



WORKSHOP ONLINE

Risultati dello studio  BSERVANT II

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Conflitto d'interessi / rapporti con l'industria: nessuno

One-year Outcomes after Surgical versus Transcatheter Aortic Valve Replacement with Newer Generation Devices

Stefano Rosato, Fausto Biancari, Paola D'Errigo, Marco Barbanti, Giuseppe Tarantini, Francesco Bedogni, Marco Ranucci, Giuliano Costa, Tatu Juvonen, Gian Paolo Ussia, Andrea Marcellusi, Giovanni Baglio, Stefano Domenico Cicala, Gabriella Badoni, Fulvia Seccareccia, Corrado Tamburino, the OBSERVANT II Research Group

5706 AS patients who underwent SAVR from 2010 and 2012
and 2989 AS patients who underwent TAVR from 2017 and
2018 from the prospective multicenter observational studies
OBSERVANT I and II.

5 706 patients who underwent SAVR from December 1, 2010 to June 30, 2012

2 989 patients who underwent TAVR from December 1, 2016 to September 30, 2018

154 Excluded for no link with outcome information systems

50 Excluded for no link with outcome information systems

202 Excluded

- 5** Aged <30 y
- 16** Emergency procedure
- 57** Endocarditis
- 64** Porcelain aorta
- 29** Hostile chest
- 31** Severe frailty

419 Excluded

- 2** Aged <30 y
- 184** Older generation devices
- 3** Emergency procedure
- 11** Endocarditis
- 132** Porcelain aorta
- 71** Hostile chest
- 16** Severe frailty

