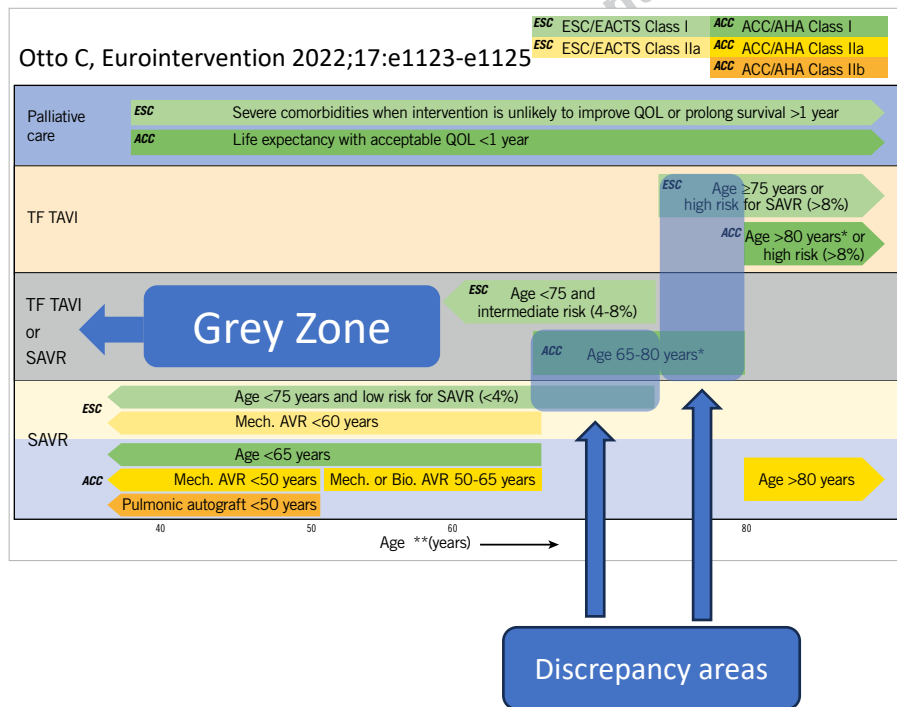


**Outcomes of SAVR according
to European and American
guidelines:
do we really need different
recommendations?**



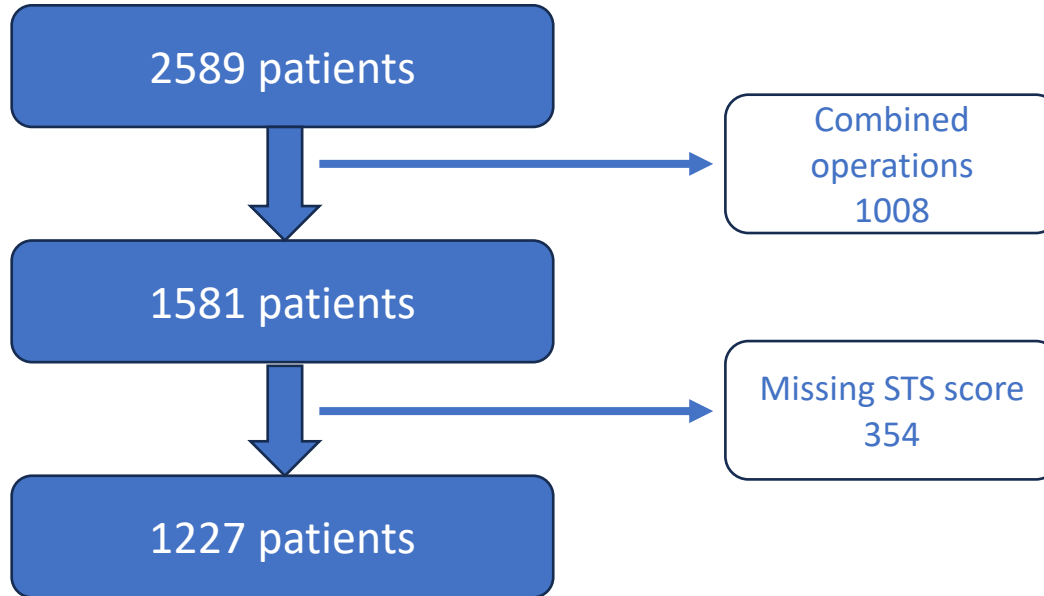
Background / Study Objective

- European and American guidelines provide slightly different recommendations for the treatment of aortic valve stenosis
- In particular, recommendations regarding the choice of intervention (SAVR or TAVR) differ between the two guidelines according to age and surgical risk.
- Some patients who have clear indications for SAVR or TAVR in one guideline fall in the grey zone of the other guideline and vice versa: these patients belong to the «*discrepancy areas*»
- ***Aim of this study was to compare early outcomes of isolated SAVR with bioprostheses in patients***
 - ***falling in the «discrepancy areas»***
 - ***with concordant indications to SAVR or TAVR***



Patients

- Multicenter retrospective study including patients undergoing surgical aortic valve replacement with bioprostheses
- 35 centers



Patients' distribution according to guidelines recommendations based on STS and age

		European Guidelines		
		Grey zone	SAVR	TAVR
American Guidelines	Grey zone	7 (0.5%)	396 (32.3%)	351 (28.6%)
	SAVR	1 (0.1%)	270 (22%)	0
	TAVR	0	0	202 (16.5%)

