

SAVR vs. TAVR Strategy Trials (PARTNER 3 and RHEIA)

Therapeutic Strategies in Small Annulus AS

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Disclosure of Relevant Financial Relationships

Within the prior 24 months, I have had a financial relationship with a company producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients:

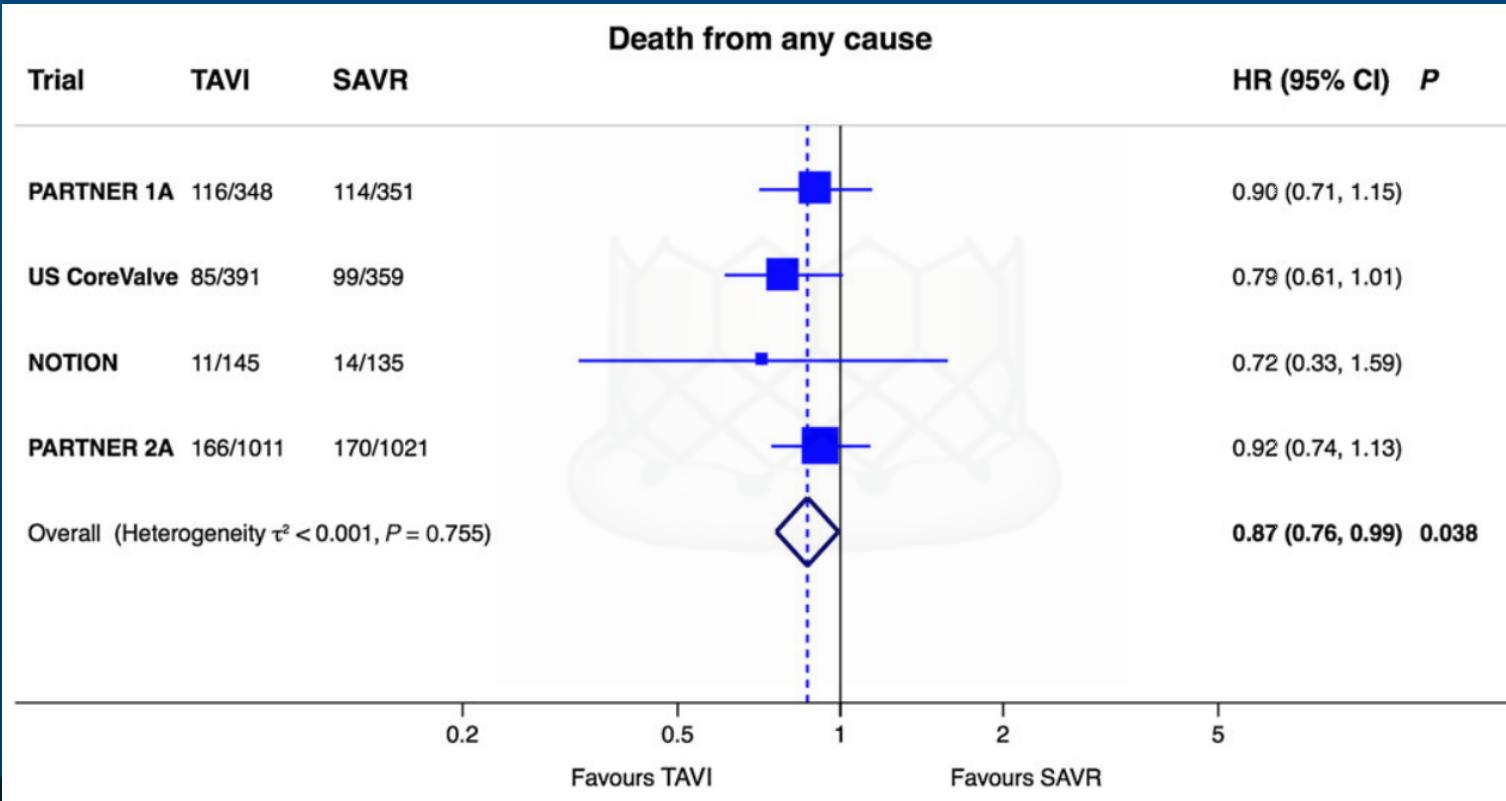
Nature of Financial Relationship

Consultant Fees/Honoraria

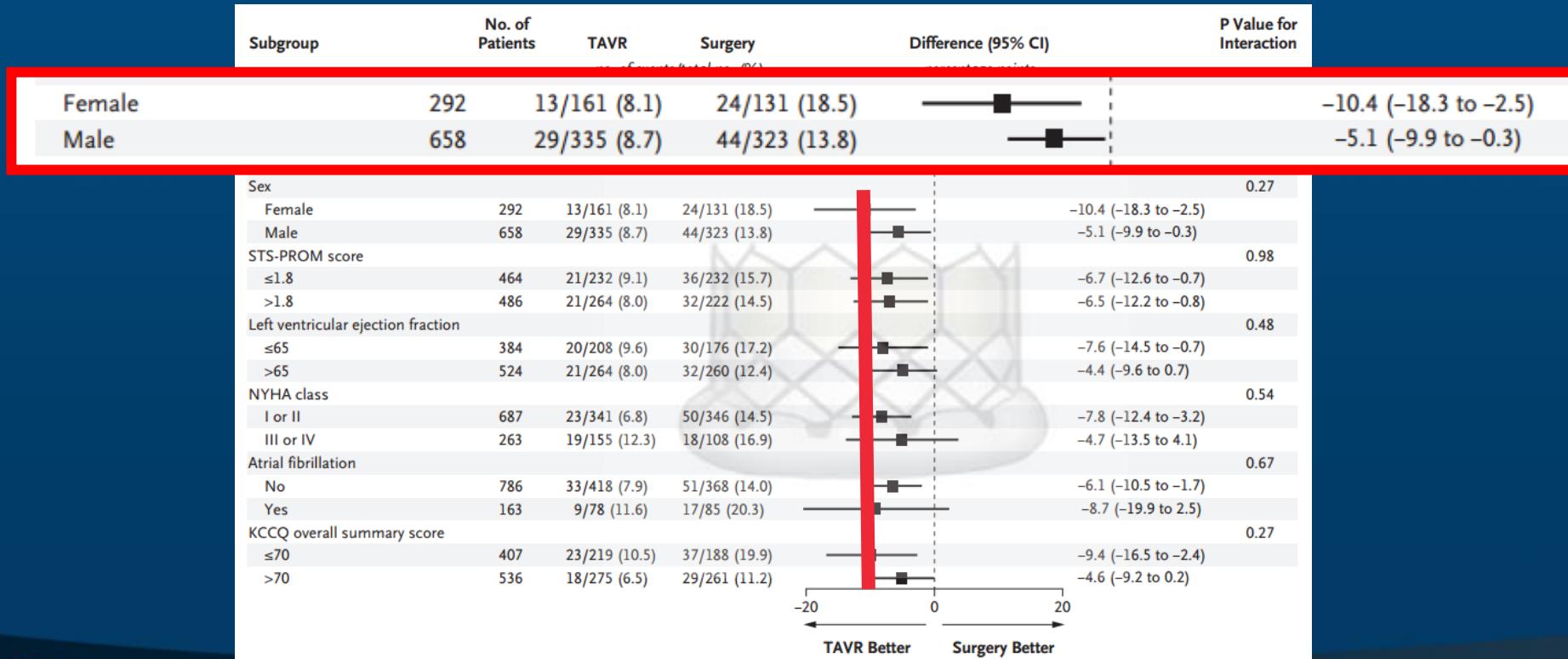
Ineligible Company

