

Comparing balloon-expandable and self-expanding transfemoral transcatheter aortic valve replacement based on subgroups in Germany 2019/2020

Vera Oettinger, MD, M.Sc.; Ingo Hilgendorf, MD; Dennis Wolf, MD; Jonathan Rillinger, MD; Alexander Maier, MD; Manfred Zehender, MD, PhD; Dirk Westermann, MD; Klaus Kaier, PhD; Constantin von zur Mühlen, MD

Supplementary Appendix 1: Regression results of patients treated with balloon-expandable or self-expanding transfemoral TAVR in Germany in 2019 and 2020

patients (N=46,243)	In-hospital mortality				Bleeding (>5 units)				Stroke				Acute kidney injury				Postoperative delirium				Mechanical ventilation >48h				Permanent pacemaker implantation				Length of stay				Reimbursement			
	OR	p-value	95%CI		OR	p-value	95%CI		OR	p-value	95%CI		OR	p-value	95%CI		OR	p-value	95%CI		OR	p-value	95%CI		Coeff	p-value	95%CI		Coeff	p-value	95%CI					
	0.98	0.799	0.86	1.13	0.83	0.006	0.73	0.95	1.38	0.000	1.19	1.59	1.05	0.180	0.98	1.14	1.15	0.001	1.06	1.24	1.01	0.871	0.88	1.17	1.29	0.000	1.21	1.37	0.19	0.066	-0.01	0.39	117	0.099	-22	257
Conducted in 2020 (instead of 2019)	0.94	0.302	0.83	1.06	0.93	0.228	0.83	1.05	1.10	0.128	0.97	1.25	0.97	0.424	0.91	1.04	0.93	0.055	0.87	1.00	0.83	0.004	0.73	0.94	1.01	0.793	0.95	1.06	-0.82	0.000	-1.05	-0.59	-2,326	0.000	-2,471	-2,180
Self-expanding (instead of balloon-expandable)	1.03	0.000	1.02	1.05	1.01	0.117	1.00	1.02	1.17	0.000	1.16	1.18	1.02	0.000	1.01	1.03	1.02	0.000	1.01	1.03	1.03	0.000	1.02	1.04	1.00	0.751	0.99	1.01	0.12	0.000	0.09	0.14	44	0.000	22	67
Age in years	1.00	0.683	0.98	1.01	0.97	0.000	0.96	0.98	0.91	0.000	0.90	0.92	1.00	0.235	0.99	1.00	1.03	0.000	1.03	1.04	0.94	0.000	0.93	0.96	1.02	0.000	1.01	1.02	-0.08	0.000	-0.10	-0.06	-72.84	0.000	-92.36	-53.31
Female	1.05	0.468	0.92	1.21	1.33	0.000	1.17	1.52	0.69	0.000	0.60	0.79	0.88	0.001	0.81	0.95	0.64	0.000	0.59	0.69	0.94	0.377	0.81	1.08	0.74	0.000	0.70	0.79	0.20	0.012	0.04	0.35	-235	0.000	-343	-127
NYHA II	0.35	0.000	0.25	0.49	0.62	0.000	0.49	0.80	0.93	0.497	0.75	1.15	0.90	0.087	0.79	1.02	0.91	0.138	0.81	1.03	0.50	0.000	0.36	0.68	0.95	0.235	0.87	1.04	0.15	0.320	-0.14	0.44	68	0.398	-90	227
NYHA III or IV	1.81	0.000	1.56	2.10	1.64	0.000	1.42	1.90	1.12	0.149	0.96	1.29	2.06	0.000	1.90	2.24	1.23	0.000	1.13	1.34	1.92	0.000	1.64	2.24	1.04	0.253	0.97	1.11	1.76	0.000	1.34	2.18	707	0.000	486	928
CAD	1.12	0.102	0.98	1.27	1.20	0.005	1.06	1.37	1.07	0.329	0.93	1.23	1.18	0.000	1.10	1.27	1.09	0.023	1.01	1.17	1.27	0.001	1.11	1.46	0.99	0.754	0.93	1.05	0.44	0.000	0.27	0.62	181	0.000	87	276
Hypertension	0.71	0.000	0.62	0.82	0.71	0.000	0.62	0.82	1.02	0.816	0.88	1.18	0.88	0.002	0.82	0.95	1.01	0.886	0.93	1.09	0.76	0.000	0.65	0.87	0.98	0.599	0.92	1.05	-0.28	0.030	-0.53	-0.03	-311	0.003	-517	-104
Previous MI within 4 months	0.52	0.030	0.29	0.94	1.07	0.785	0.67	1.69	0.39	0.000	0.24	0.63	1.10	0.465	0.86	1.40	0.68	0.016	0.50	0.93	0.75	0.299	0.44	1.29	1.04	0.730	0.83	1.30	-0.92	0.007	-1.59	-0.25	-522	0.022	-968	-76
Previous MI within 1 year	0.91	0.806	0.45	1.87	1.01	0.964	0.53	1.95	0.84	0.687	0.36	1.94	0.91	0.651	0.62	1.35	0.72	0.167	0.45	1.15	0.74	0.453	0.34	1.62	1.01	0.950	0.72	1.42	0.17	0.695	-0.70	1.05	-301	0.395	-995	393
