



TAVI

TAVI:
Analysis of patients
enrolled in 2009–2017 Update :
J. Št'ásek



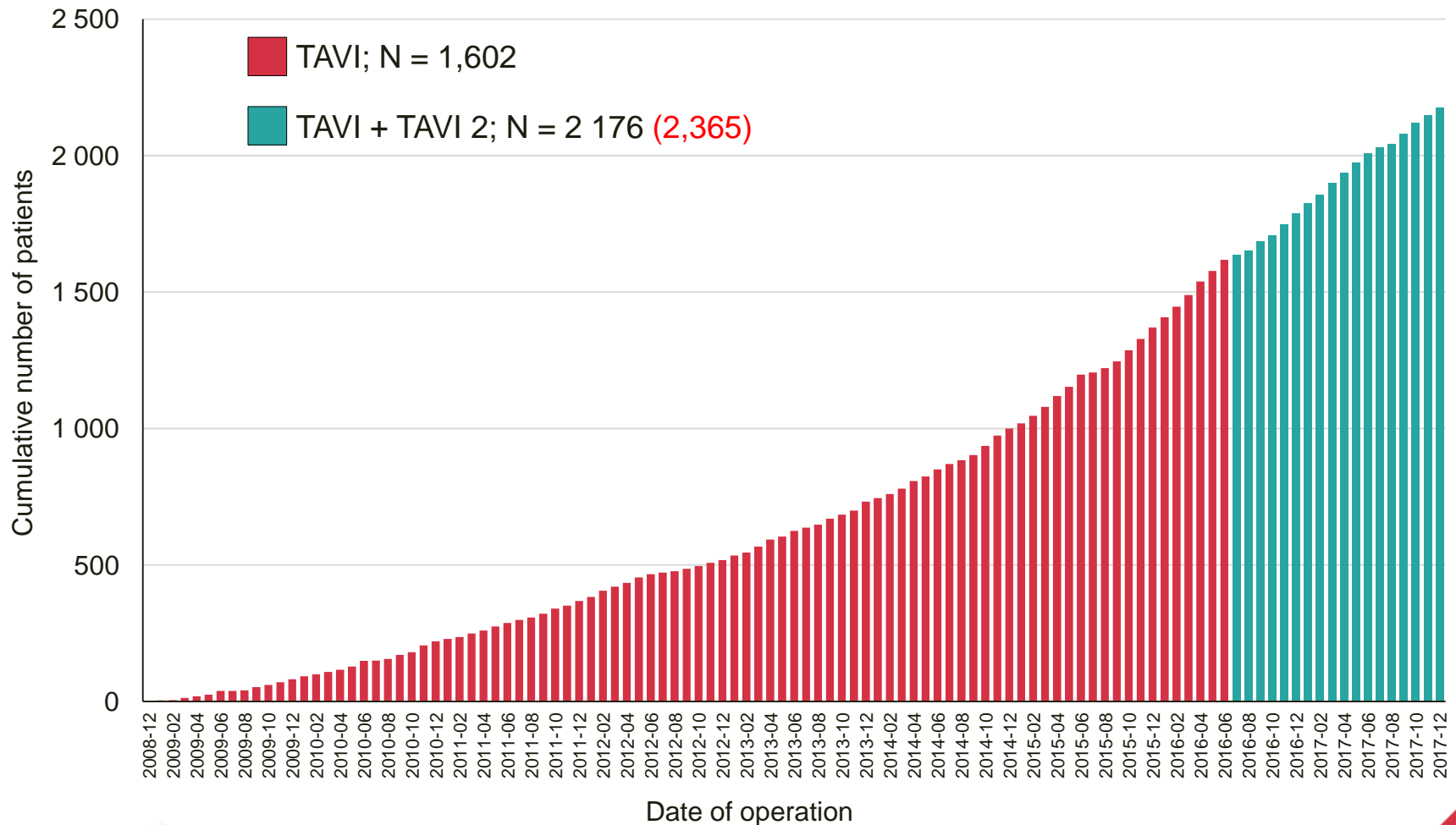


TAVI – enrollment of patients



Enrollment in time

TAVI registry contains 1602 patients enrolled between January 2009 and June 2016. TAVI 2 registry contains 574 patients included for aortic procedure between June 2016 and December 2017 (export date: April 26, 2018).



Number of enrolled patients by centers

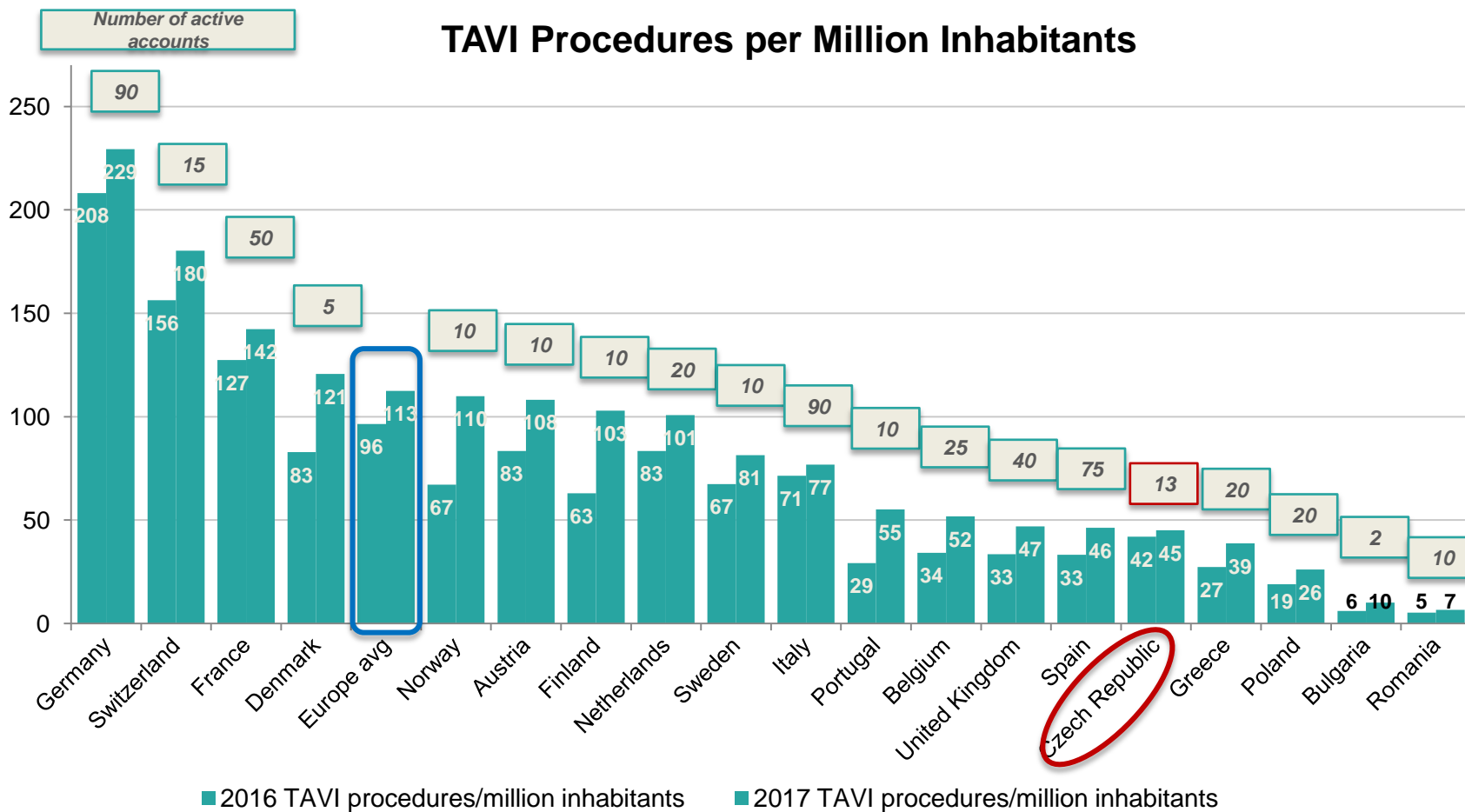
Center	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
CKTCH Brno	11	19	18	14	19	28	47	53	48	257
České Budějovice	4	4	10	2	17	10	14	43	45	149
FN Olomouc	0	6	4	4	3	4	33	50	55	159
FN Plzeň	0	0	0	2	10	17	20	18	25	92
FNHK	12	26	17	19	17	26	38	37	52	244
FNKV Praha	13	24	18	19	24	33	41	41	50	263
IKEM Praha	24	19	18	24	30	35	44	59	76	329
Nemocnice Na Homolce	0	2	2	0	8	19	26	26	35	118
Třinec	13	35	50	53	73	80	89	100	90	583
Ústí nad Labem	4	4	7	10	8	6	9	13	22	83
VFN Praha	0	0	4	3	5	10	9	14	43	88
Total	81	139	148	150	214	268	370	454	541	2365



TAVI and TAVI 2 registries contain 2,176 patients enrolled in 2009–2017.