Edwards Lifesciences
Medtronic
Angiodynamics

Mortality benefit for TAVR in women Early Randomized Trials

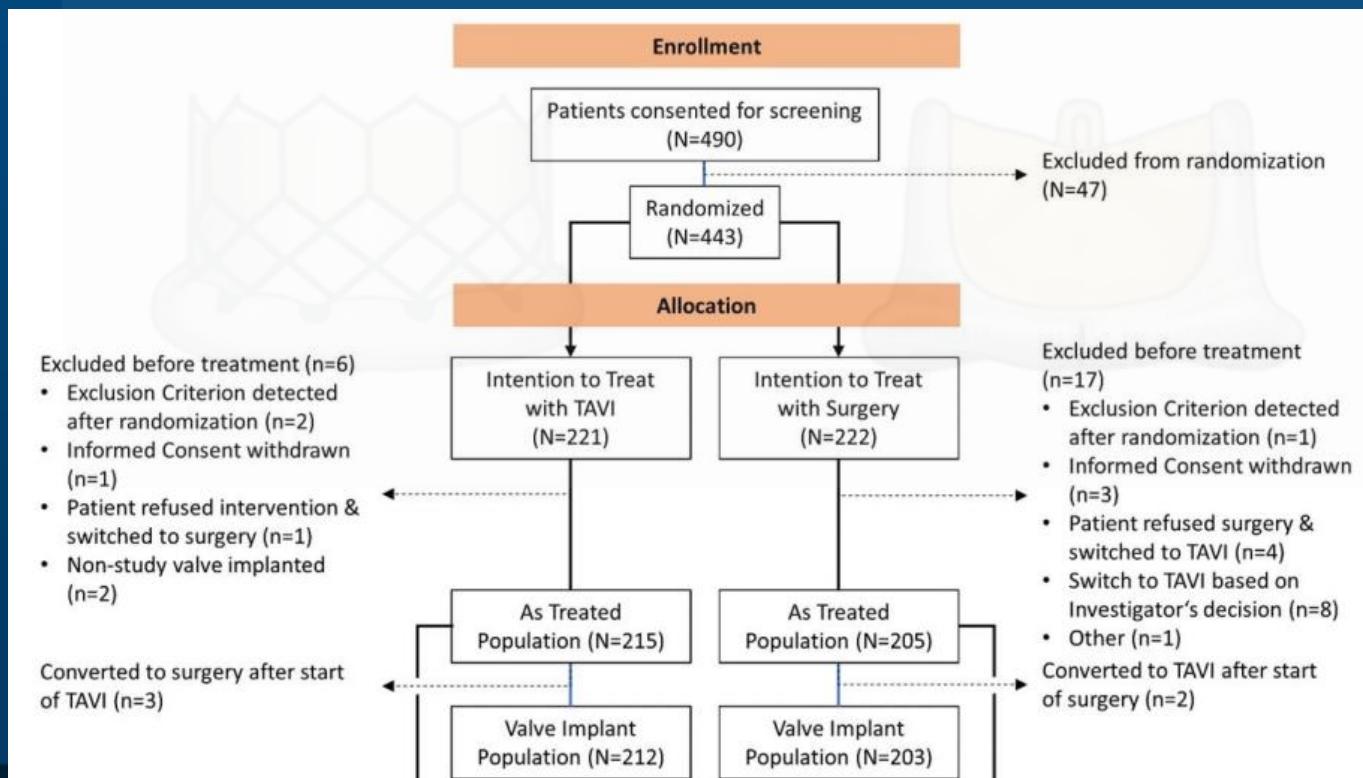


PARTNER III 1-Yr Women saw benefit with TAVR vs SAVR



Mack MJ et al. NEJM 2019;380:1695-705.

RHEIA 1-YR 1° EP Death, Stroke, Rehospitalization



Tchetché, D et al. EHJ 2025;46:2079-2088.

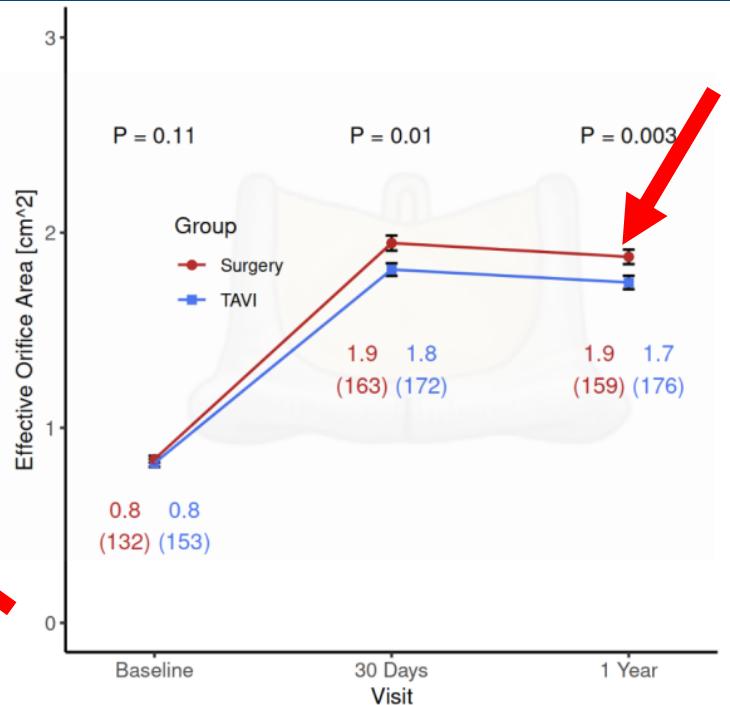
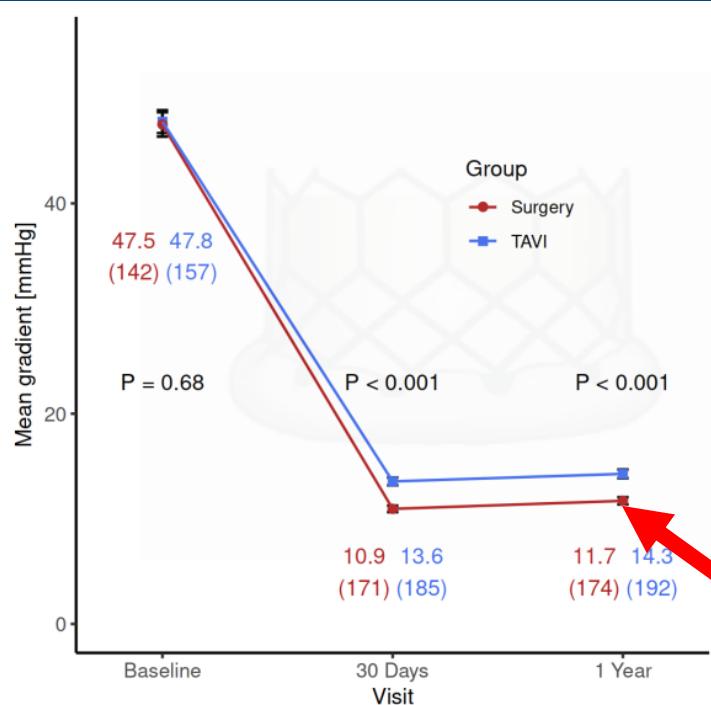
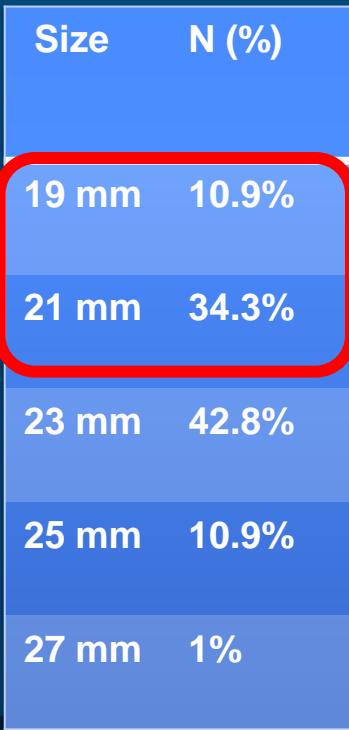
STS- Female sex 64% of S-PPM Smaller valves, higher gradients