Previous MI after 1 year	1.08	0.580	0.82	1.44	0.75	0.078	0.55	1.03	0.80	0.195	0.56	1.12	1.05	0.533	0.90	1.22	0.90	0.253	0.76	1.07	0.86	0.362	0.63	1.18	1.04	0.546	0.91	1.19	0.02	0.909	-0.36	0.41	-89	0.579	-404	226
Previous CABG	0.65	0.005	0.49	0.88	0.46	0.000	0.34	0.62	0.79	0.189	0.55	1.13	0.81	0.024	0.68	0.97	0.67	0.000	0.55	0.83	0.52	0.000	0.38	0.72	0.59	0.000	0.51	0.68	-2.11	0.000	-2.85	-1.37	-757	0.000	-1,164	-351
Previous cardiac surgery	1.12	0.449	0.83	1.51	1.74	0.000	1.32	2.31	0.11	0.000	0.08	0.15	0.97	0.748	0.81	1.16	0.85	0.107	0.69	1.04	1.10	0.540	0.81	1.48	1.54	0.000	1.33	1.79	0.16	0.670	-0.58	0.90	76	0.684	-289	440
Peripheral vascular disease	1.24	0.048	1.00	1.53	1.47	0.000	1.20	1.81	0.38	0.000	0.30	0.48	1.11	0.091	0.98	1.26	0.94	0.357	0.82	1.08	1.23	0.066	0.99	1.52	1.01	0.844	0.91	1.13	0.42	0.076	-0.04	0.87	241	0.150	-87	568
Carotid disease	0.89	0.375	0.69	1.15	1.39	0.005	1.10	1.75	0.50	0.000	0.39	0.64	1.14	0.058	1.00	1.31	1.05	0.568	0.90	1.22	0.90	0.474	0.69	1.19	1.02	0.749	0.90	1.16	0.04	0.813	-0.32	0.41	-93	0.479	-351	165
COPD	0.85	0.133	0.69	1.05	0.93	0.483	0.76	1.14	0.36	0.000	0.29	0.45	1.06	0.322	0.95	1.18	0.85	0.011	0.75	0.96	1.23	0.037	1.01	1.48	0.97	0.537	0.88	1.07	0.22	0.163	-0.09	0.53	72	0.609	-205	349
Pulmonary hypertension	0.75	0.006	0.61	0.92	0.88	0.234	0.72	1.08	0.13	0.000	0.10	0.16	1.07	0.266	0.95	1.19	0.80	0.000	0.70	0.90	0.76	0.010	0.61	0.94	0.98	0.699	0.89	1.08	-0.51	0.000	-0.79	-0.23	-338	0.016	-613	-64
Renal disease, GFR <15mg/dl	2.67	0.000	2.04	3.50	3.14	0.000	2.43	4.05	0.29	0.000	0.19	0.44	0.92	0.432	0.74	1.14	1.45	0.001	1.17	1.79	2.00	0.000	1.51	2.65	1.26	0.012	1.05	1.50	3.47	0.000	2.36	4.58	2,104	0.000	988	3,219
Renal disease, GFR <30mg/dl	1.59	0.000	1.24	2.04	2.03	0.000	1.58	2.61	0.13	0.000	0.09	0.18	3.84	0.000	3.35	4.39	0.86	0.103	0.71	1.03	1.37	0.022	1.05	1.80	1.14	0.074	0.99	1.33	2.67	0.000	1.92	3.43	942	0.009	233	1,650
Atrial fibrillation	1.43	0.000	1.26	1.62	1.62	0.000	1.43	1.83	1.21	0.004	1.06	1.38	1.59	0.000	1.48	1.70	1.49	0.000	1.39	1.59	2.18	0.000	1.90	2.50	1.14	0.000	1.08	1.21	1.64	0.000	1.44	1.84	681	0.000	545	817
Diabetes mellitus	0.92	0.219	0.80	1.05	0.86	0.020	0.75	0.98	1.11	0.120	0.97	1.28	1.53	0.000	1.42	1.63	1.18	0.000	1.09	1.27	1.12	0.094	0.98	1.28	1.14	0.000	1.08	1.21	0.63	0.000	0.44	0.83	182	0.007	49	315
Emergency	1.19	0.099	0.97	1.47	1.45	0.000	1.18	1.78	0.25	0.000	0.20	0.32	1.61	0.000	1.43	1.81	1.11	0.141	0.97	1.27	1.26	0.032	1.02	1.57	1.13	0.032	1.01	1.26	4.40	0.000	3.52	5.27	1,022	0.000	587	1,457
Number of cases per center	1.00	0.000	1.00	1.00	1.00	0.012	1.00	1.00	1.00	0.383	1.00	1.00	1.00	0.611	1.00	1.00	1.00	0.097	1.00	1.00	1.00	0.000	1.00	1.00	1.00	0.210	1.00	1.00	-0.01	0.004	-0.01	0.00	-3	0.076	-6	0

CABG: coronary artery bypass graft; CAD: coronary artery disease; COPD: chronic obstructive pulmonary disease; EuroSCORE: European System for Cardiac Operative Risk Evaluation; GFR: glomerular filtration rate; MI: myocardial infarction;

NYHA: New York Heart Association; SAVR: surgical aortic valve replacement; SD: standard deviation; TAVR: transcatheter aortic valve replacement.

**Supplementary Appendix 2:** Risk-adjusted subgroup analysis for the endpoint in-hospital mortality of patients treated with balloon-expandable or self-expanding transfemoral TAVR in Germany in 2019 and 2020

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