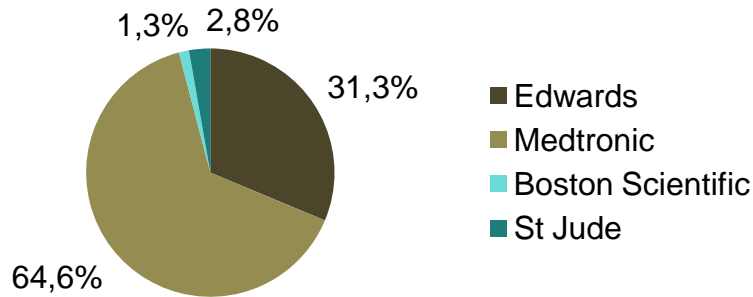


2017 vs 2016 TAVI penetration in Europe

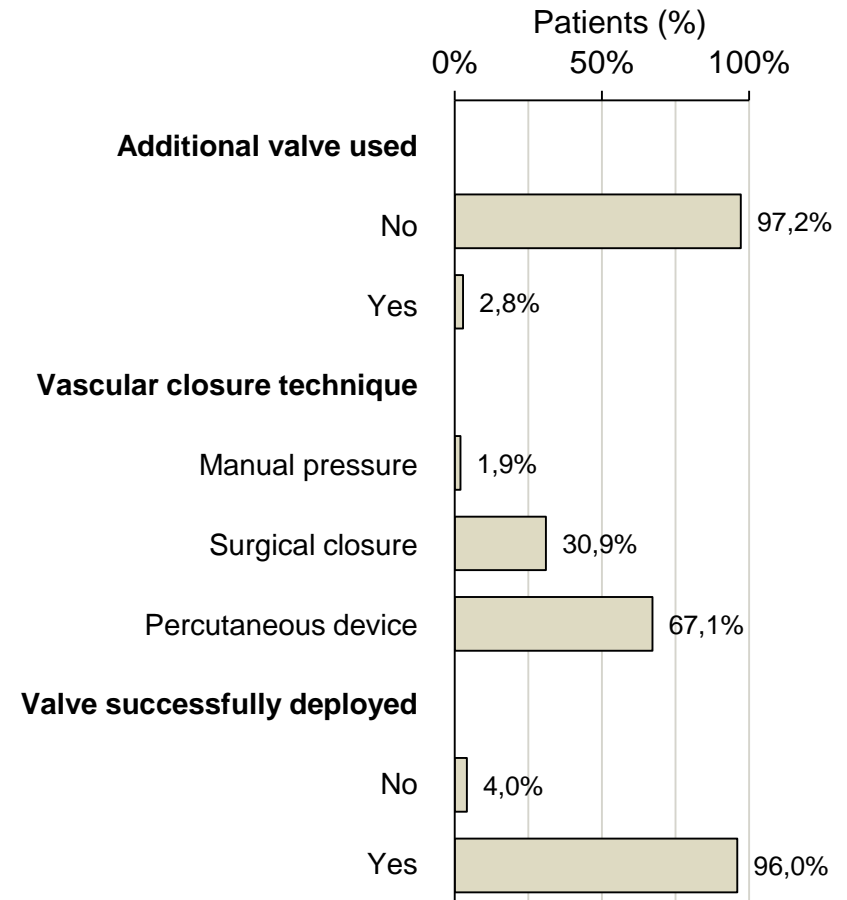


Aortic valve characteristics

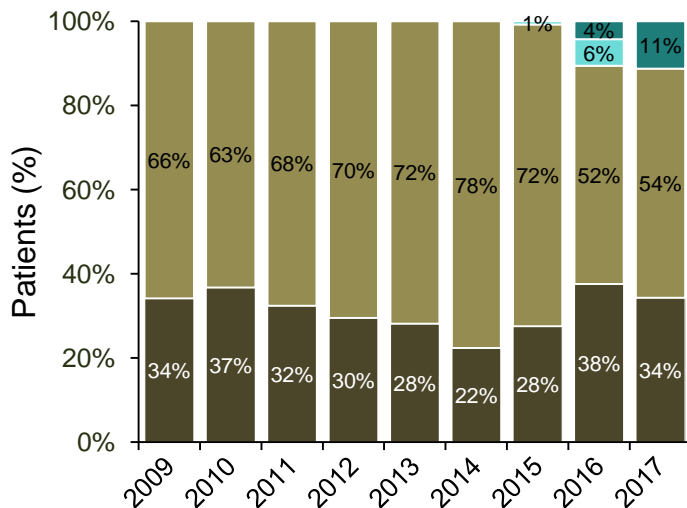
Valve manufacturer:



Valve deployment:



Valve manufacturer in 2009–2017:





TAVI

TAVI:
Analysis of patients enrolled
from January 2009 to June 2017



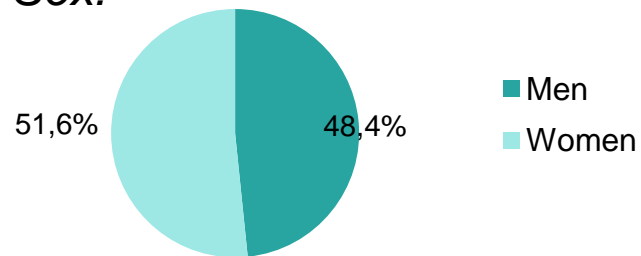


TAVI – description of patients at entry



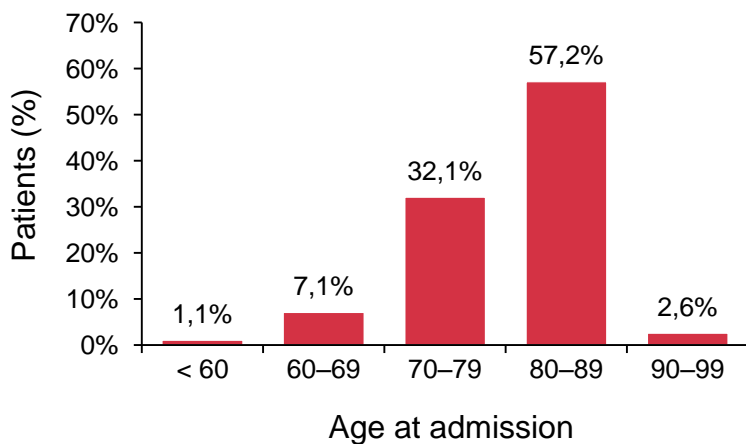
Basic characteristics of patients

Sex:

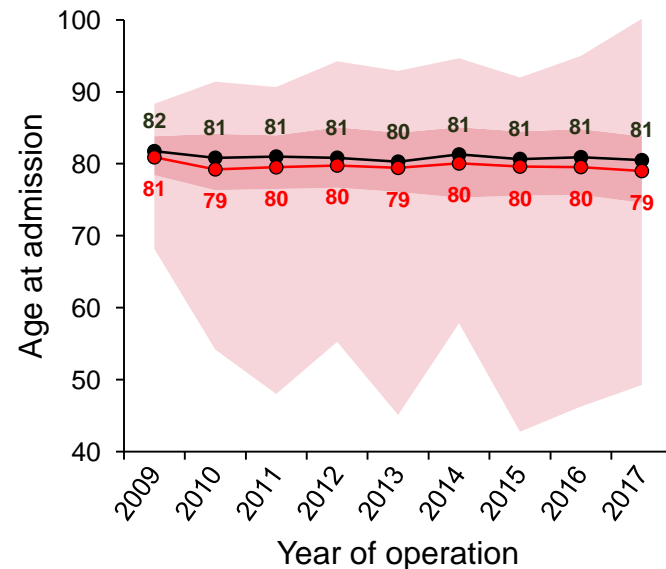


Age at admission:

	Mean (\pm SD)	Median (5th; 95th percentile)
Men	79 (\pm 8)	80 (65; 89)
Women	81 (\pm 6)	82 (70; 89)
Total	80 (\pm 7)	81 (67; 89)

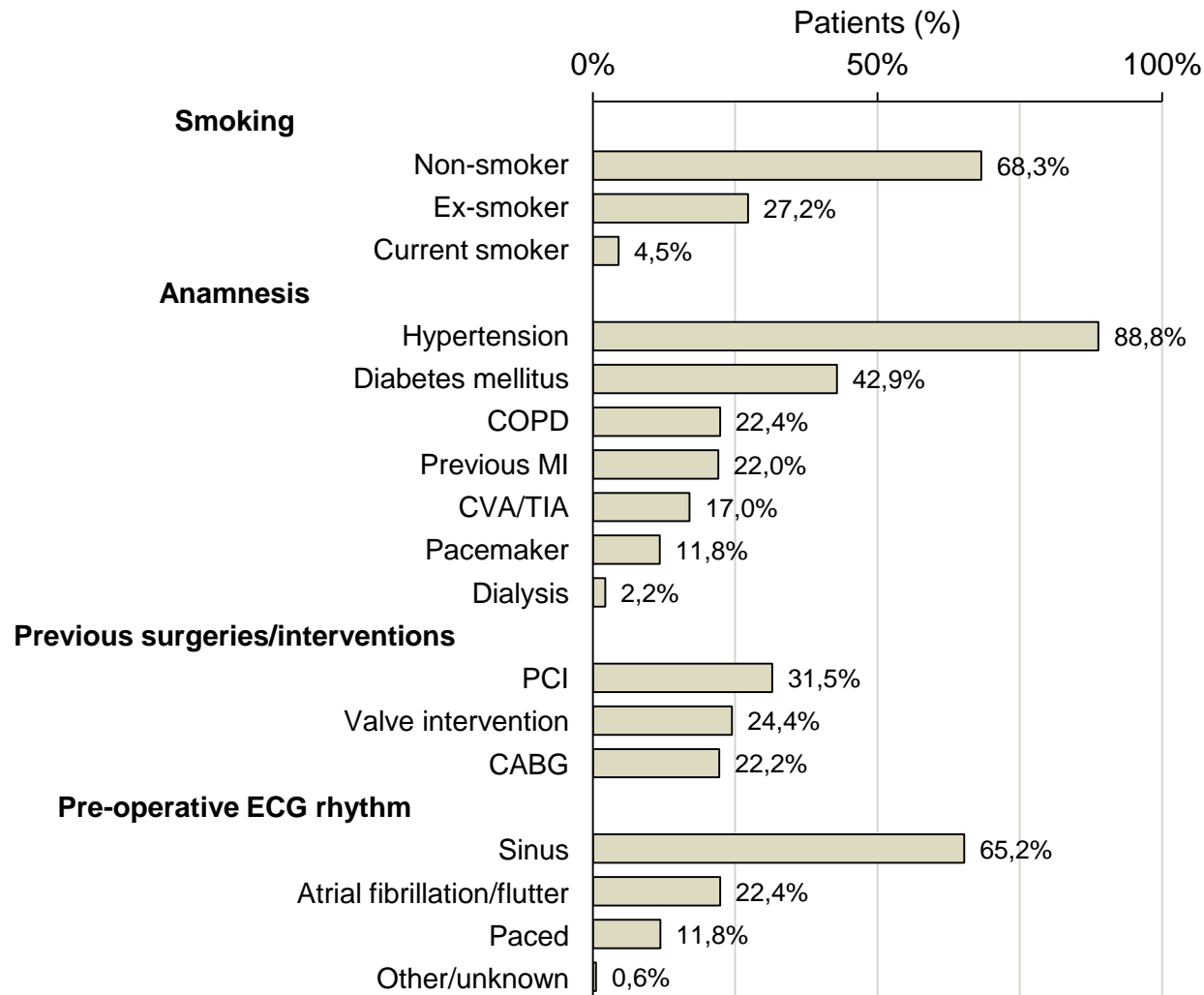


Age at admission in 2009–2017:

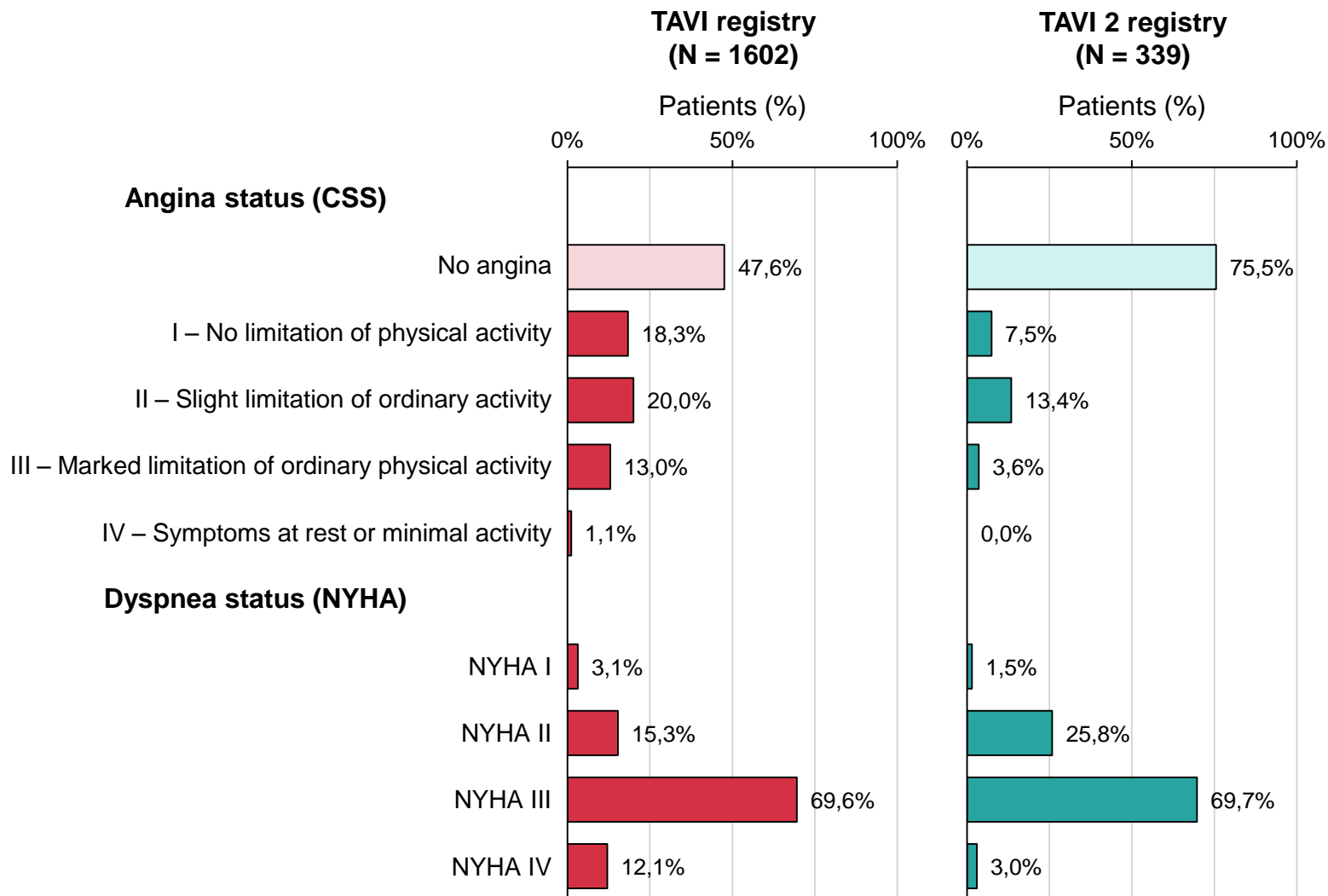


- Median
- Mean
- 25th–75th percentile
- Minimum–maximum

Medical history and risk factors



Angina status (CCS) & Dyspnea status (NYHA)

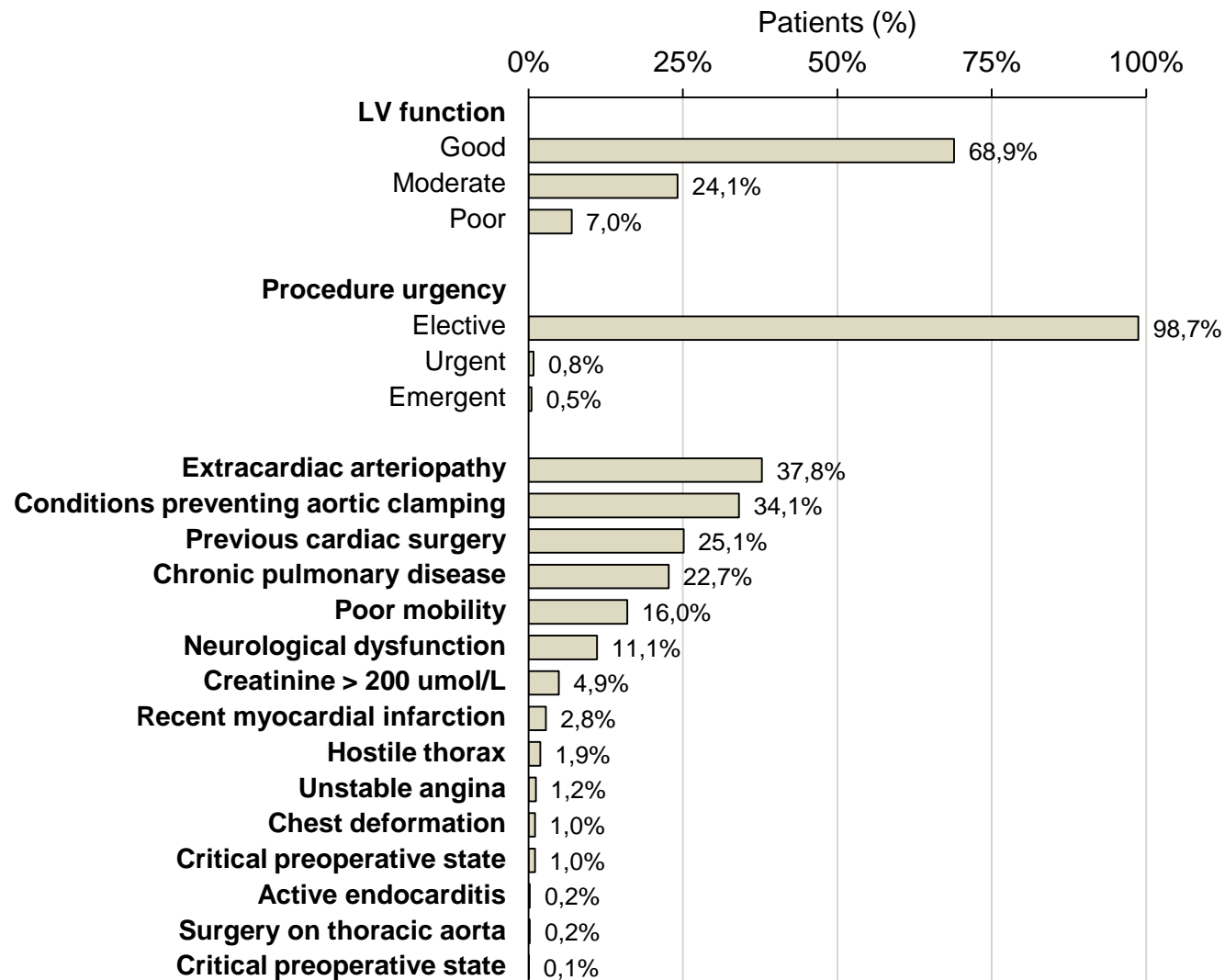




EuroSCORE evaluation

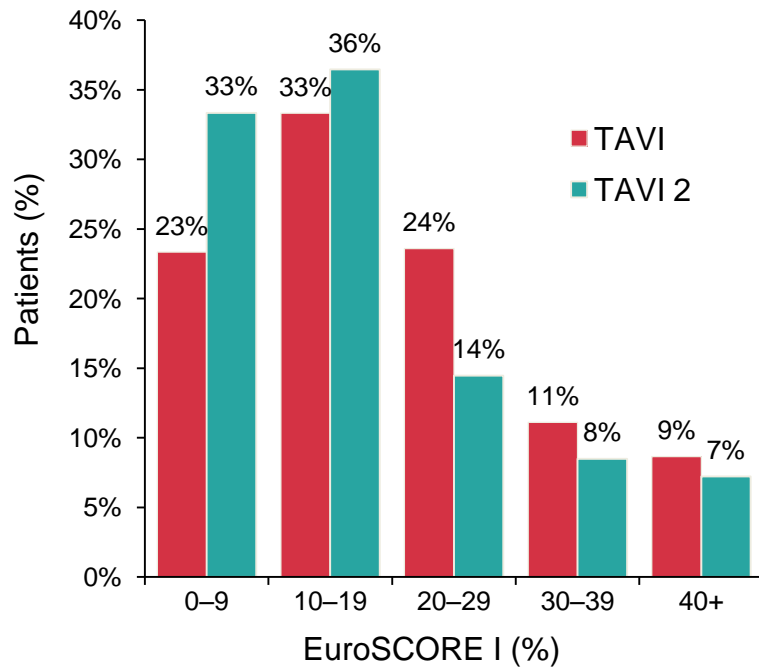


EuroSCORE questions regarding high risk surgery

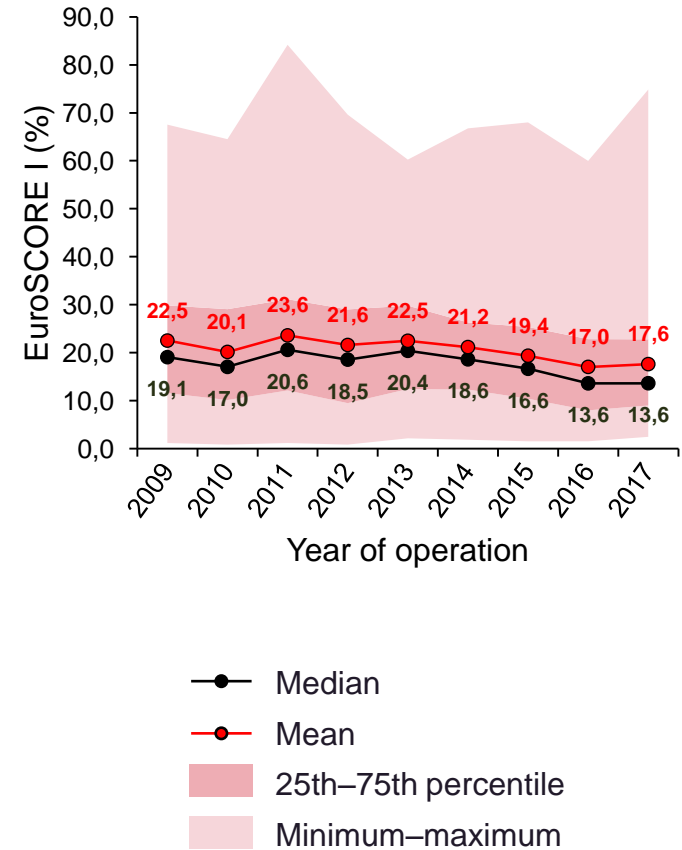


EuroSCORE I (%):