SAVR	
Patients, n (%)	82 (17.7)
Patients with valve size \leq 23 mm, n (%)	54 (65.9)
Post-operative AG ^a (mmHg), mean \pm SD	14.3 \pm 8.2
AG in valve size \leq 23 mm, mean \pm SD	16.3 \pm 9.1
AG in valve size $>$ 23 mm, mean \pm SD	10.6 \pm 3.6
Post-operative mild AG, n (%)	73 (89.0)
Post-operative moderate/severe AG, n (%)	9 (11.0)

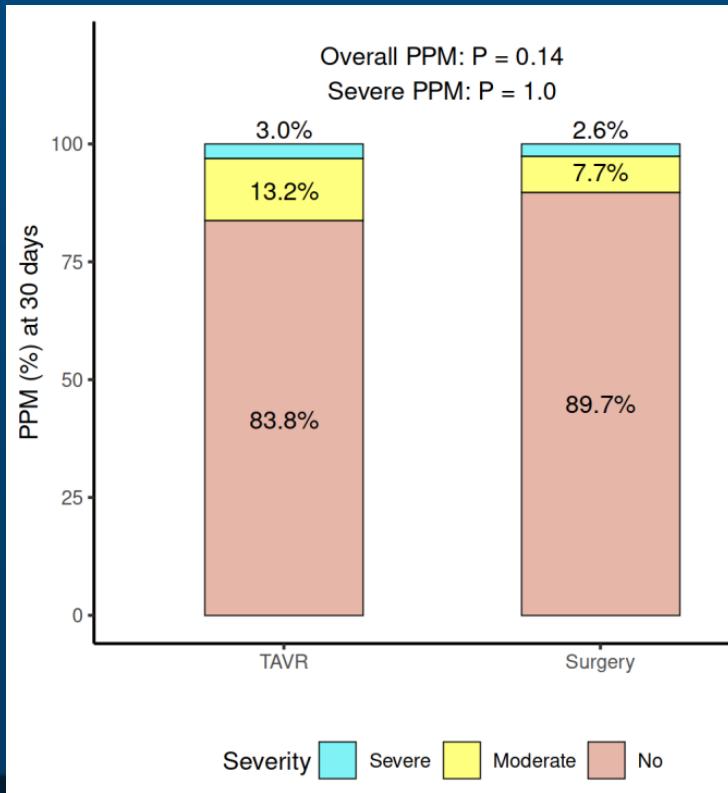
STS
Female sex
64% S-PPM

RHEIA

Surgical EOAi and gradients better with surgery?

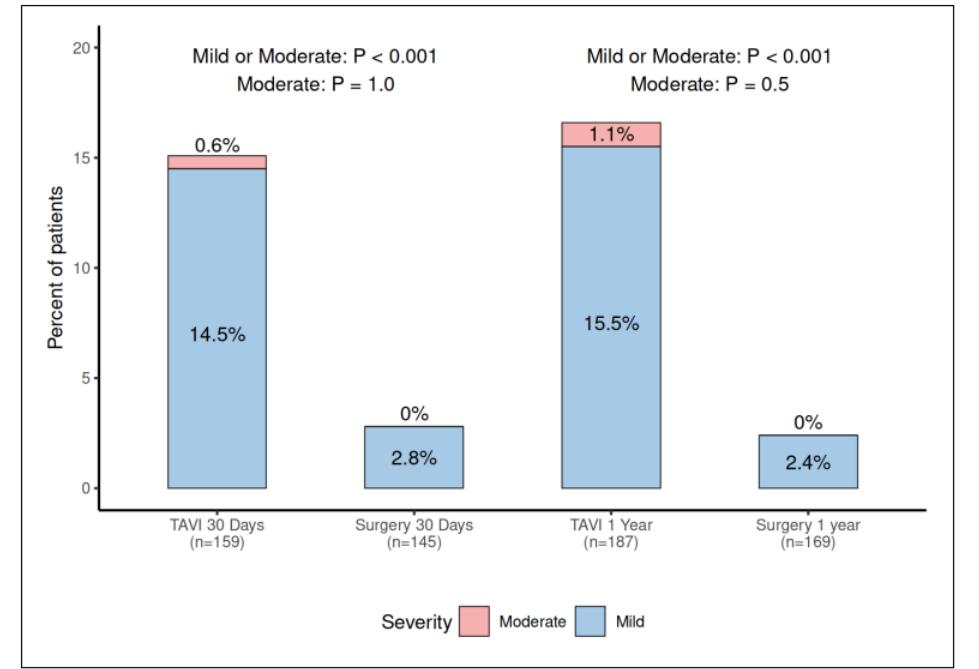
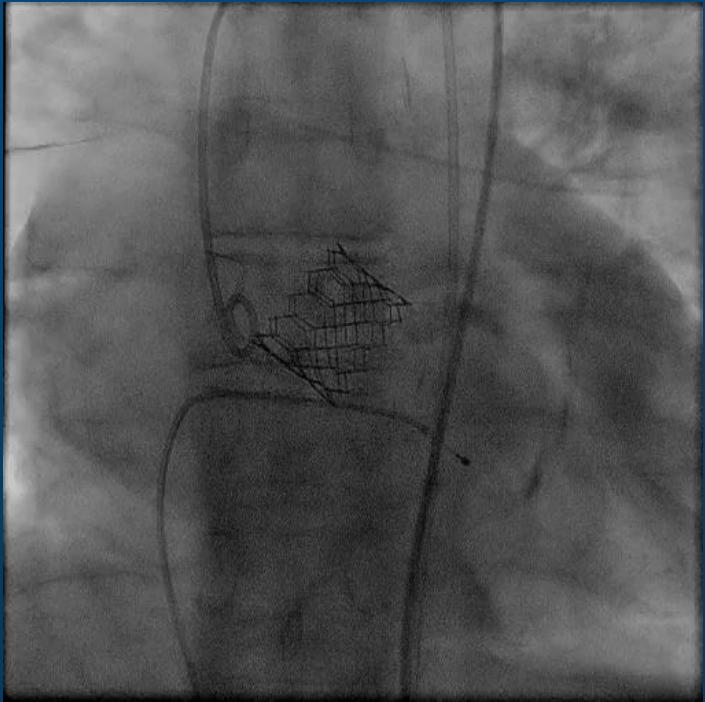


