

SUPPLEMENTAL MATERIAL

Supplemental Table 1		Device models used in the study	
		All patients (n=1439)	
Balloon expandable valve, %		738 (51)	
	Edwards Sapien XT, %	15 (1.0)	
	Edwards Sapien 3, %	564 (39)	
	Edwards Sapien 3 Ultra, %	148 (10)	
Self expanding valve, %		597 (42)	
	Medtronic Core Valve, %	44 (3.1)	
	Medtronic Evolut PRO, %	176 (12)	
	Medtronic Evolut R, %	185 (13)	
	Symetis Acurate NEO, %	167 (12)	
	Edwards Centera, %	11 (0.8)	
	SJM Portico, %	24 (1.7)	
	NVT, %	1 (0.1)	
Mechanically expandable valve, %		104 (7)	
	Boston Scientific Lotus, %	95 (6.6)	
	Boston Scientific Lotus Edge, %	9 (0.6)	

Supplemental Table 2	Detailed indications for PPM implantation for HAVB/CHB	
	All patients (n=234)	
Complete heart block, %	160 (68)	
Alternating Bundle Branch Block, %	4 (2)	
2:1 AV Block, %	10 (4)	
AV-block type II Mobitz, %	7 (3)	
Symptomatic AV block type II Wenckebach, %	12 (5)	
Atrial fibrillation with symptomatic bradycardia, %	6 (3)	
LBBB w/ increasing QRS/PR interval, %	35 (15)	

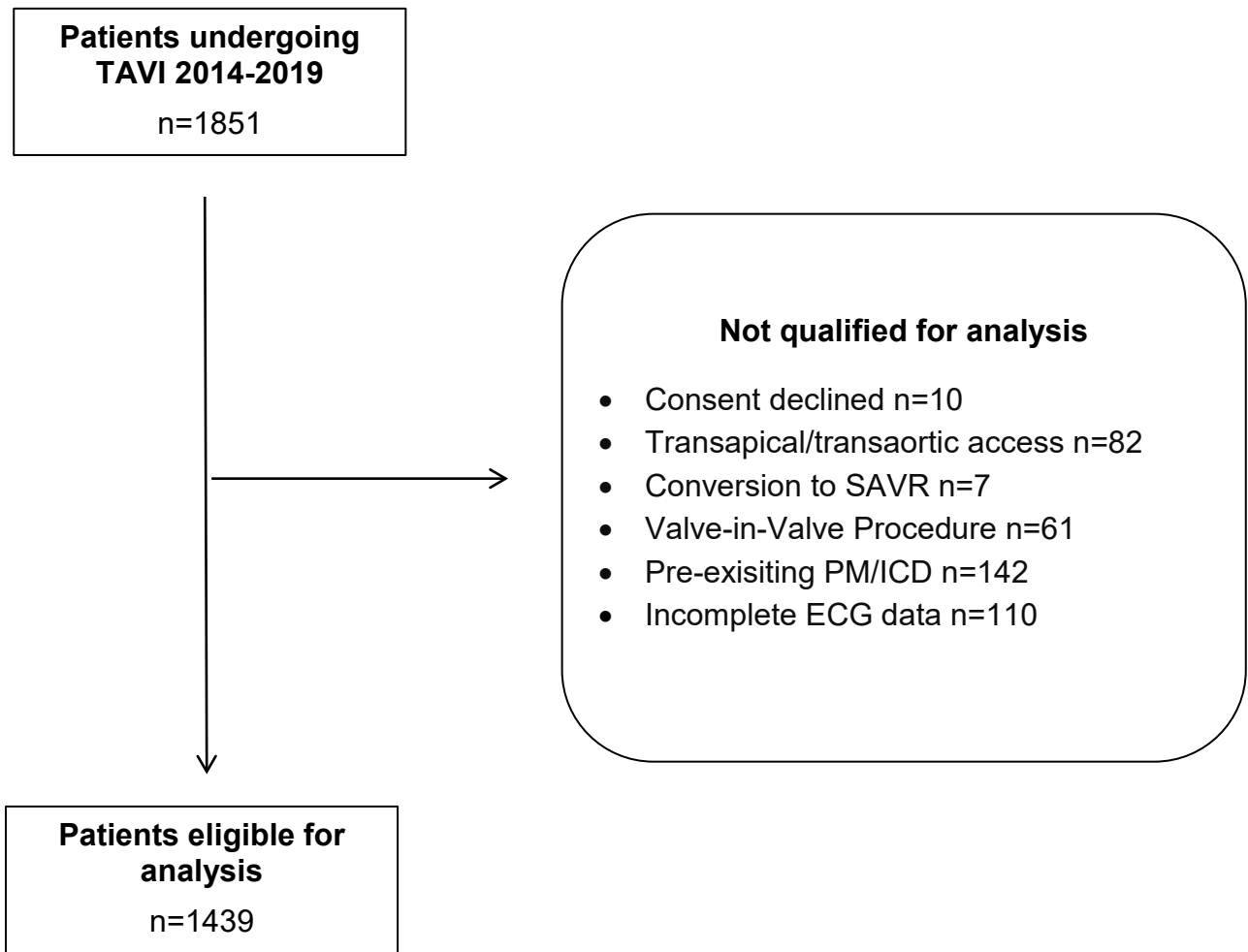
Data are presented as n (%)