	N _{valid}	Mean (± SD)	Median (5th; 95th percentile)
TAVI	1594	21 (± 13)	18 (5; 48)
TAVI 2	318	17 (± 13)	13 (4; 45)
Total	1912	20 (± 13)	17 (5; 48)



EuroSCORE I in 2009–2017:

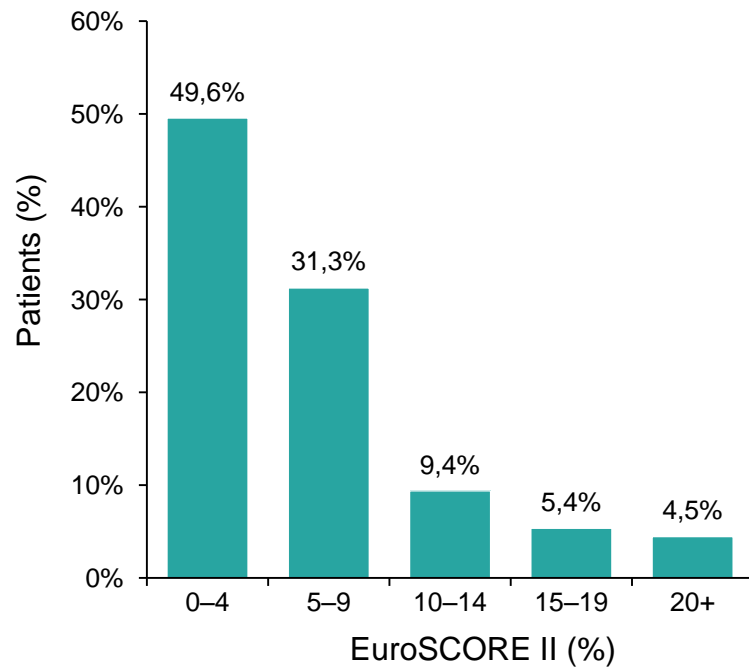


EuroSCORE II

*Only for patients
in TAVI 2 registry

EuroSCORE II (%):

N _{valid}	Mean (\pm SD)	Median (5th; 95th percentile)
224	7 (\pm 7)	5 (1; 19)



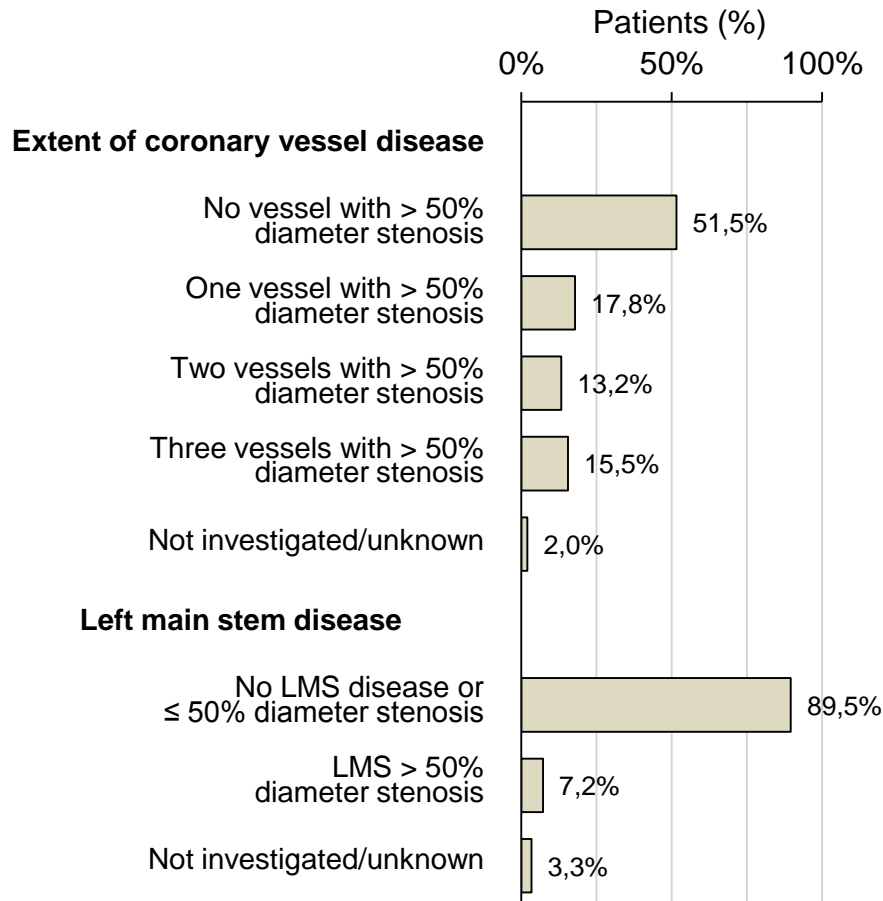


Preoperative examination



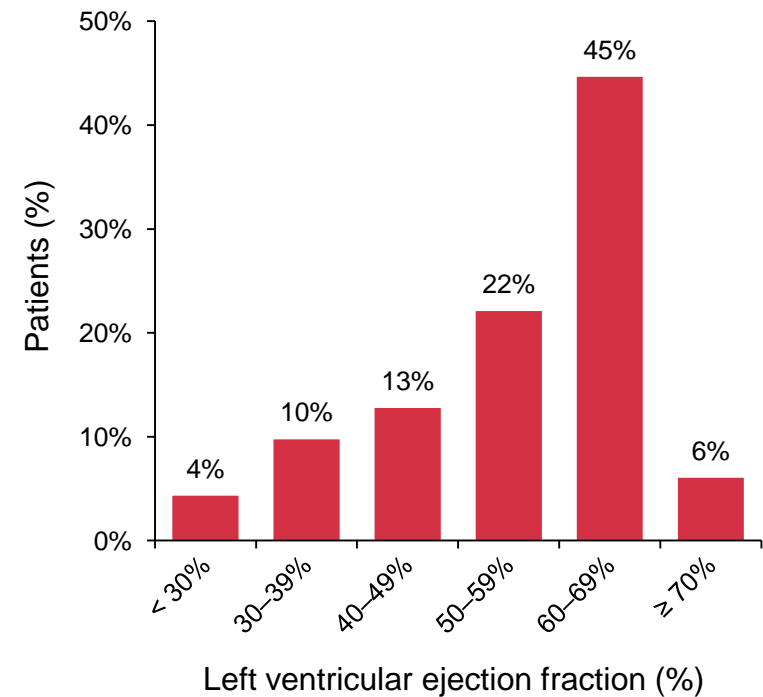
Coronary vessel disease & ejection fraction

Coronary vessel disease:



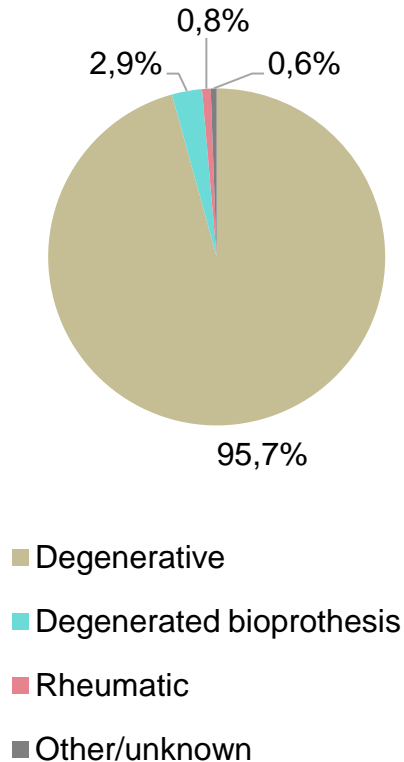
Ejection fraction (%):

	N _{valid}	Mean (± SD)	Median (5th; 95th percentile)
TAVI	1597	54 (± 12)	60 (30; 70)
TAVI 2	320	53 (± 14)	55 (25; 72)
Total	1917	54 (± 12)	60 (30; 70)



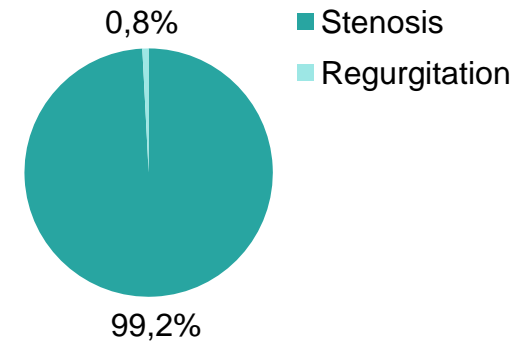
Aortic valve etiology & pathology

AV etiology:

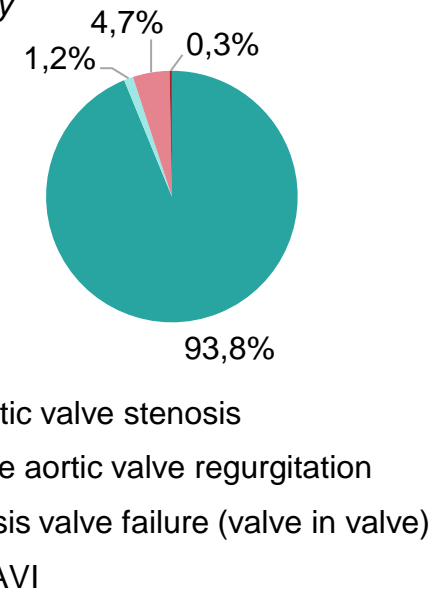


AV pathology:

TAVI registry
(N = 1602):



TAVI 2 registry
(N = 339):