RHEIA 30-D ECHO PPM rates



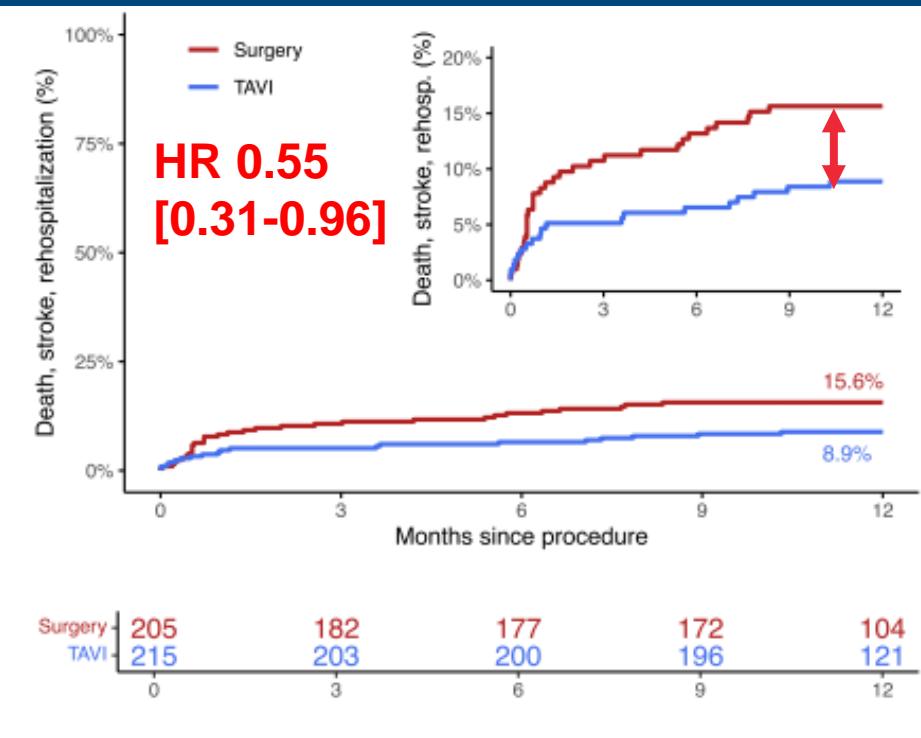
	TAVR	SAVR	P-value
$\geq 20 \text{ mmHg}$	10.8%	2.9%	0.004

RHEIA 30-D ECHO PVL Rates



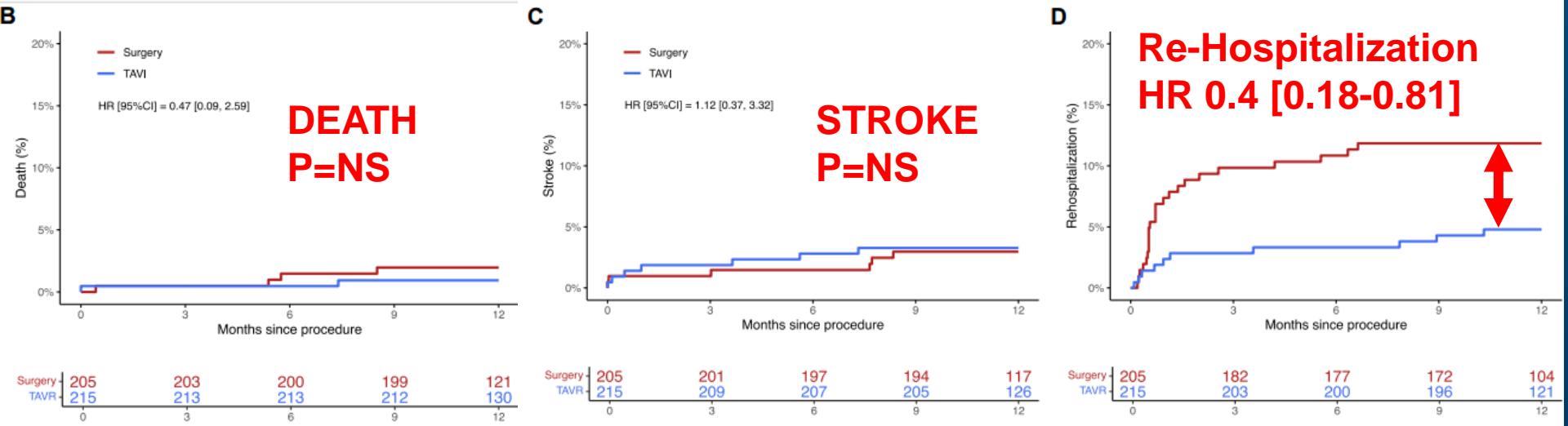
RHEIA

1° Endpoint: Death, Stroke, Rehospitalization



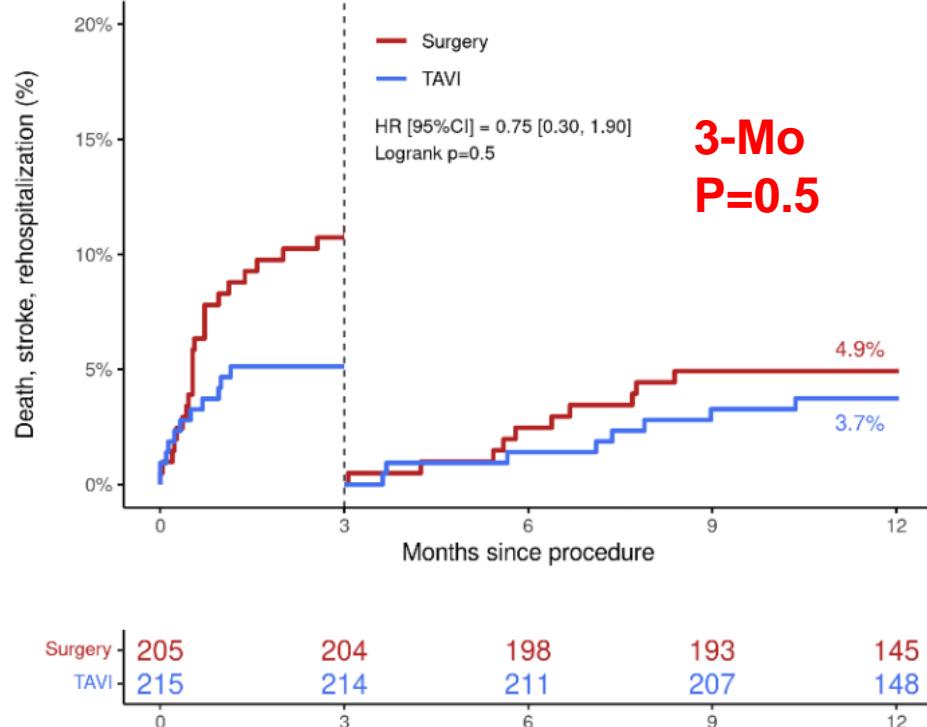
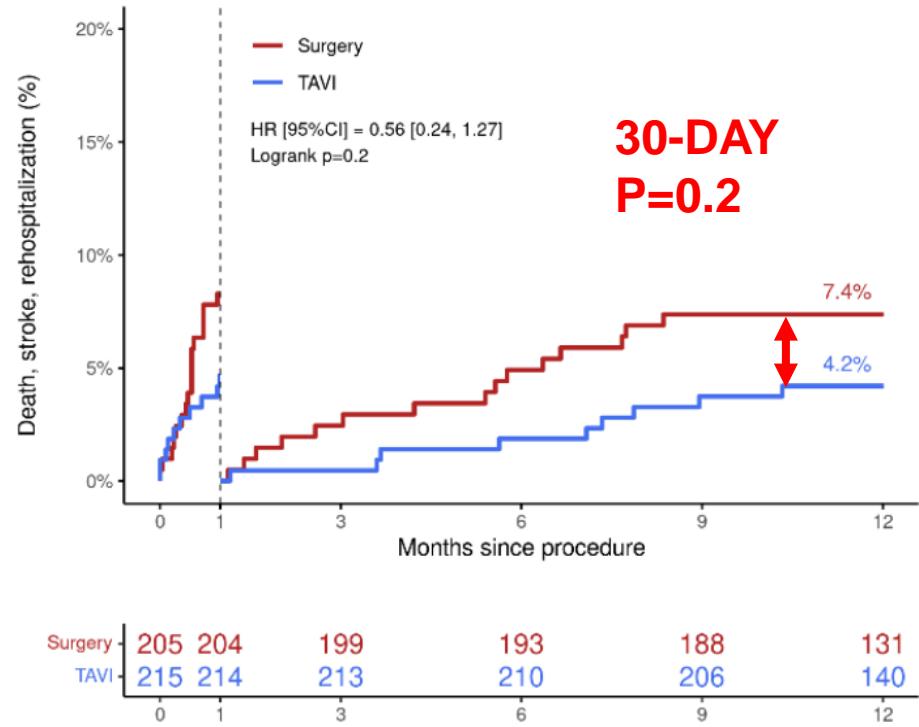
RHEIA