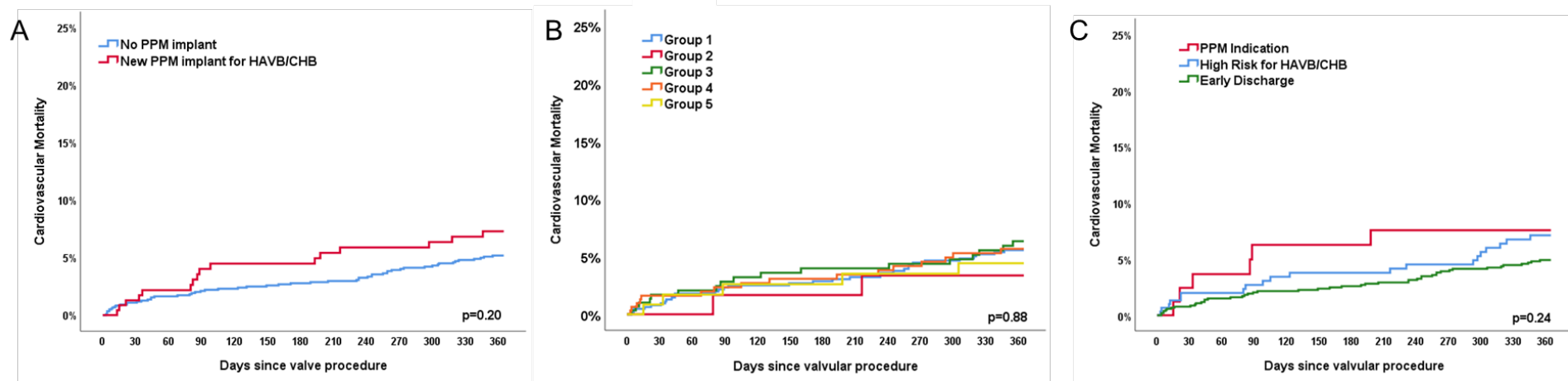
HAVB = high degree AV block; CHB = complete heart block;

Supplemental Table 3 A	PPM implantation rate after TAVI according to algorithm group (sensitivity analysis 2 nd and 3 rd degree AV block only)					
	All patients (n=1439)	Group 1 (n=642)	Group 2 (n=68)	Group 3 (n=298)	Group 4 (n=312)	Group 5 (n=119)
Overall	13.8%	3.4%	35.3%	18.8%	11.5%	51.3%
Balloon expandable valve	10.6%	2.8%	35.7%	11.5%	9.8%	41.8%
Self expandable valve	14.9%	4.3%	34.8%	23.0%	7.9%	59.3%
Mechanically expandable valve	30.8%	4.2%	33.3%	41.4%	31.6%	60.0%