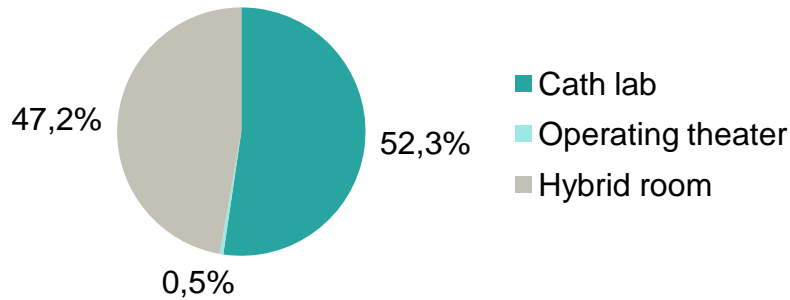


TAVI procedure description & outcome

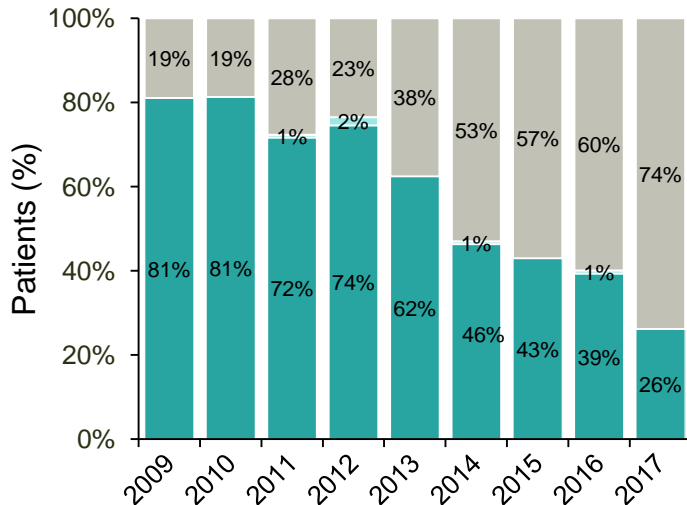


Site of implantation & time of procedure

Site of implantation:



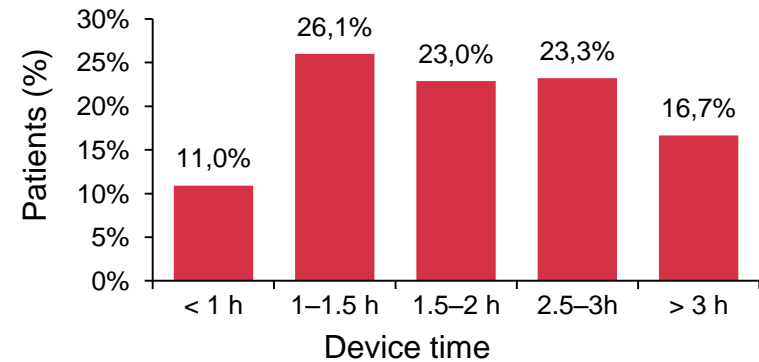
Site of implantation in 2009–2017:



Device time [min]:

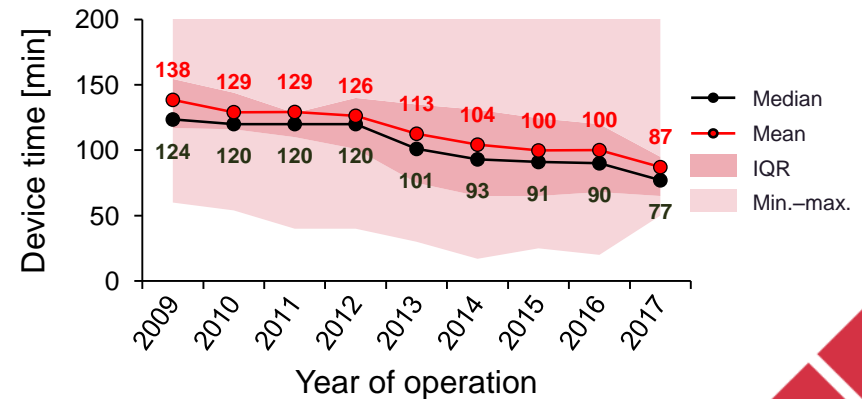
(punction -> catheter removal)

N_{valid}	Mean (\pm SD)	Median (5th; 95th percentile)
1903	109 (\pm 52)	102 (45; 194)



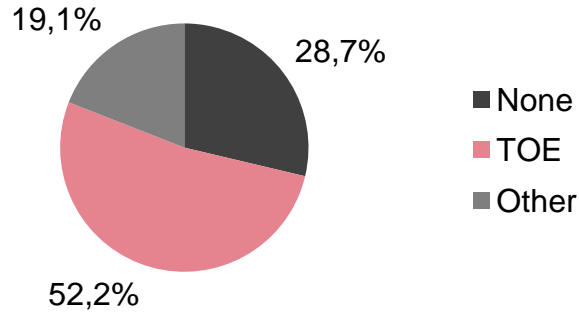
Device time in 2009–2017 [min]:

Values higher than 200 min are not displayed in the plot.

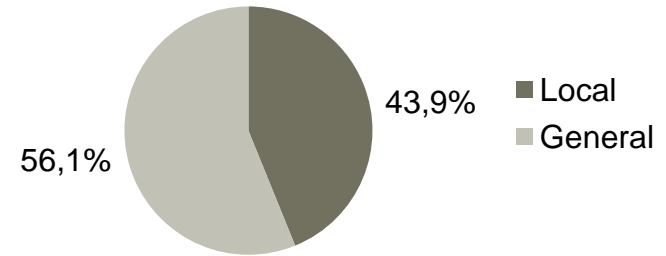


Periprocedural imaging & anaesthesia

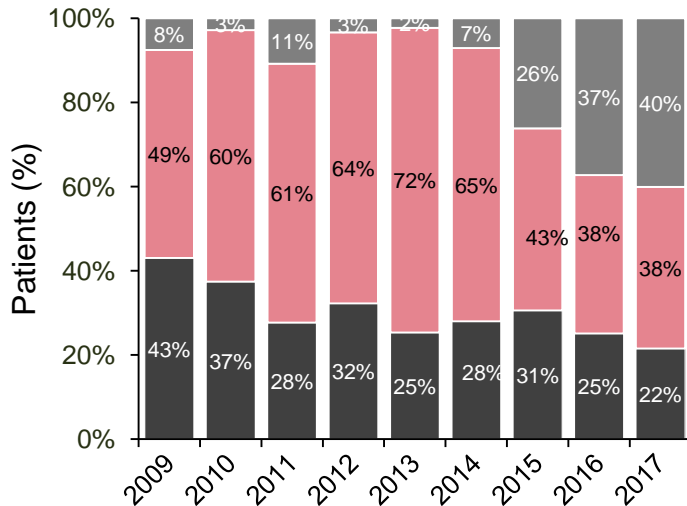
Periprocedural imaging:



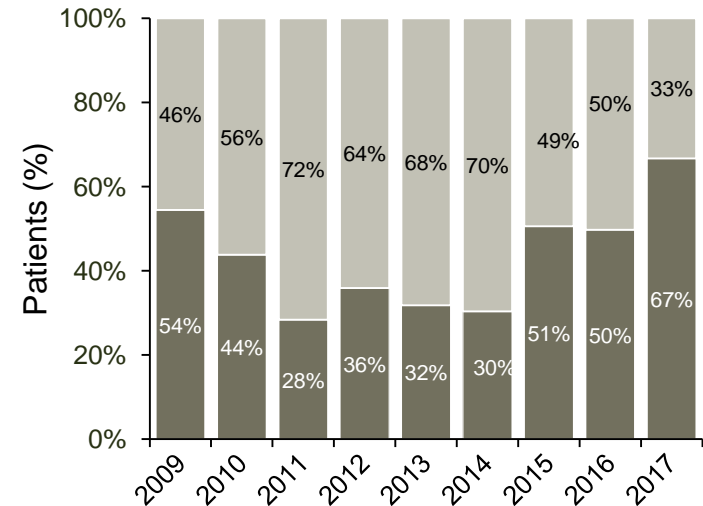
Anaesthesia:



Periprocedural imaging in 2009–2017:

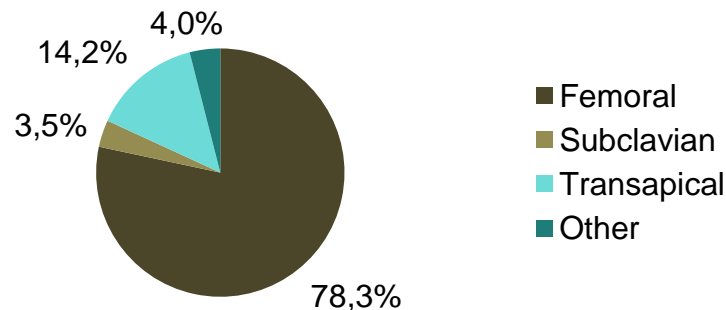


Anaesthesia in 2009–2017:

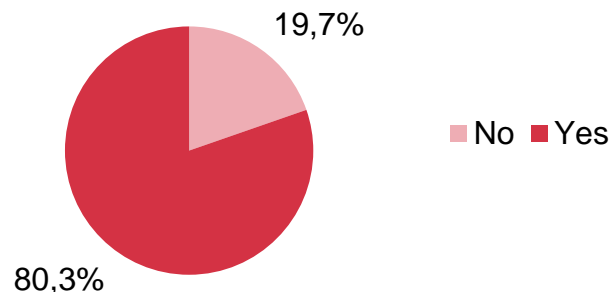


Access site & Aortic valve balloon predilatation

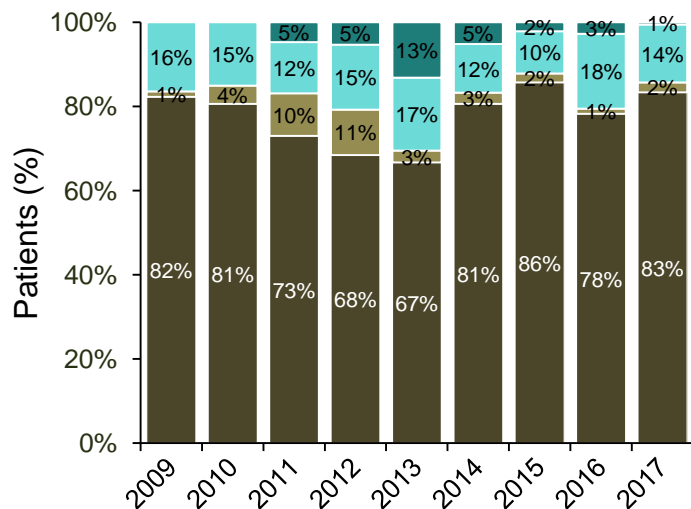
Access site:



Aortic valve balloon predilatation:



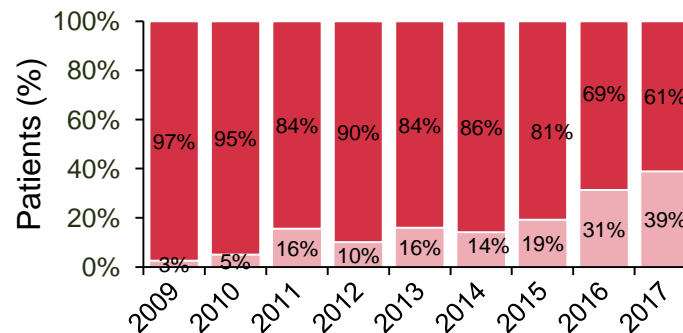
Access site in 2009–2017:



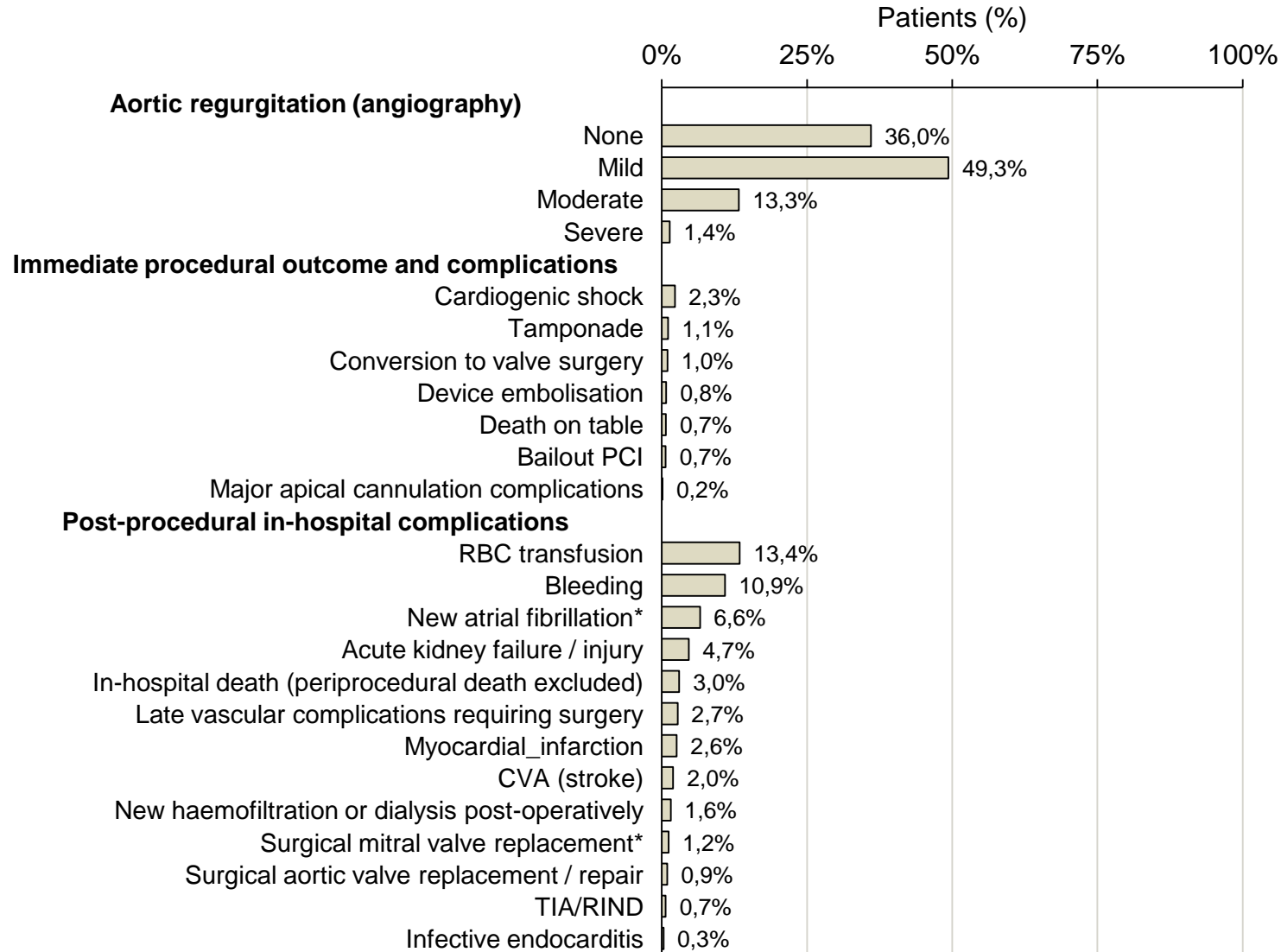
If yes, diameter of the largest balloon:

N_{valid}	Mean (\pm SD)	Median (5th; 95th percentile)
1555	22 (\pm 2)	22 (18; 25)

AV balloon predilatation in 2009–2017:



Procedural outcome & complications



*Only for patients in TAVI 2 registry



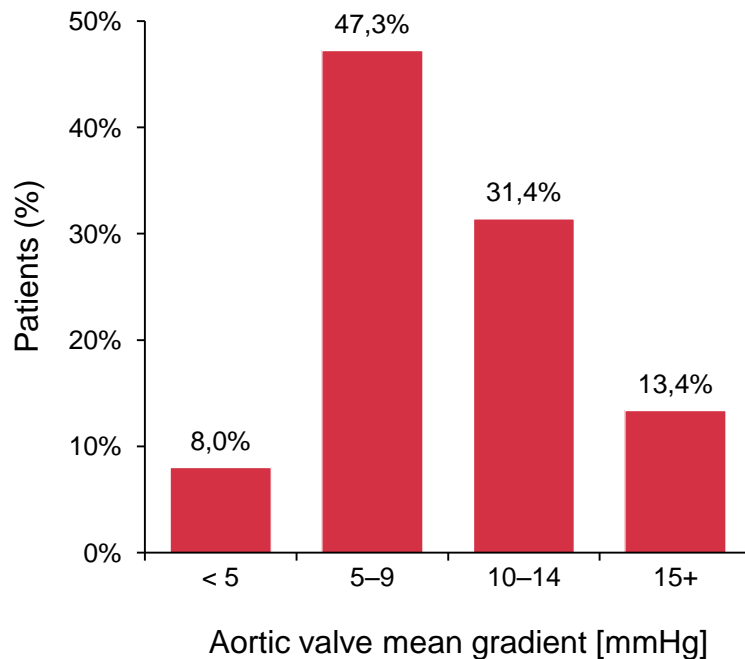
Discharge



AV mean gradient & ejection fraction at discharge

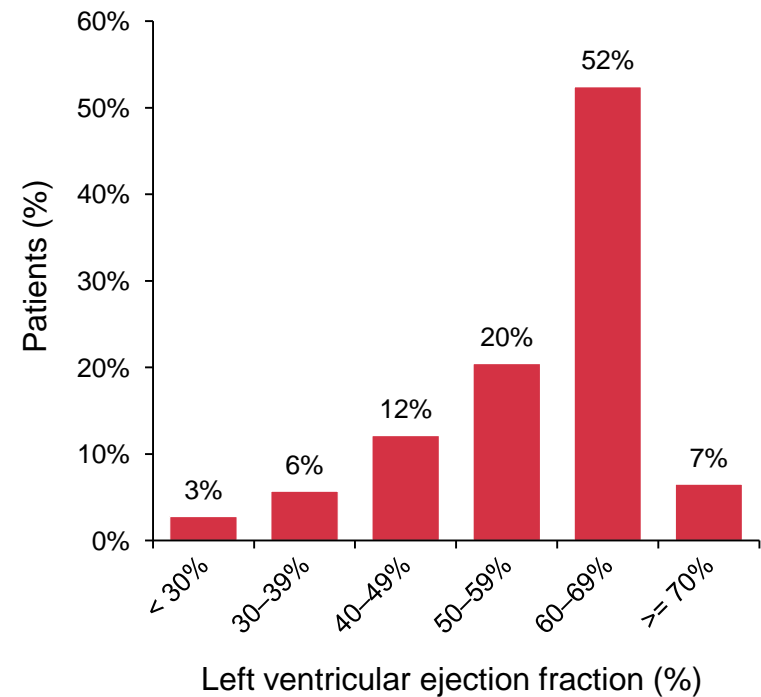
AV mean gradient [mmHg]:

	N _{valid}	Mean (± SD)	Median (5th; 95th percentile)
TAVI	1541	9.8 (± 5.4)	9 (4; 19)
TAVI 2	300	10.0 (± 4.8)	9 (4; 20)
Total	1841	9.8 (± 5.3)	9 (4; 19)



Ejection fraction (%):

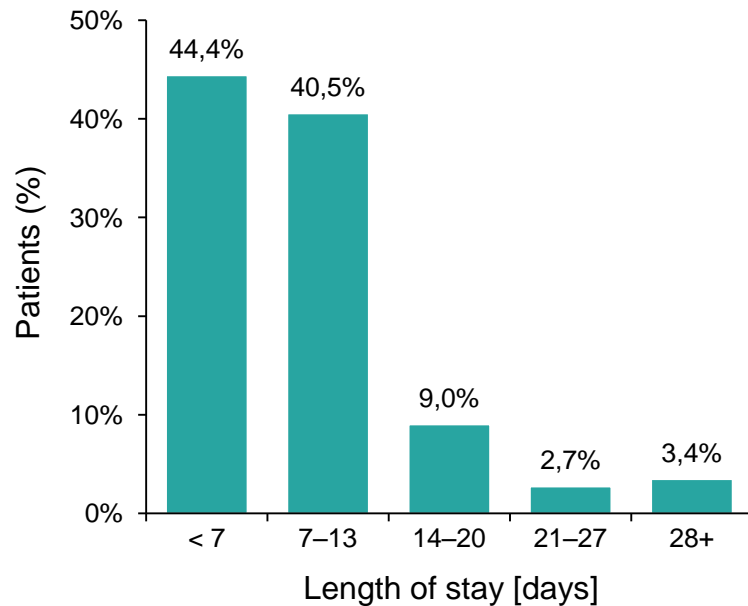
	N _{valid}	Mean (± SD)	Median (5th; 95th percentile)
TAVI	1546	56 (± 11)	60 (32; 70)
TAVI 2	298	55 (± 12)	60 (30; 70)
Total	1844	56 (± 11)	60 (30; 70)