1° Endpoint Driven by Re-Hospitalization



RHEIA

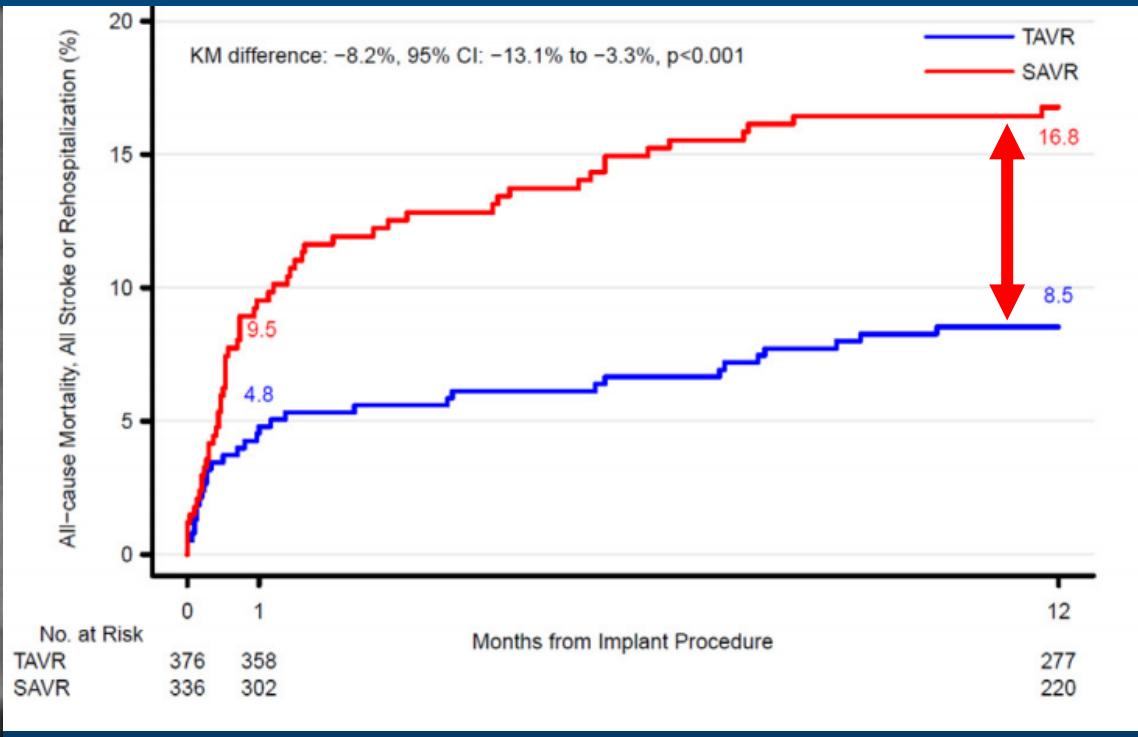
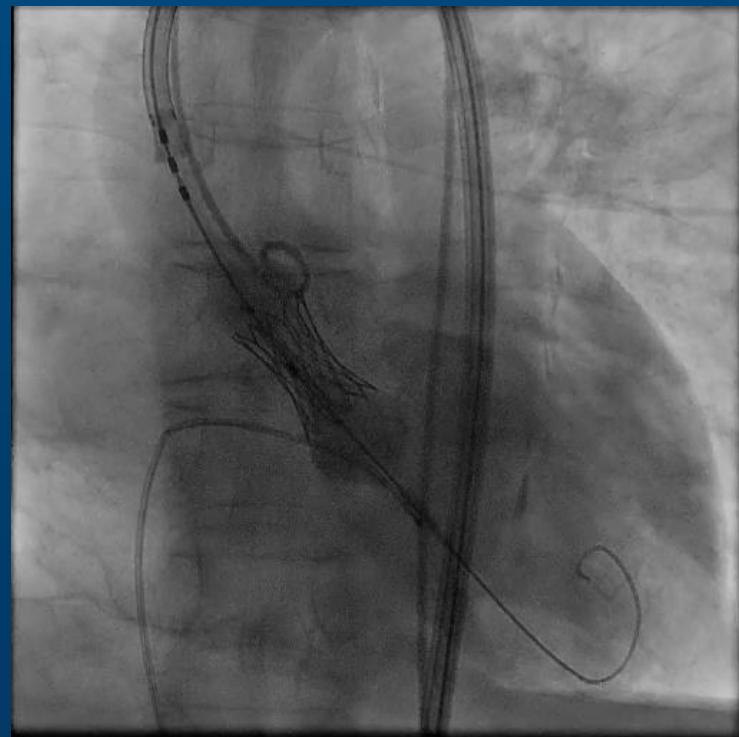
Most of Benefit of TAVR is EARLY



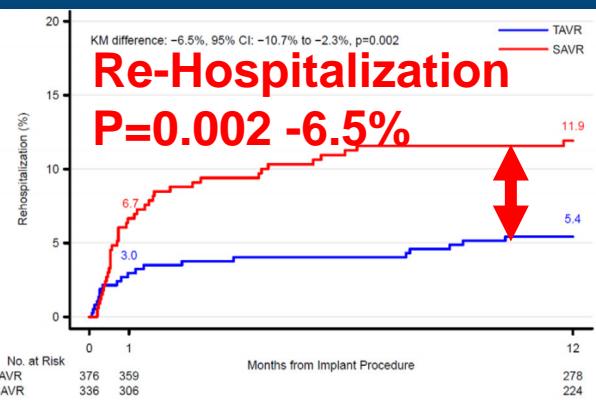
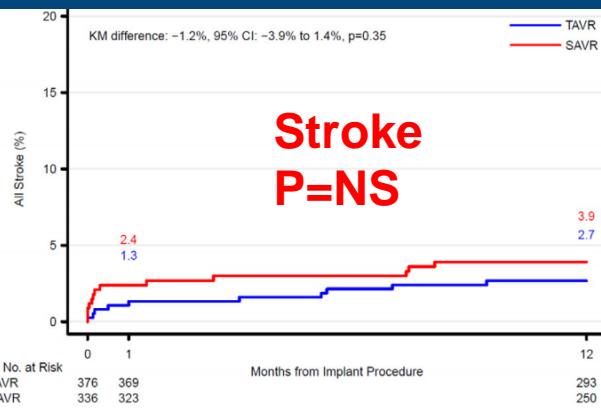
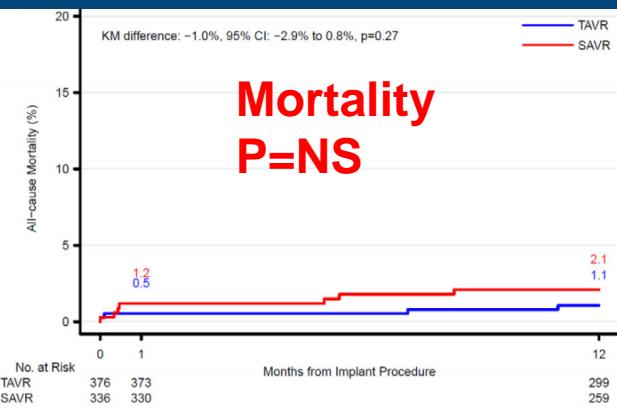
RHEIA Notable Endpoints