Concordant recommendations in **bold**

- Comparison of 30-day outcomes between
 1. Concordant SAVR vs. American Grey zone
 2. Concordant TAVR vs. American Grey zone
 3. Concordant SAVR vs. Concordant TAVR

Discrepancy areas



1-Baseline variable	Concordant SAVR (N=270)	American grey zone (N=396)	P-value
Age, years (IQR)	57 (50, 62)	71 (68, 73)	<0.001
Hypertension	145 (54%)	306 (77%)	<0.001
Diabetes	40 (15%)	90 (23%)	0.010
Extracardiac arteriopathy	16 (5.9%)	48 (12%)	0.008
COPD	20 (7.4%)	37 (9.4%)	0.4
Previous cardiac surgery	35 (13%)	13 (3.3%)	<0.001
GFR, mL/min (IQR)	93 (80, 103)	79 (66, 91)	<0.001
STS PROM, % (IQR)	0.87 (0.62, 1.16)	1.30 (0.99, 1.74)	<0.001

2-Baseline variable	Concordant TAVR (N=202)	American grey zone (N=351)	P-value
Age, years (IQR)	82 (81, 84)	78 (76, 79)	<0.001
Hypertension	170 (84%)	304 (87%)	0.4
Diabetes	40 (20%)	74 (21%)	0.7
Extracardiac arteriopathy	39 (19%)	48 (14%)	0.076
COPD	44 (22%)	46 (13%)	0.008
Previous cardiac surgery	6 (3.0%)	12 (3.4%)	0.8
GFR, mL/min (IQR)	56 (45, 71)	64 (51, 80)	<0.001
STS PROM, % (IQR)	3.05 (2.19, 4.31)	1.97 (1.45, 2.47)	<0.001

3-Baseline variable	Concordant TAVR (N=202)	Concordant SAVR (N=351)	P-value
Age, years (IQR)	82 (81, 84)	78 (76, 79)	<0.001
Hypertension	170 (84%)	304 (87%)	0.4
Diabetes	40 (20%)	74 (21%)	0.7
Extracardiac arteriopathy	39 (19%)	48 (14%)	0.076
COPD	44 (22%)	46 (13%)	0.008
Previous cardiac surgery	6 (3.0%)	12 (3.4%)	0.8
GFR, mL/min (IQR)	56 (45, 71)	64 (51, 80)	<0.001
STS PROM, % (IQR)	3.05 (2.19, 4.31)	1.97 (1.45, 2.47)	<0.001



Results 1: Baseline

1-Results	Concordant SAVR (N=270)	American grey zone (N=396)	P-value
VARC 30-d mortality	0 (0%)	2 (0.5%)	0.7
AKI	9 (6.6%)	5 (3.3%)	0.5
VARC-All Strokes	2 (0.7%)	7 (1.8%)	0.8
Hospital stay	7.0 (6.0, 9.0)	8.0 (7.0, 10.0)	0.004
ICU stay, hours (IQR)	36 (24, 48)	36 (24, 48)	0.002
Discharge <ul style="list-style-type: none"> • Home • Rehab • Other ICU 	97 (36%) 173 (64%) 0 (0%)	65 (16%) 329 (83%) 0 (0%)	<0.001

2-Results	Concordant TAVR (N=202)	American grey zone (N=351)	P-value
VARC 30-d mortality	6 (1.7%)	2 (1.0%)	0.9
AKI	10 (8.8%)	8 (14%)	0.8
VARC-All Strokes	9 (2.6%)	5 (2%)	0.9
Hospital stay	8.0 (7.0, 10.5)	8.0 (7.0, 11.0)	0.8
ICU stay, hours (IQR)	47 (24, 51)	48 (24, 70)	0.8
Discharge <ul style="list-style-type: none"> • Home • Rehab • Other ICU 	18 (8.9%) 301 (86%) 1 (0.3%)	43 (12%) 182 (90%) 0 (0%)	0.9

Results 2: 30-day

3-Results	Concordant SAVR (N=270)	Concordant TAVR (N=202)	P-value
VARC 30-d mortality	0 (0%)	2 (1.0%)	0.3
AKI	9 (6.6%)	8 (14%)	0.2
VARC-All Strokes	2 (0.7%)	5 (2%)	0.2
Hospital stay	7.0 (6.0, 9.0)	8.0 (7.0, 11.0)	<0.001
ICU stay, hours (IQR)	36 (24, 48)	48 (24, 70)	<0.001
Discharge <ul style="list-style-type: none"> • Home • Rehab • Other ICU 	97 (36%) 173 (64%) 0 (0%)	18 (8.9%) 182 (90%) 0 (0%)	<0.001



Conclusion

- According to our data, American and European guidelines have similar indications for 39% of patients with severe aortic stenosis who are scheduled for isolated SAVR
- Approximately 60% of our patients fell into the 65-80-year-old grey zone of the American guidelines
- When comparing these patients with those having clear indications for SAVR or TAVR in the European guidelines, we found that baseline variables differed, but mortality and stroke rates were similar. Patients with concordant SAVR indications were more likely to experience shorter hospital stays and to be discharged home
- Patients with concordant indications for SAVR or TAVR in both guidelines exhibited similar mortality and stroke rates. However, those with SAVR indications were more likely to have shorter hospital stays and to be discharged home
- In conclusion, despite discordant indications between the guidelines, SAVR patients showed similar outcomes across all groups. These findings reinforce the need for an **«intersociety discussion»** about the opportunity to produce joint guidelines for both sides of the Atlantic Ocean