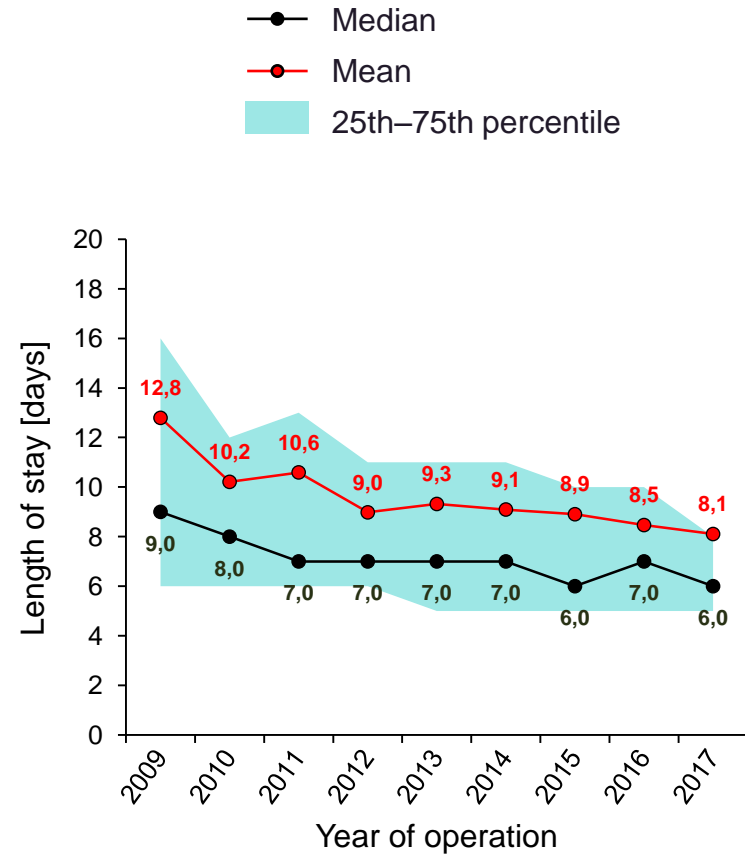
Length of hospitalization stay in years

Length of hospitalization [days]:
(operation -> discharge/death)

	N _{valid}	Mean (± SD)	Median (5th; 95th percentile)
TAVI	1569	9.3 (± 8.3)	7 (3; 23)
TAVI 2	324	8.6 (± 6.0)	7 (3; 20)
Total	1893	9.2 (± 7.9)	7 (3; 22)

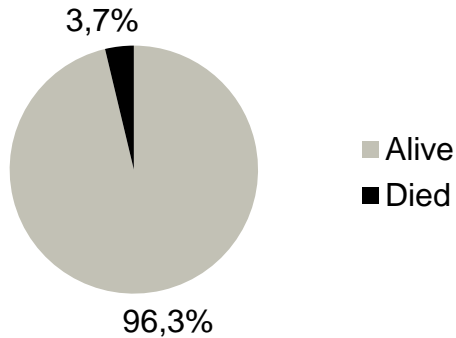


– between 2009 and 2017 [days]:

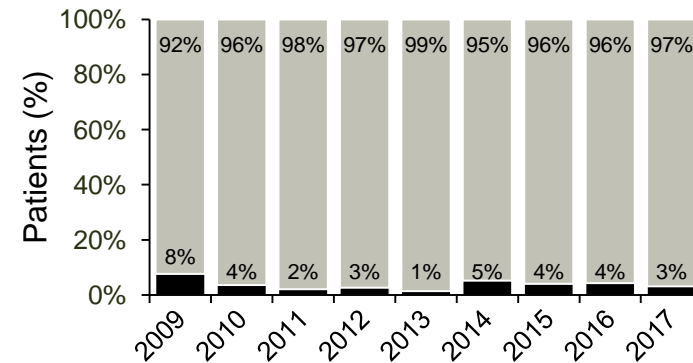


Hospital mortality & causes of death

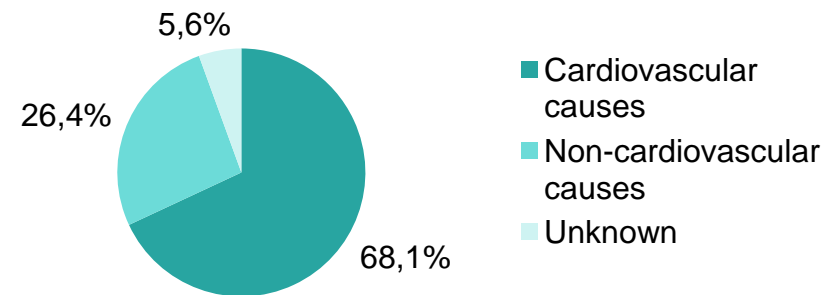
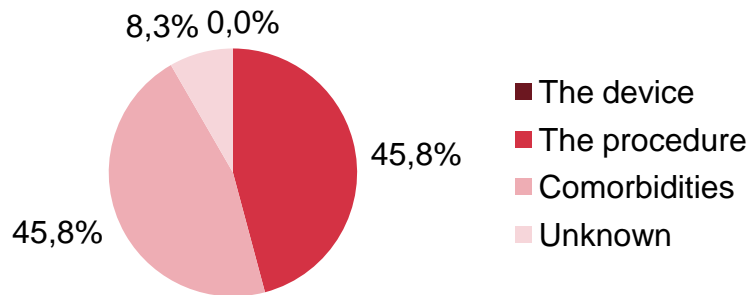
In-hospital mortality:



In-hospital mortality in 2009–2017:



Causes of death; N = 72:

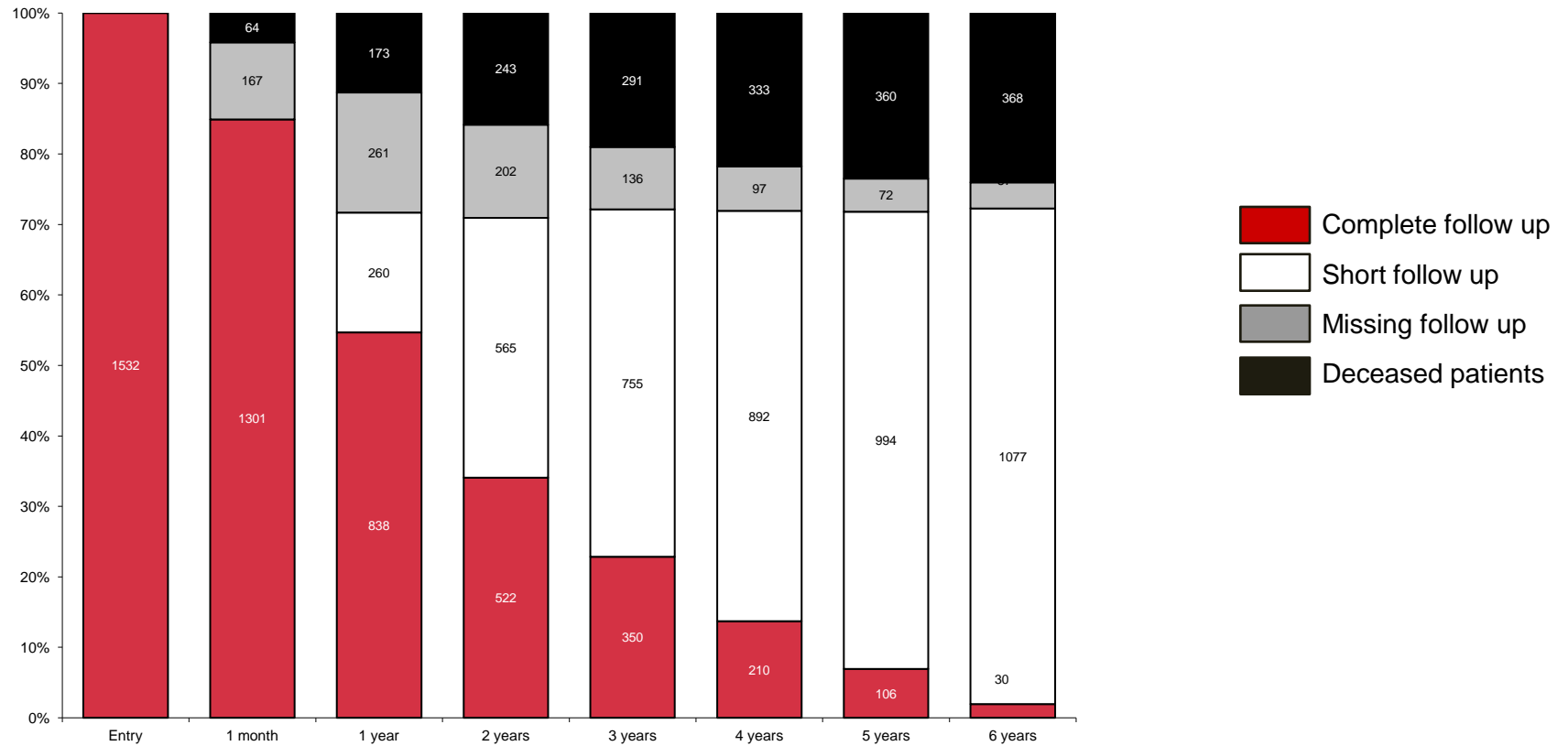




Follow-up



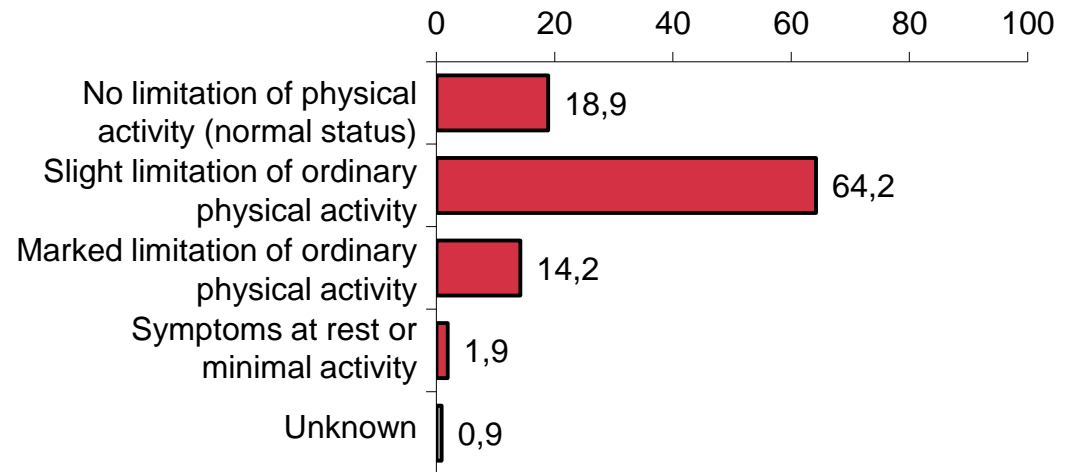
Follow-up



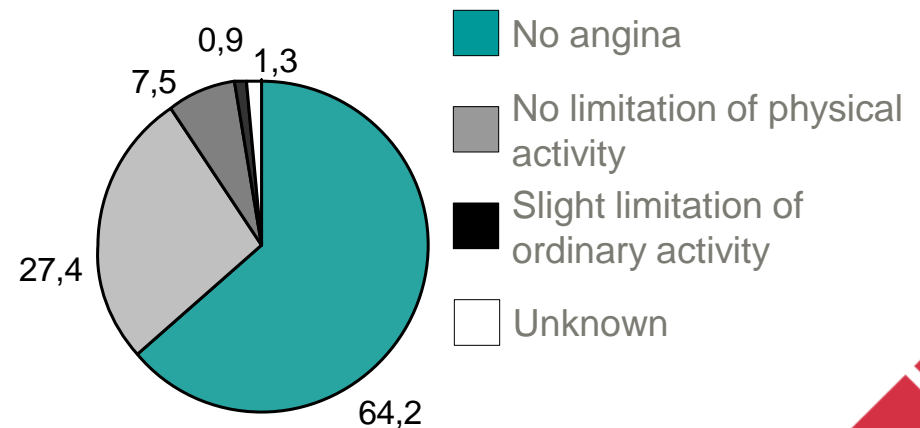
5-year follow-up

Complication	N (%)
Hospitalization for valve-related or cardiac decompensation	4 (3.8%)
Permanent PM - new indication	2 (1.9%)
Stroke	1 (0.9%)
TIA/RIND	1 (0.9%)
Prosthetic endocarditis	1 (0.9%)
CRT- new indication	1 (0.9%)
Major vascular complications	0 (0.0%)
Ventricular septal perforation	0 (0.0%)
Mitral valve apparatus damage dysfunction	0 (0.0%)
Prosthetic thrombosis	0 (0.0%)
ICD - new indication	0 (0.0%)

NYHA dyspnoea status (%)

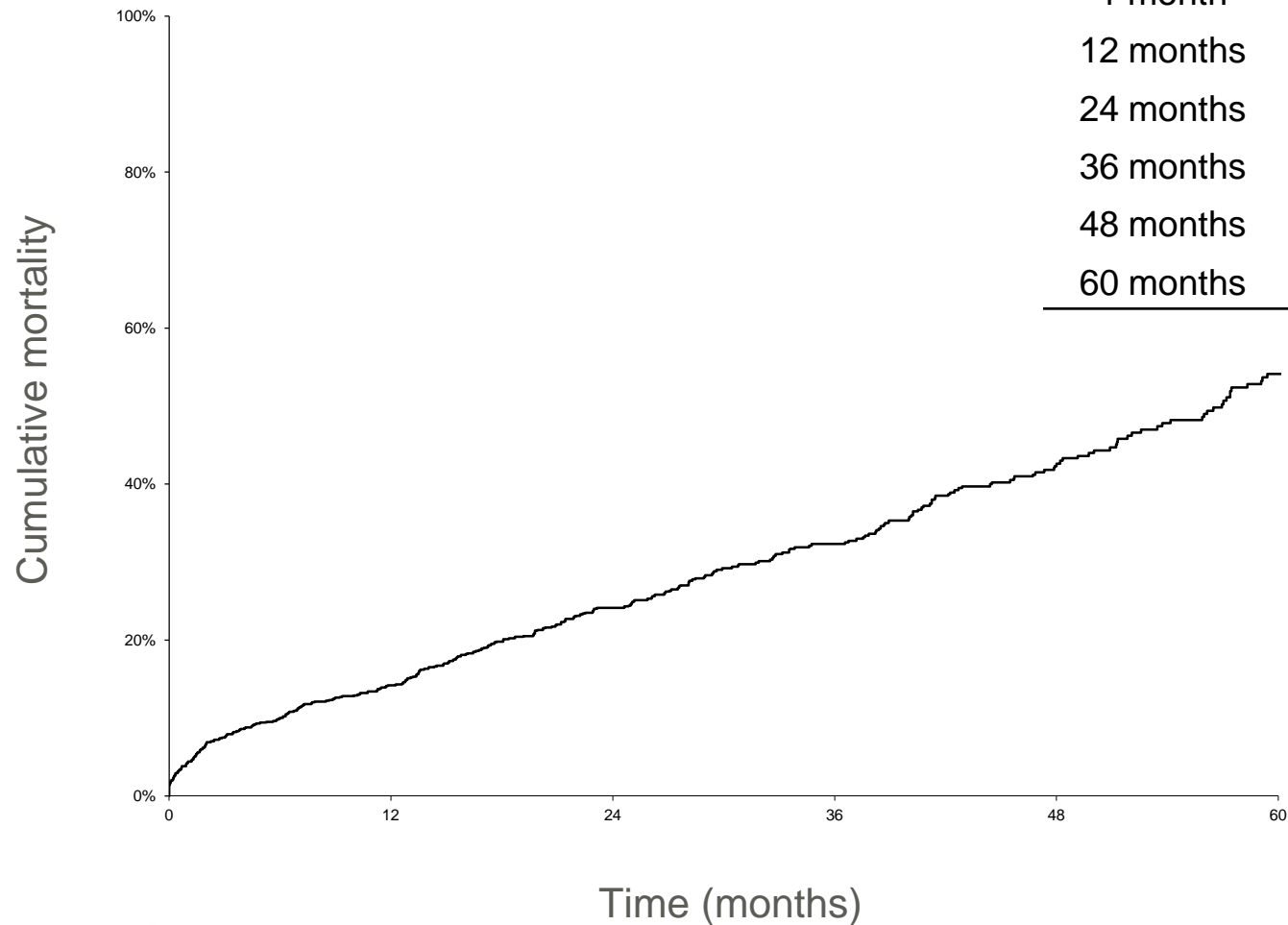


CCS angina status



Long-term mortality

Time	Cumulative mortality
1 month	4.2% (3.2%; 5.2%)
12 months	14.2% (12.2%; 16.2%)
24 months	24.1% (21.3%; 26.9%)
36 months	32.3% (28.9%; 35.6%)
48 months	42.3% (38.3%; 46.4%)
60 months	54.1% (49.2%; 59.1%)



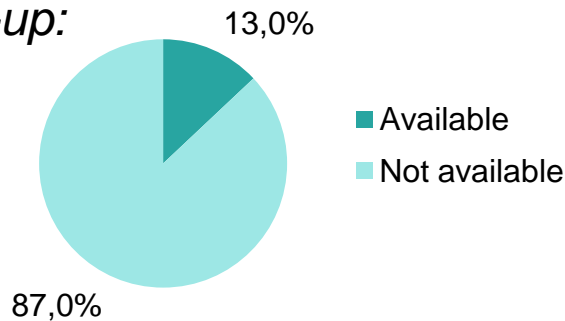


Follow-up in TAVI 2 registry



Availability of follow-up records in TAVI 2 registry

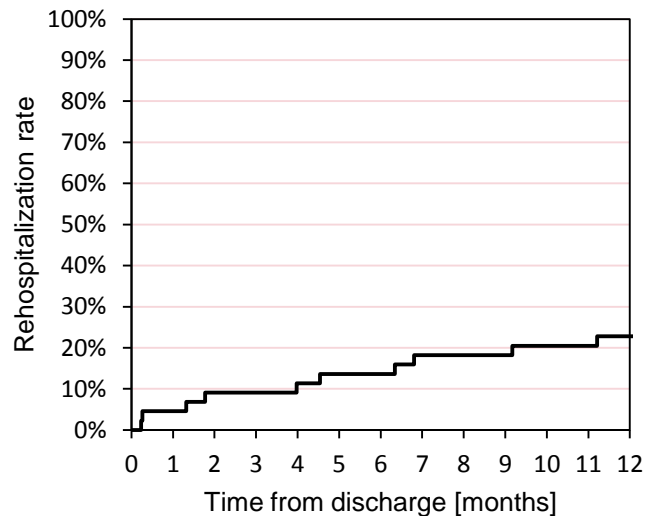
Follow-up:



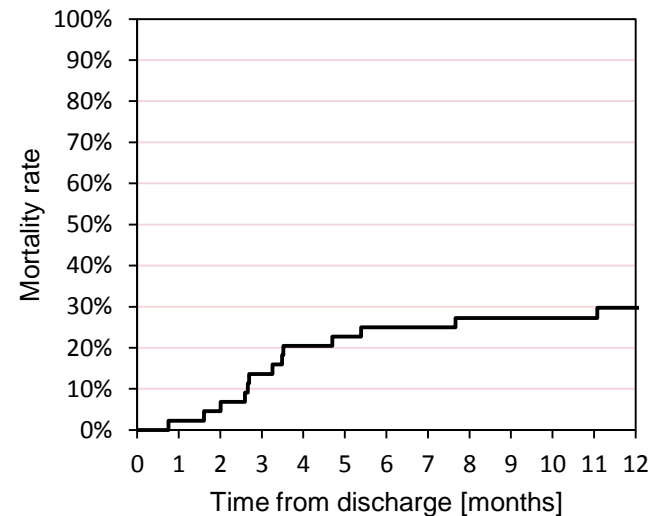
Time from discharge to contact date [days]:

N_{valid}	Mean (\pm SD)	Median (5th; 95th percentile)
44	309 (\pm 132)	359 (61; 475)

1-year all-cause rehospitalization rate; N = 44:



1-year all-cause mortality rate; N = 44:



The estimated cumulative incidence curves are displayed.

Děkuji za pozornost