	TAVR	SAVR	CI
<i>Major Vascular</i>	3.3% > 0.5%		[0.2-5.3]
Bleeding (LT, major)	6%	10.7%	[-10-0.6]
AKI (Stage II/III)	0.9%	2.9%	[-4.6-0.6]
<i>New pacer</i>	8.8% > 2.9%		[1.5-10.4]
<i>New Atrial Fib.</i>	3.3% < 28.8%		[-32.2- -18.8]
<i>Discharge to Home</i>	90.2% > 49.8%		[32.6-48.4]

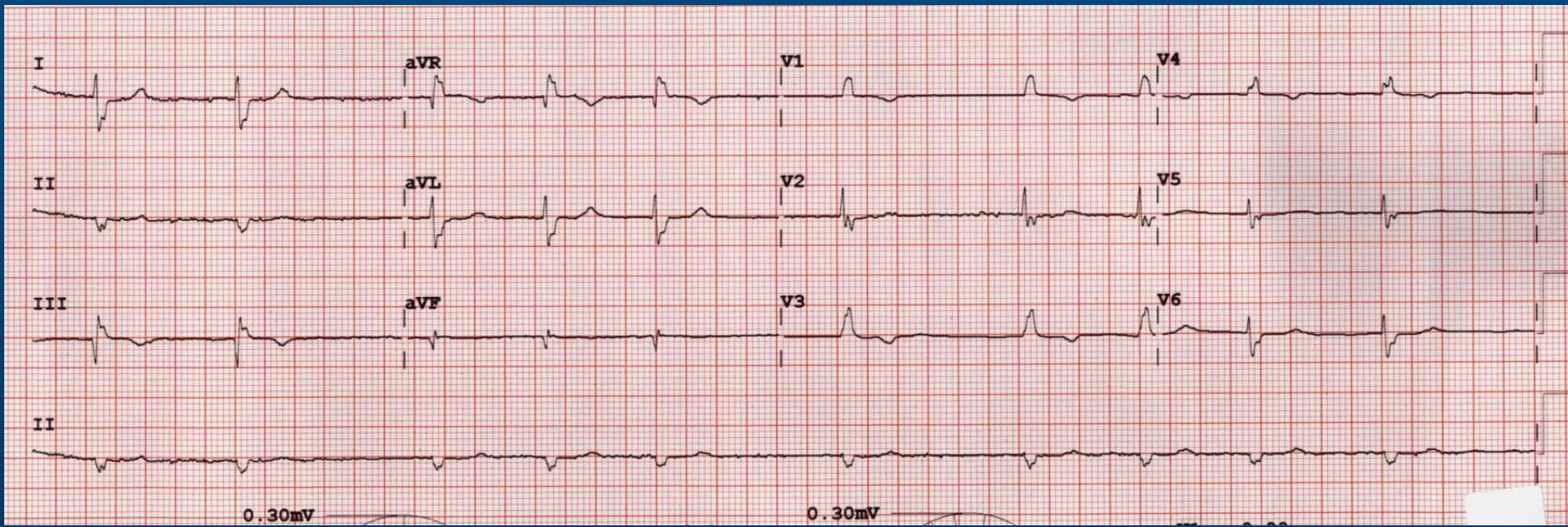
Pooled analysis PARTNER III and RHEIA



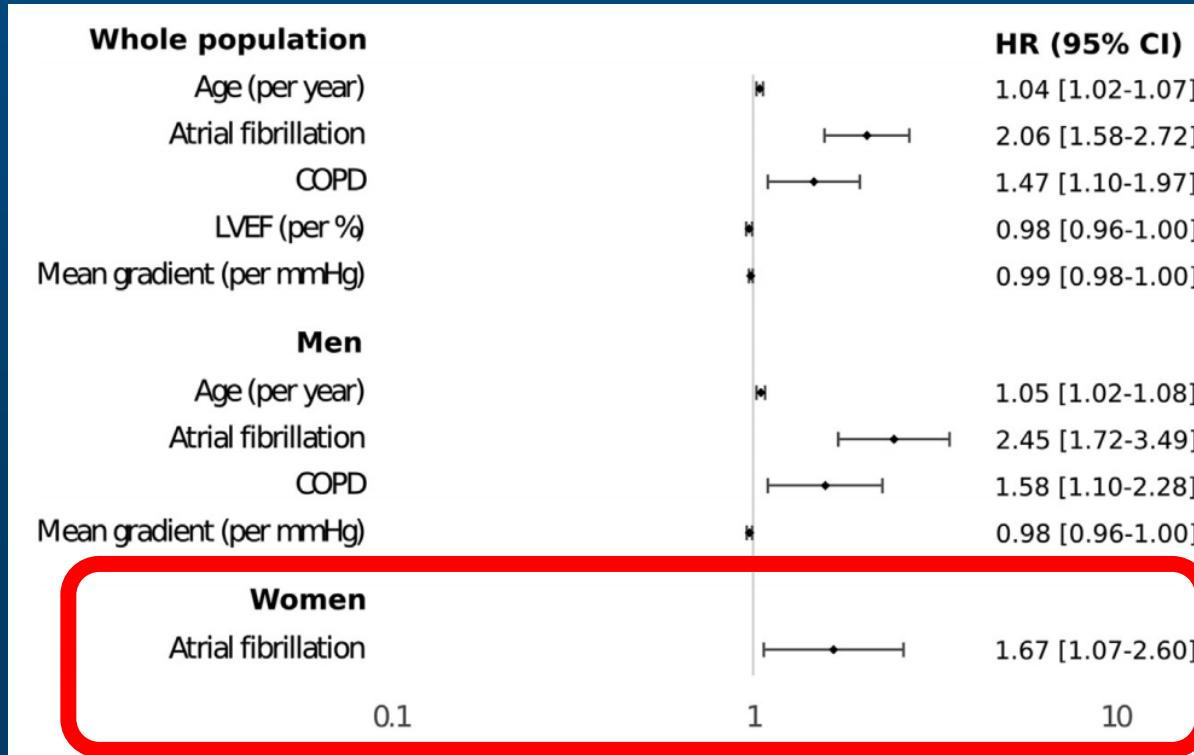
Pooled analysis PARTNER III and RHEIA 1-Yr 1° Endpoint Driven by Re-Hospitalization