Supplemental Table 3 B	PPM implantation rate after TAVI according to algorithm management recommendation (sensitivity analysis 2 nd and 3 rd degree AV block only)			
	All patients (n=1439)	Early Discharge (n=1054)	High Risk for HAVB/CHB (n=303)	PPM implantation (n=82)
Overall	13.8%	2.3%	30.7%	100%
Balloon expandable valve	10.6%	1.9%	26.9%	100%
Self expandable valve	14.9%	2.1%	32.3%	100%
Mechanically expandable valve	30.8%	8.3%	37.8%	100%

Suppl. Table 4			Characteristics of patients assigned to early discharge that subsequently developed an AVB requiring PPM implantation										
	Age	Gender	Pre-interventional ECG				Post-interventional ECG				Algorithm Group	PPM Indication	Days to AVB
			Block	Rhythm	PR	QRS	Block	Rhythm	PR	QRS			
#1	93	female	AVB I	SR	224	92	AVB I	SR	224	90	1	AVB III	3
#2	84	male	0	AF		110	IVCD	AF		138	3	AVB III	3
#3	87	male	LBBB	SR	154	166	LBBB	SR	194	164	1	Alternating BBB	4
#4	81	female	RBBB	AF		140	RBBB	AF		144	2	AVB III	4
#5	82	male	0	SR	142	110	0	SR	122	114	1	AVB III	7
#6	82	male	0	SR	132	94	LBBB	SR	176	132	4	LBBB w/ increasing QRS/PR	5
#7	69	female	LBBB	SR	160	136	LBBB	SR	164	142	1	2:1 AV block	3
#8	81	male	0	SR	161	92	LBBB	SR	250	140	4	AVB III	3
#9	81	male	0	SR	128	108	LBBB	SR	120	136	4	AVB III	3
#10	83	female	LBBB	AF		144	LBBB	AF		140	1	AVB III	5
#11	89	male	AVB I	SR	232	108	AVB I	SR	244	110	1	AVB III	2
#12	71	male	0	SR	155	86	LBBB	SR	166	136	4	LBBB w/ increasing QRS/PR	4
#13	90	female	0	SR	120	80	LBBB	SR	132	121	4	AVB III	2
#14	88	male	LBBB	AF		126	LBBB	AF		122	1	AVB III	2
#15	84	female	AVB I	SR	220	100	AVB I	SR	242	110	3	AVB III	14
#16	90	female	0	AF		110	0	AF		96	1	AF with sympt. bradycardia	12
#17	79	male	RBBB	AF		146	RBBB	AF		134	2	AVB III	4
#18	79	male	0	SR	180	92	AVB I	SR	220	90	3	Alternating BBB	4
#19	82	male	AVB I	SR	201	106	AVB I	SR	230	96	3	LBBB w/ increasing QRS/PR	14
#20	70	male	IVCD	SR	172	124	IVCD	AF		122	1	AVB III	7
#21	65	male	0	SR	174	80	LBBB	AF		126	4	Alternating BBB	3
#22	73	female	0	SR	198	96	0	SR	193	94	1	LBBB w/ increasing QRS/PR	3
#23	83	female	RBBB	SR	144	138	RBBB	SR	197	146	2	AVB III	5
#24	85	female	0	SR	144	100	0	SR	160	92	1	AVB III	2
#25	86	male	0	SR	182	108	IVCD & AVB I	SR	204	122	3	AVB III	5
#26	94	female	0	SR	152	64	LBBB	SR	172	134	4	AVB III	2
#27	82	female	LBBB	SR	160	164	LBBB	SR	150	168	1	2:1 AV block	3
#28	77	male	IVCD & AVB I	SR	226	154	IVCD & AVB I	SR	204	148	1	AVB III	7





Supplemental Figure 2 Cardiovascular Mortality after TAVI

Cardiovascular Mortality after TAVI in Kaplan Meier analysis is shown according to the need for a PPM implantation for HAVB/CHB within the first 30 days (Panel A), the recommendation of the Algorithm (Panel B) and according to the initial group assignment (Panel C). Differences in cardiovascular mortality were assessed using log-rank test.