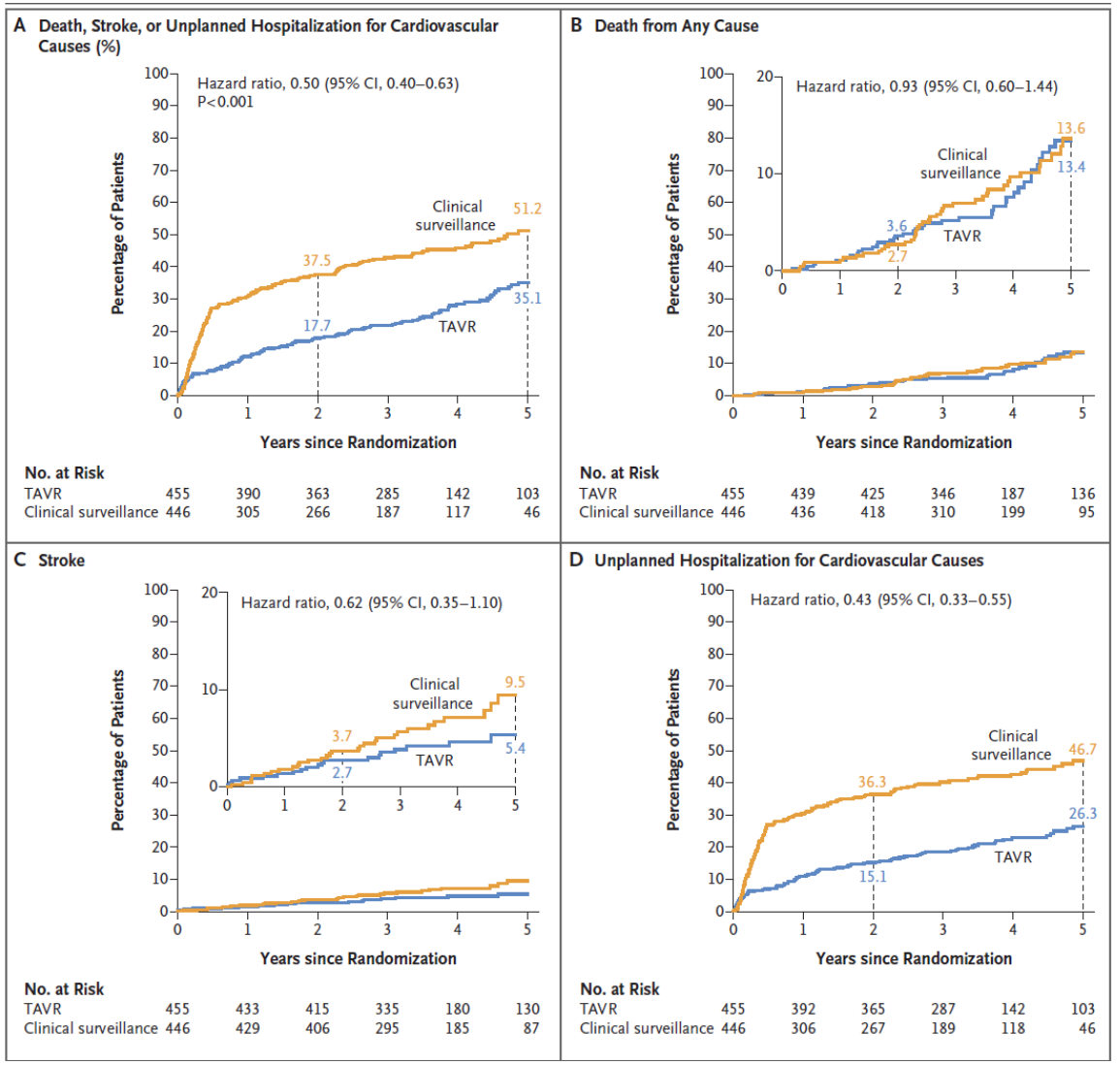


Figure 2. Conversion to Aortic-Valve Replacement.