5 350 SAVR patients

2 520 TAVR patients

Propensity score matching

1 008 SAVR patients

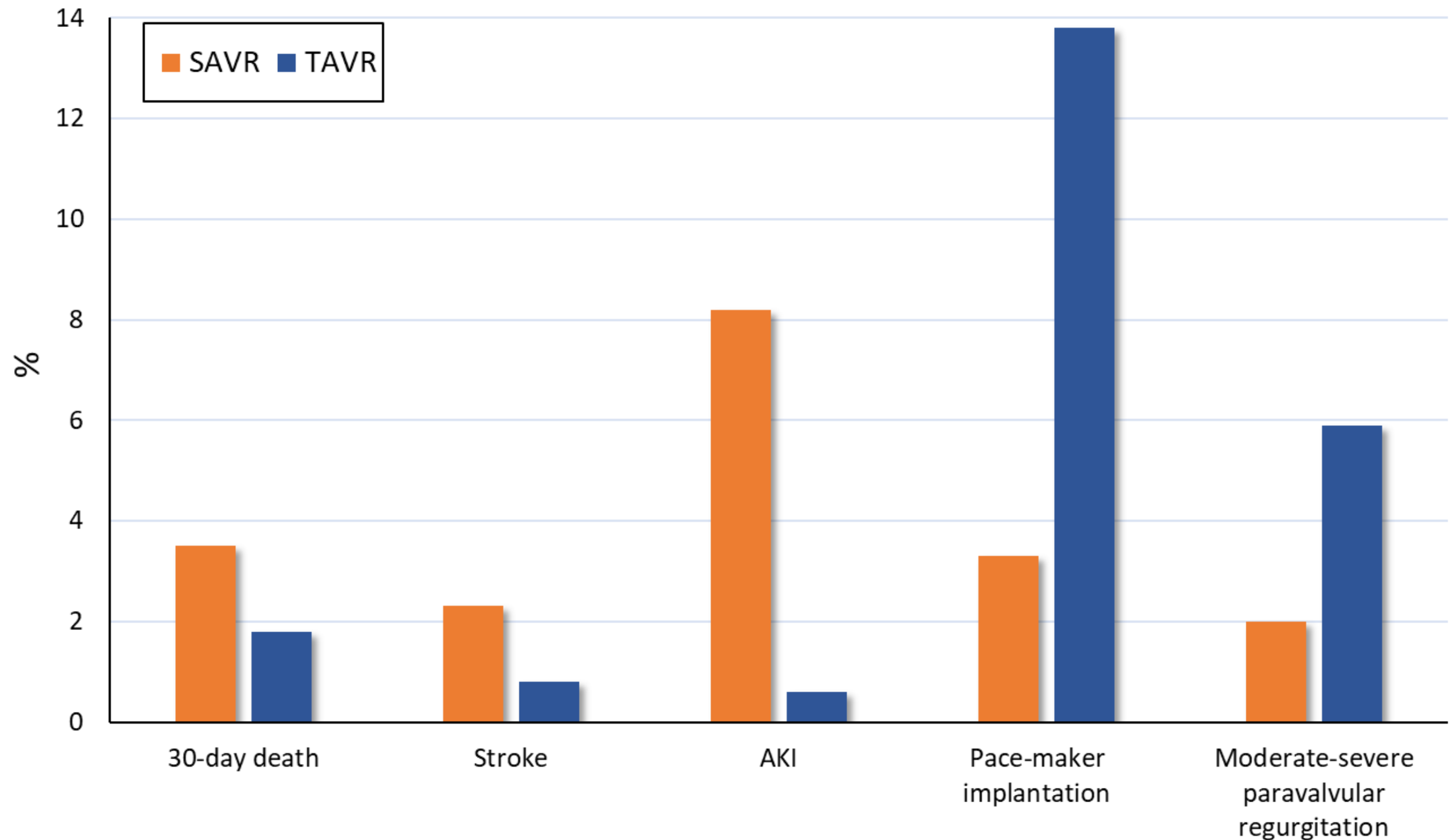
1 008 TAVR patients

Baseline characteristics of propensity score matched patients.

Variables	SAVR (n = 1008)	TAVR (n = 1008)	P-value
Age (years)	79.3 (5.5)	79.5 (6.7)	0.357
Female	567 (56.3)	557 (55.3)	0.651
EuroSCORE II (%)	4.5 (5.7)	4.7 (4.0)	0.419
Hemoglobin (g/dL)	12.3 (1.6)	12.0 (1.7)	<0.001
Dialysis	20 (2.0)	18 (1.8)	0.739
GSS classes			0.895
0	688 (68.3)	680 (67.5)	
1	203 (20.1)	200 (19.8)	
2	117 (11.6)	128 (12.7)	
Extracardiac arteriopathy	159 (15.8)	171 (17.0)	0.476
Pulmonary disease	151 (15.0)	132 (13.1)	0.225
Oxygen therapy	20 (2.0)	23 (2.3)	0.639
Prior cardiac surgery	66 (6.5)	76 (7.5)	0.369
Prior myocardial infarction			0.329
No	906 (89.9)	885 (87.8)	
Within 90 days from procedure	21 (2.1)	25 (2.5)	
More than 90 days from procedure	81 (8.0)	98 (9.7)	
Critical preoperative state	19 (1.9)	18 (1.8)	0.869
No. of diseased coronary arteries			0.238
0	765 (75.9)	756 (75.0)	
1	135 (13.4)	131 (13.0)	
2	65 (6.4)	58 (5.8)	
3	43 (4.3)	63 (6.3)	
Left ventricular ejection fraction (%)	55.1 (10.4)	55.0 (11.0)	0.832
Mitral valve regurgitation			0.980
None/trace	251 (24.9)	248 (24.6)	
Mild	539 (53.5)	534 (53.0)	
Moderate	189 (18.8)	196 (19.4)	
Severe	29 (2.9)	30 (3.0)	
Concomitant coronary revascularization	117 (11.6)	109 (10.8)	0.566