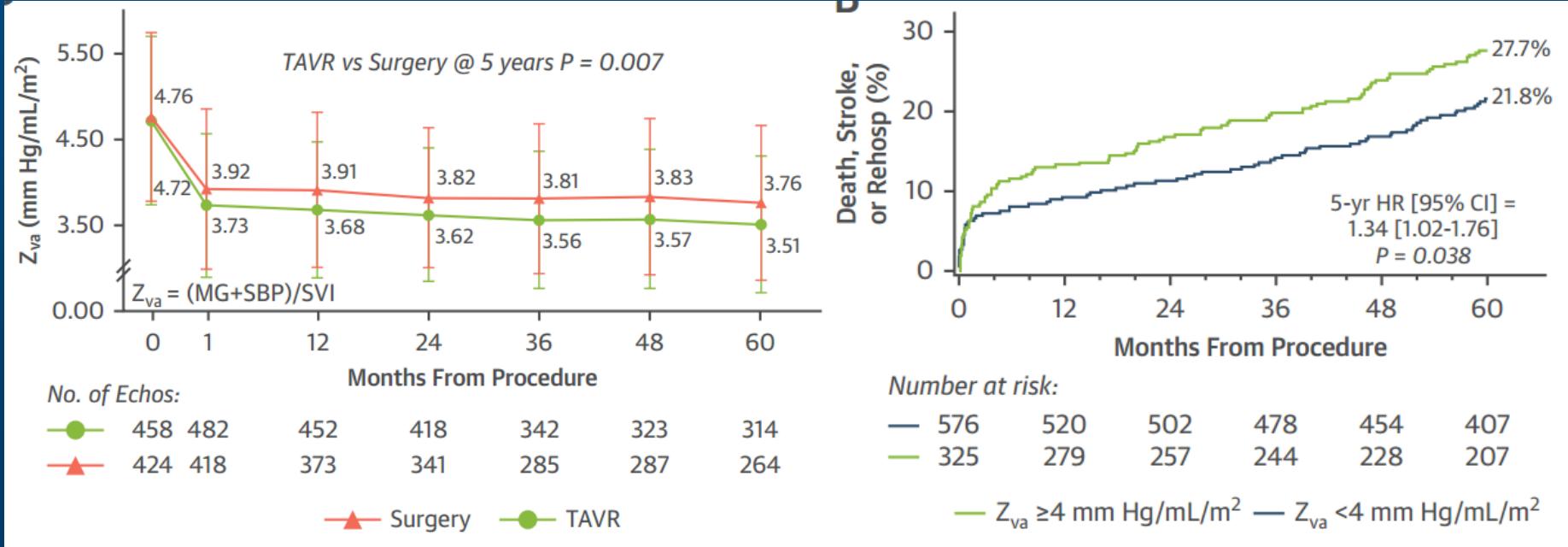
What is driving rehospitalization?



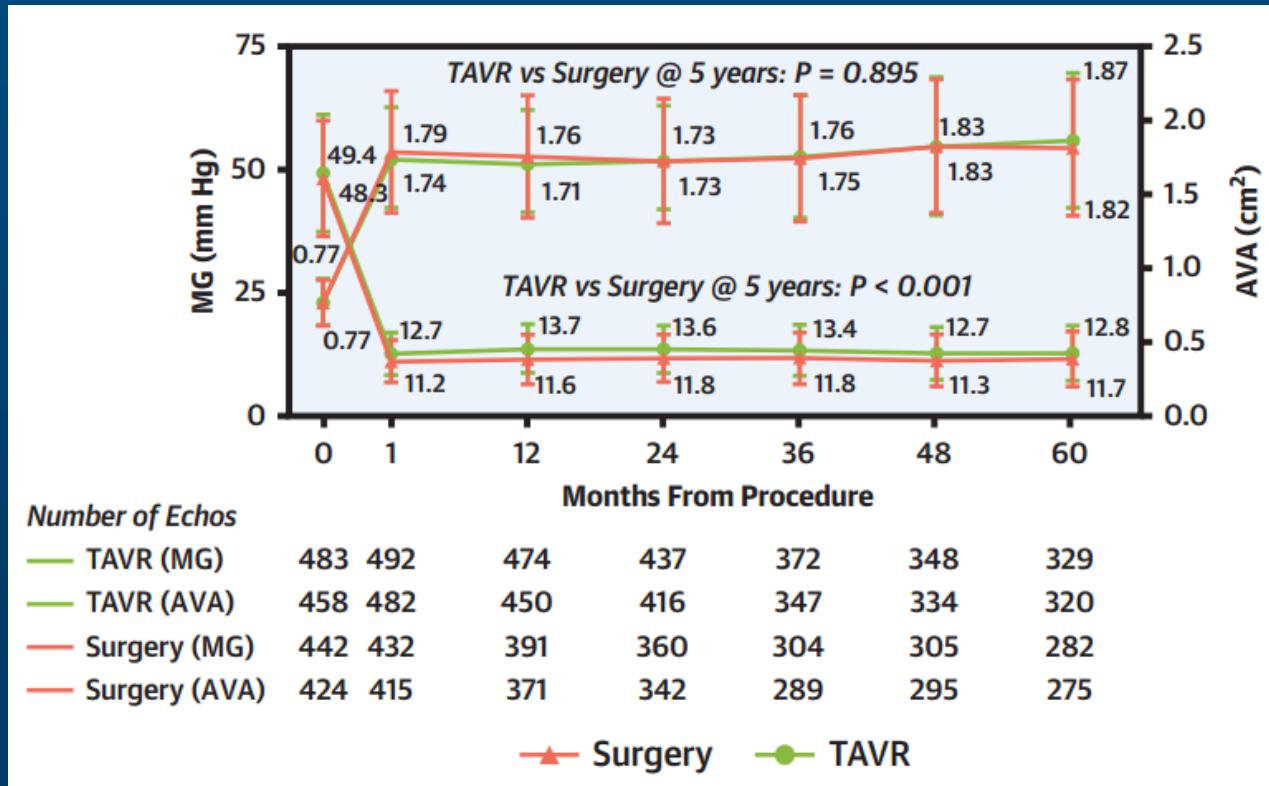
Predictors of Death or Rehospitalizations PARTNER II + III (2 Yr)



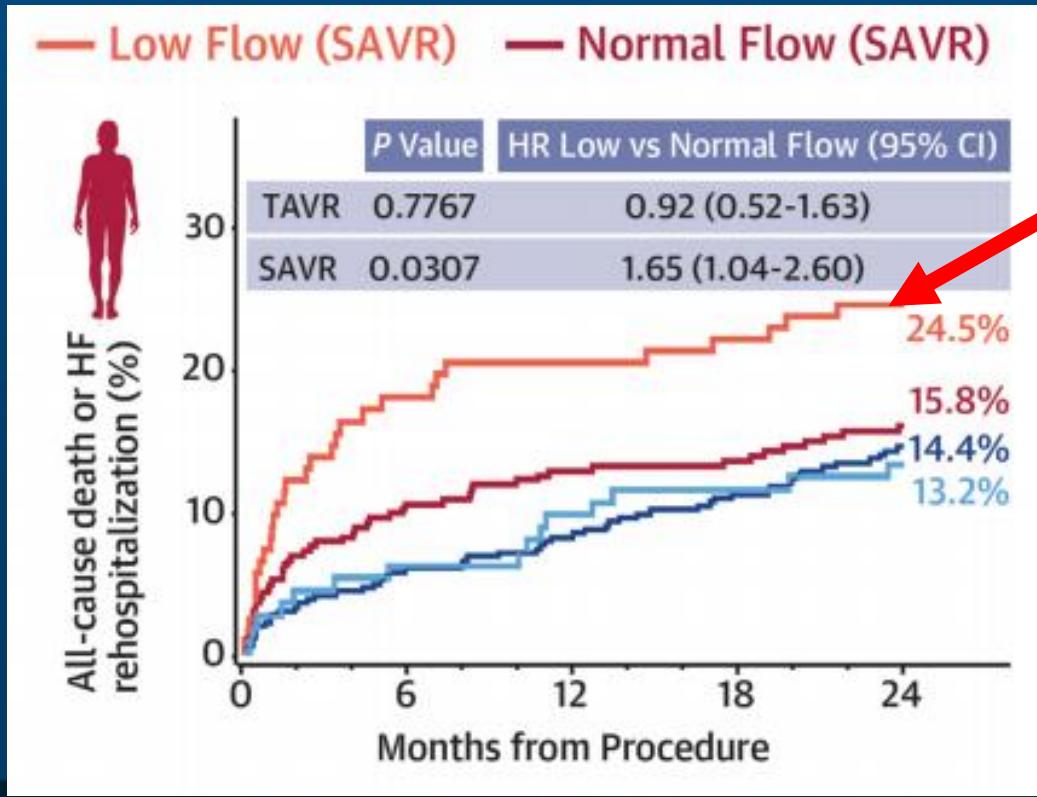
Valvulo-arterial impedance → higher in SAVR Higher Impedance → combined endpoint