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Transcatheter Aortic Valve Replacement in Patients With Systolic Heart Failure and Moderate Aortic Stenosis

TAVR UNLOAD

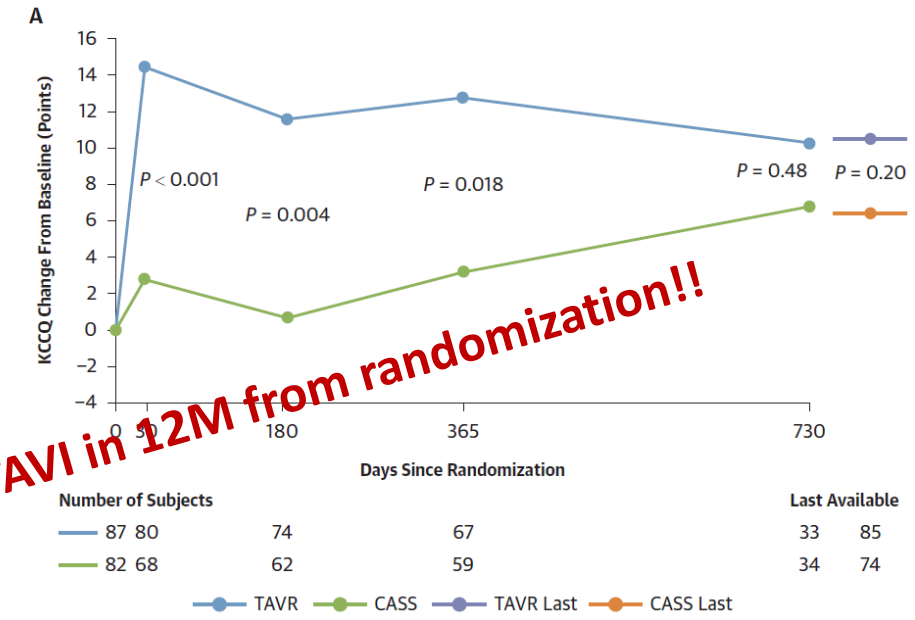
Nicolas M. Van Mieghem, MD, PhD,[a] Sammy Elmariah, MD, MPH,[b] Ernest Spitzer, MD,[a,c]

Study Device: Edwards SAPIEN 3 and SAPIEN 3 Ultra
Control: GDMT defined as heart failure guideline-directed medical therapy in combination with approved HF devices if indicated.
Study Design: International, multi-center, randomized, open-label, clinical trial comparing the safety and efficacy of TAVR with the SAPIEN 3 or SAPIEN 3 Ultra THV and GDMT versus GDMT in HF patients, with moderate AS.
Randomization Details: Eligible patients were randomized (in a 1:1 ratio) either TAVR and GDMT or to GDMT alone.
Patient Population: Consisted of subjects with moderate aortic stenosis (AVA 1.0-1.5cm2) and in heart failure (HF) with left ventricular ejection fraction (LVEF)<50% and New York Heart Association (NYHA) class II to IV despite GDMT.
Slow enrolment. EP evaluated by WIN ratio.

TABLE 2 Primary and Secondary Clinical Endpoints

Pairwise Comparison Endpoint	TAVR Win, % (n = 89)	CASS Win, % (n = 89)	Win Ratio (95% CI)	*P* Value[a]
At longest follow-up				
Hierarchical composite endpoint (events and KCCQ)	47.6	36.3	1.31 (0.91-1.88)	0.14
Hierarchical composite endpoint (events)	35.7	30.9	1.15 (0.76-1.76)	0.51
At 1-y follow-up				
Hierarchical composite endpoint (events and KCCQ)	48.0	30.9	1.55 (1.04-2.31)	0.032
Hierarchical composite endpoint (events)	31.1	22.3	1.39 (0.82-2.35)	0.22