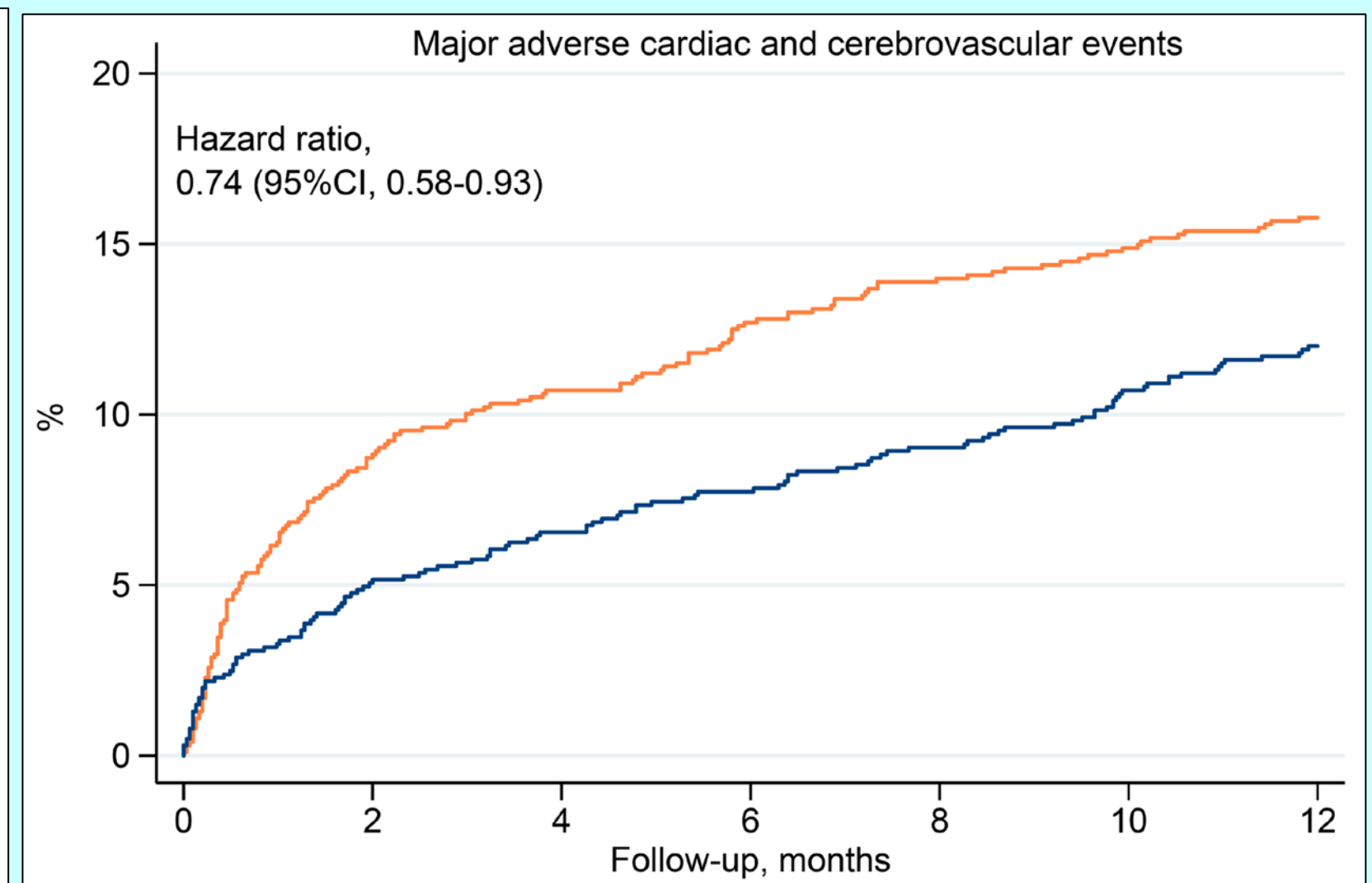
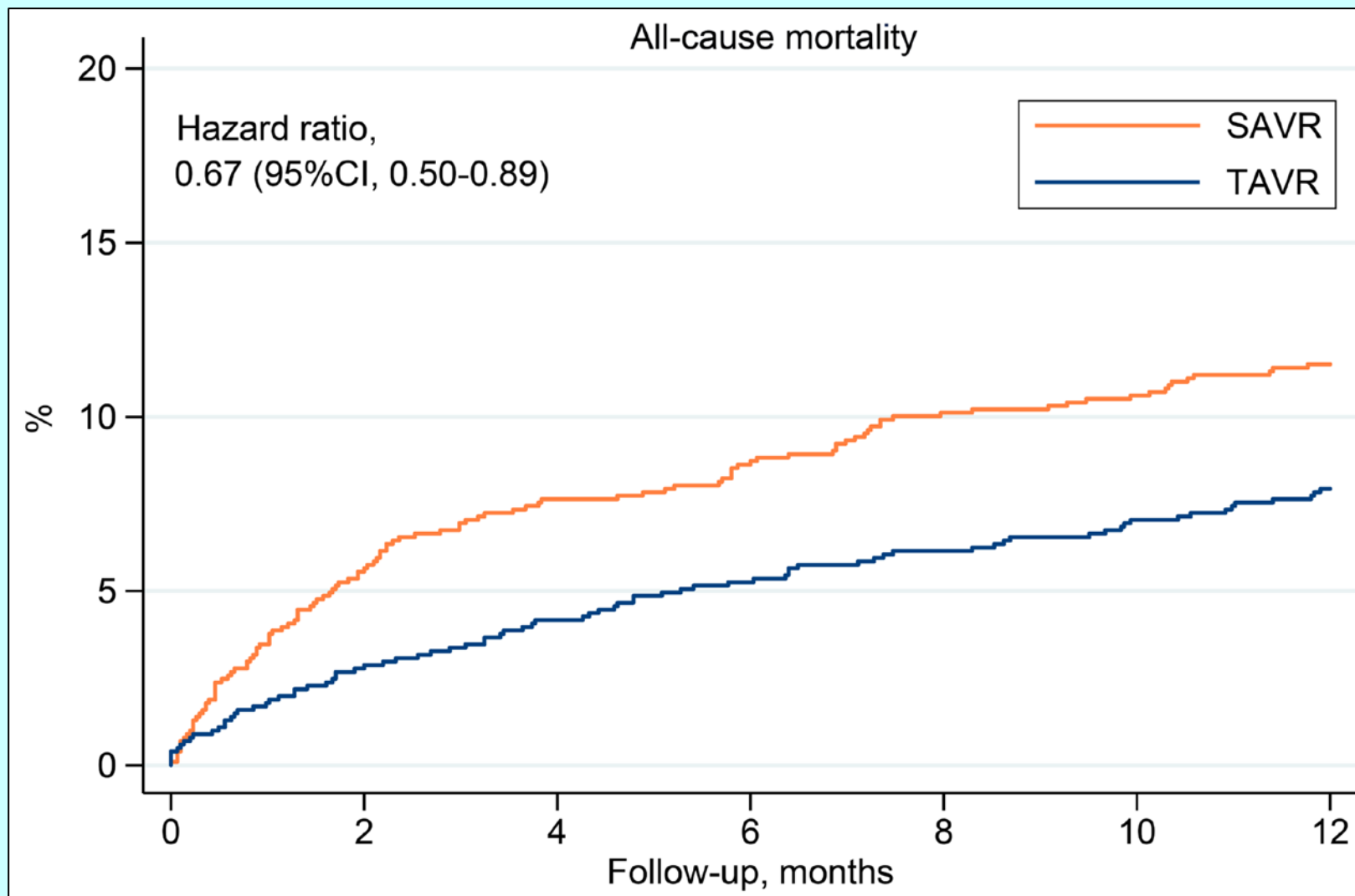
Outcomes following TAVR and SAVR in 1008 propensity score matched pairs