TAVR and SAVR gradients/EOA stable over 5 yrs



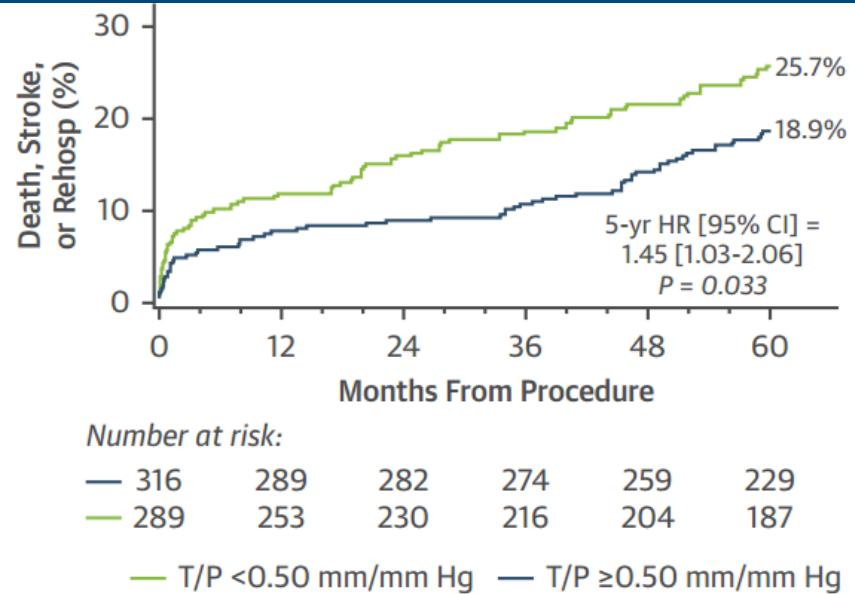
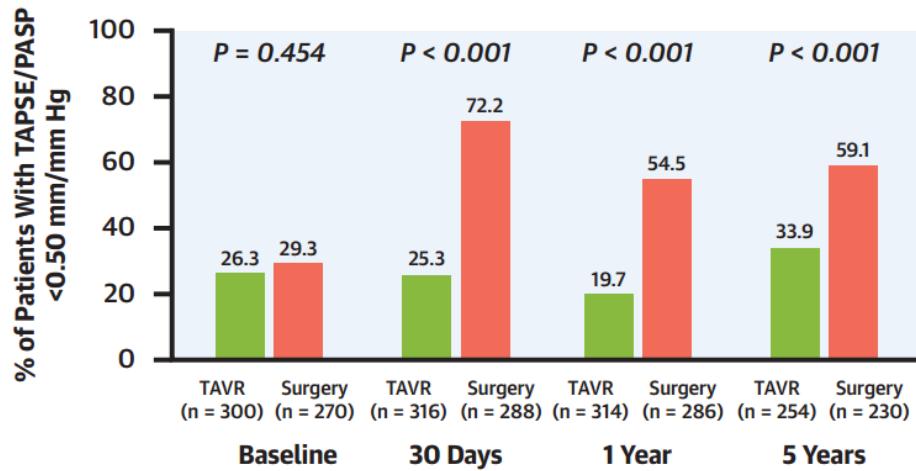
Low Svi- higher mortality/rehospitalization in Women with SAVR



Carter-Storch et al. JACC:Advances 2024;3:100853.

Higher rates of poor RV/PA coupling in SAVR Survival according to RV/PA coupling

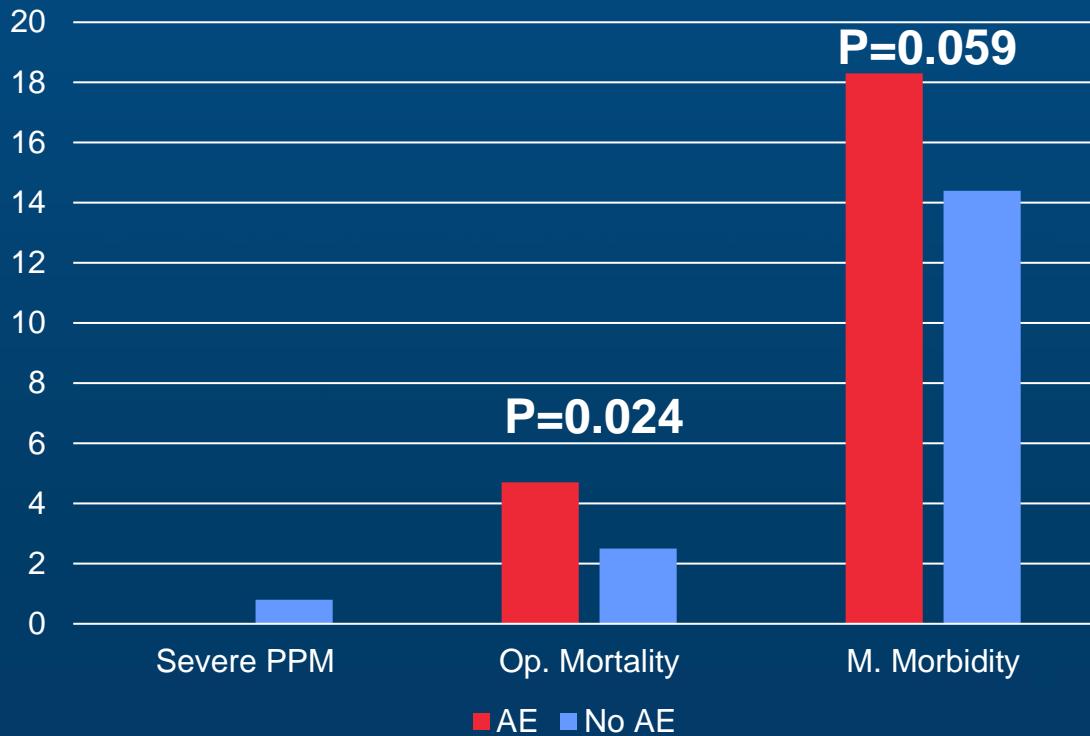
TAPSE/PASP <0.50 mm/mm Hg Through 5 Years by Treatment



Annular Enlargement- can it help?

STS Data AE

- 5% NET rate of AE
- ↑Mortality OR 2 ($p=0.016$)
- ↑Morbidity OR 1.4 ($p=0.016$)



SAVR+ Women: Re-Hospitalization Variables

- Atrial fibrillation
- Low-Flow
 - Atrial fibrillation
 - Chronic myocardial damage
 - RV dysfunction?
- Increased Valvuloarterial impedance
 - Net resistance of valve + vascular system
 - **Or lower SVI**
- Compromised RV-PA coupling
 - RV dysfunction/damage?
 - Pulmonary hypertension