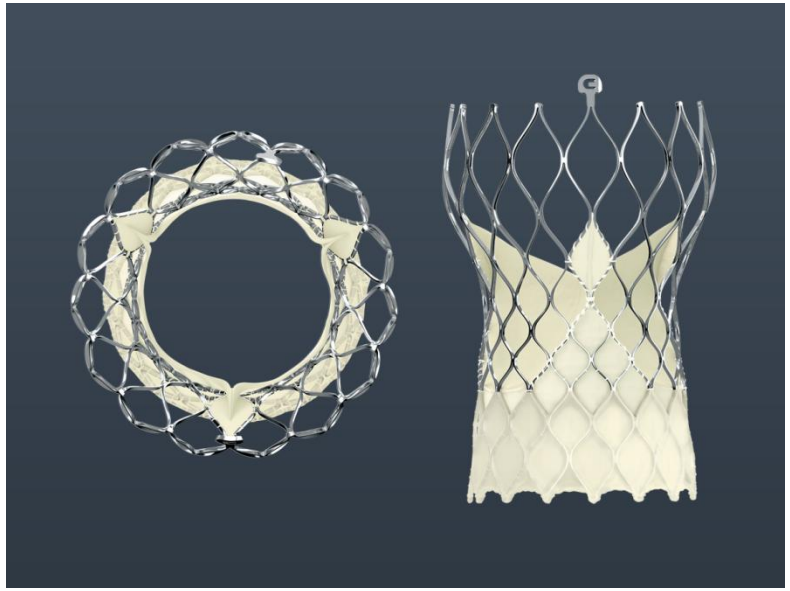
FIGURE 4 KCCQ Changes Over Time



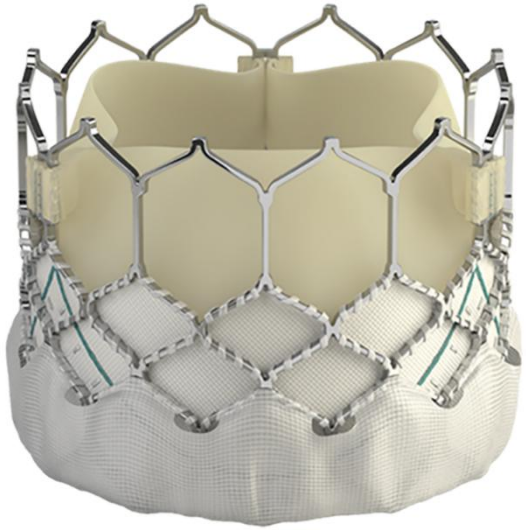
43% of patients underwent TAVI in 12M from randomization!!

All TAVI prostheses are the same….

or NOT ??