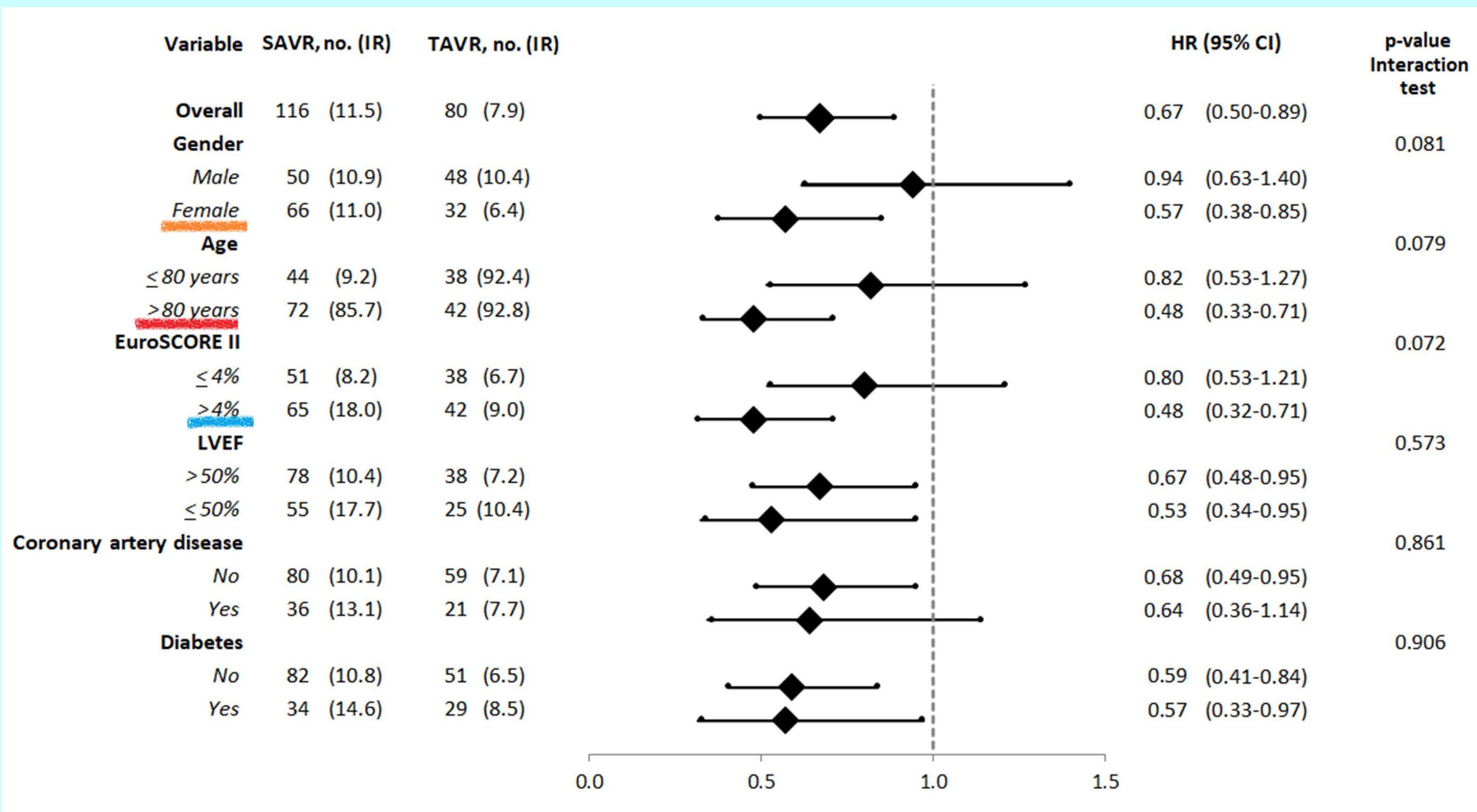
Early outcomes



Outcomes following TAVR and SAVR in 1008 propensity score matched pairs

1-year outcomes





One-year outcomes in propensity score matched patients.

1-year outcomes	SAVR (n = 1008)	TAVR (n = 1008)	P-value	HR/SHR, 95%CI*
Death	11.5%	7.9%	0.006	0.67, 0.50-0.89
MACCE	15.8%	12.0%	0.011	0.74, 0.58-0.93
Readmission due to heart failure	15.9%	10.8%	<0.001	0.66, 0.52-0.85
Reoperation for aortic valve prosthesis complications	0.3%	0.4%	0.705	1.33, 0.30-5.96
Permanent pacemaker implantation	6.4%	16.2%	<0.001	2.77, 2.09-3.68
Stroke	5.1%	3.2%	0.033	0.62, 0.40-0.97
Myocardial infarction	1.8%	1.6%	0.728	0.89, 0.45-1.74
Percutaneous coronary intervention	0.2%	1.3%	0.004	6.54, 1.48-28.94
Coronary artery bypass grafting	0	0	-	-

Conclusions

In a real-world setting, TAVR using new-generation devices was associated with lower rates of adverse events up to 1-year follow-up compared to SAVR