Repositionable
Larger EOA….better durability ??
Lower risk of anular rupture

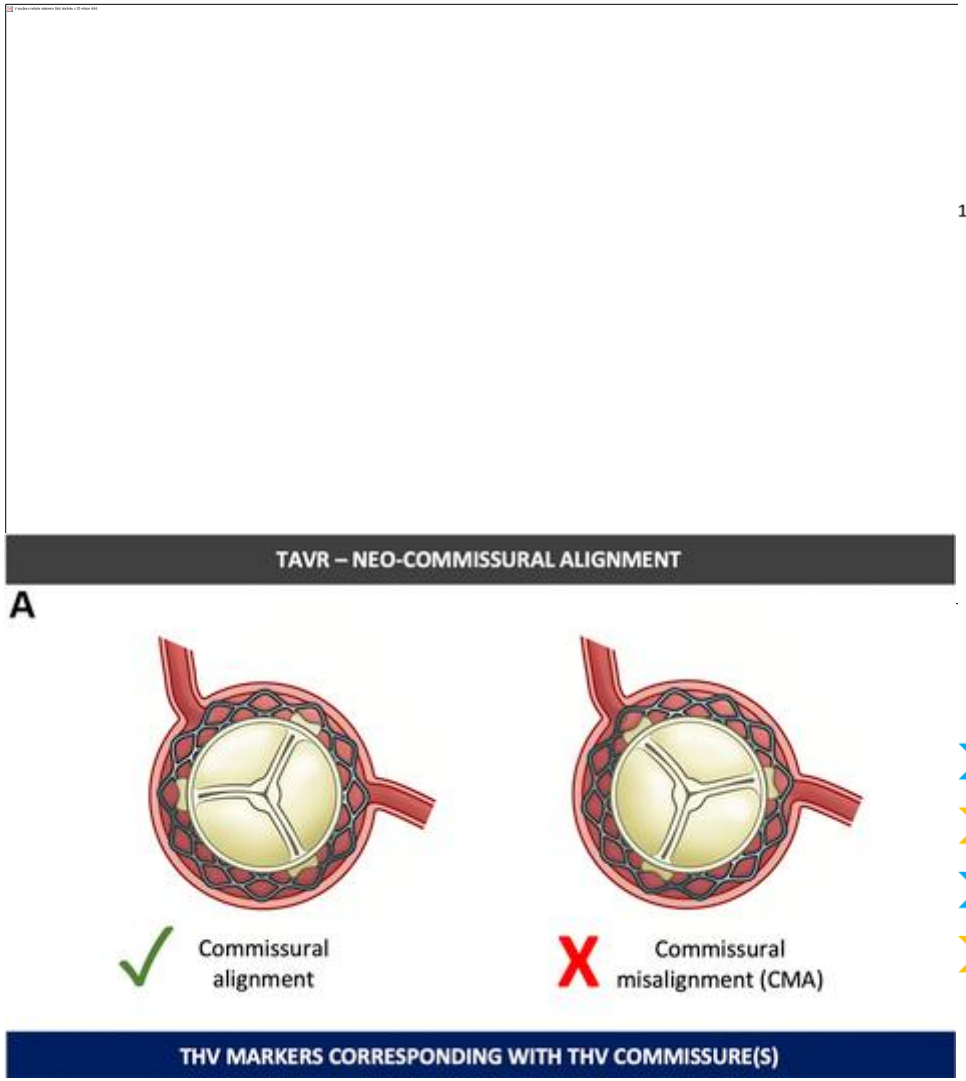


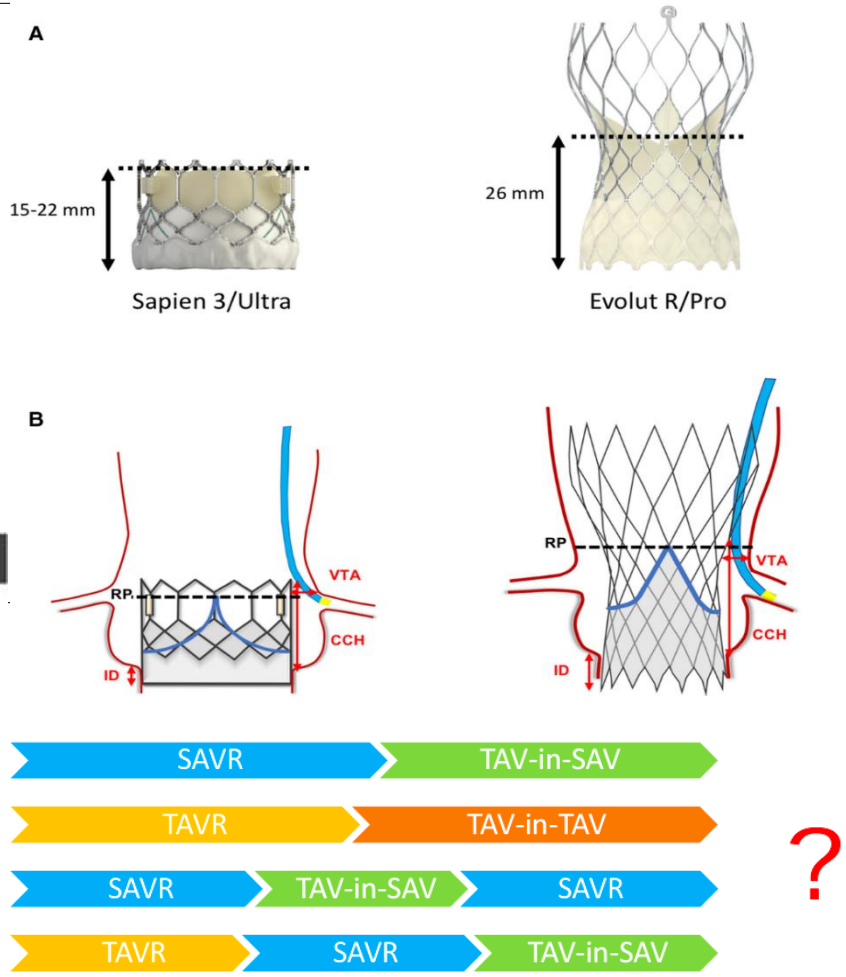
Quick and simple implantation !!
Easier coronary re-access
Good chance of TAVI in TAVI if degeneration

TAVI degeneration is no issue

or NOT…..it will come…

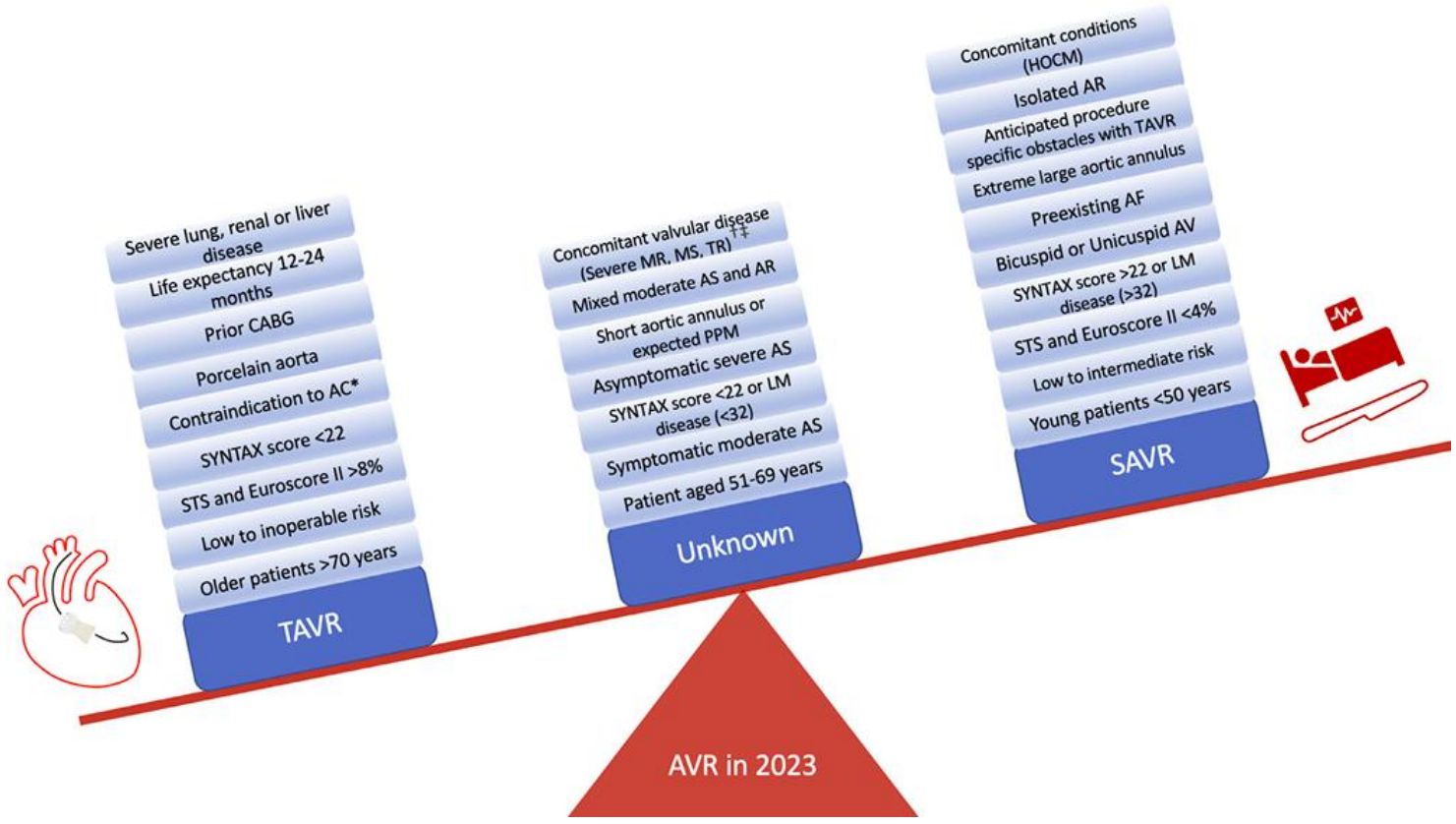
Every bioprosthesis degenerates, TAVI is no exception





Závěr

TAVI je skvělá metoda a indikace se stále rozšiřují. SAVR stále má své místo, optimální u mladých pacientů a dvojcípé anatomii. Balonkem expandibilní i samo-expandibilní protéza má své výhody a nevýhody, možnost individualizace péče !



AmJCardiol2023;193:1−18