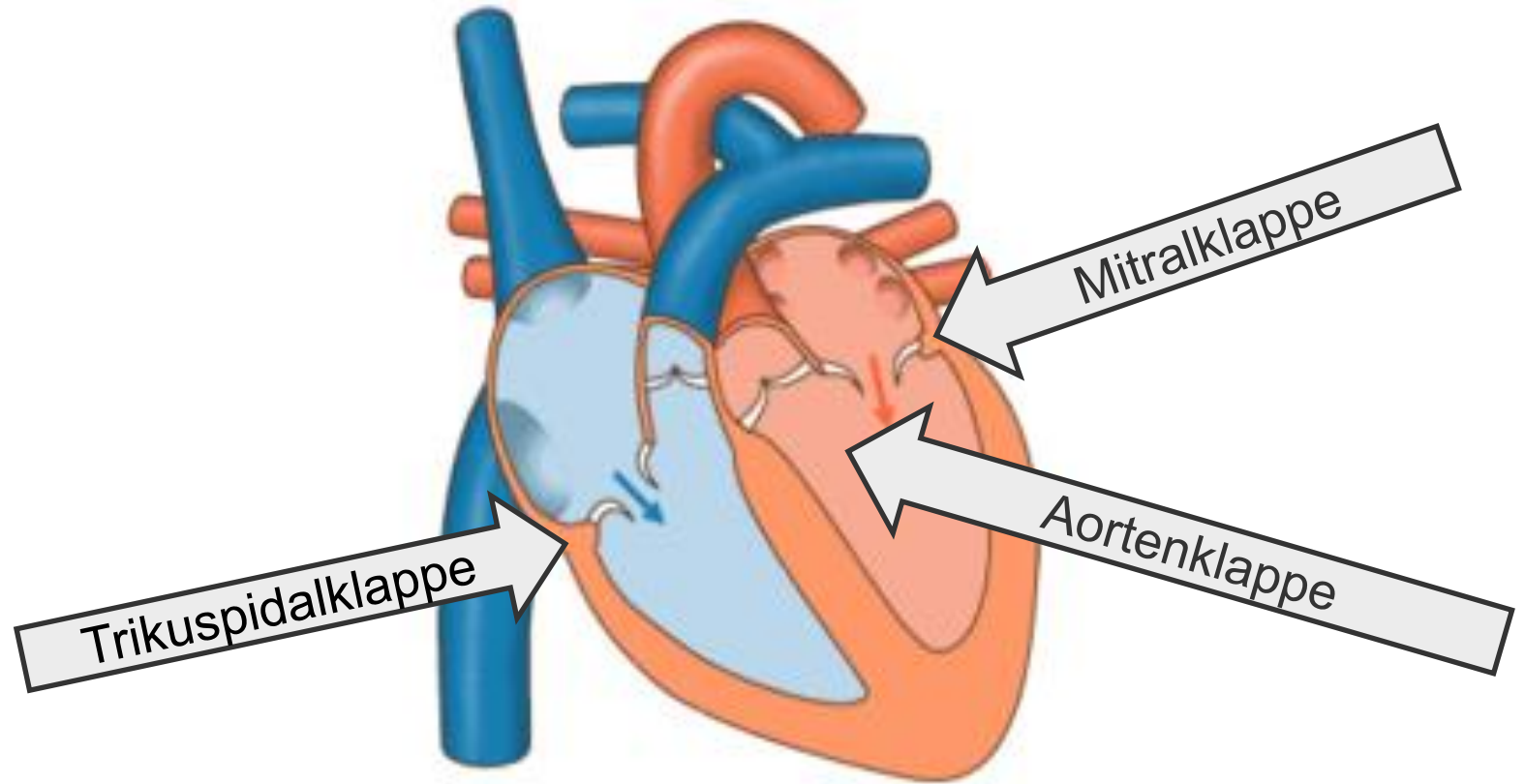
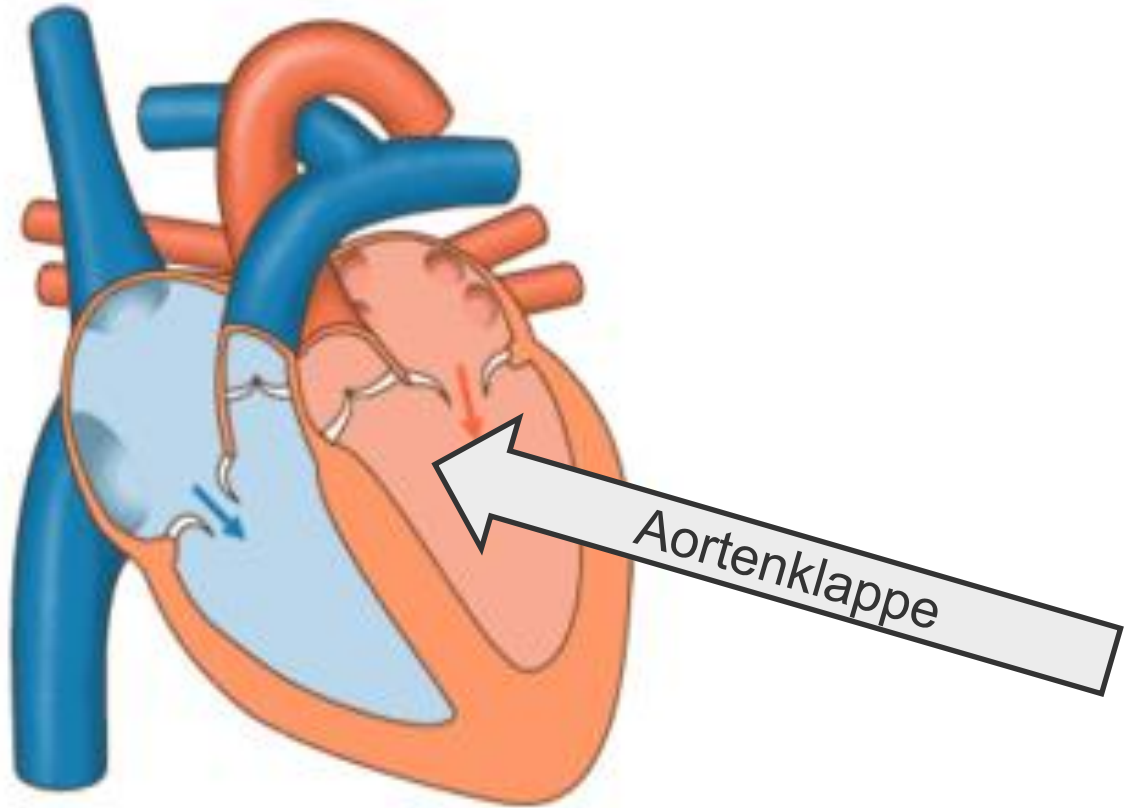


Herzklappenerkrankungen

Prof. Dr. H. Thiele, Leipzig

Prof. Dr. H. Möllmann, Dortmund







PARTNER 3 Study Design

Symptomatic Severe Aortic Stenosis

**Low Risk/TF ASSESSMENT by Heart Team
(STS < 4%)**

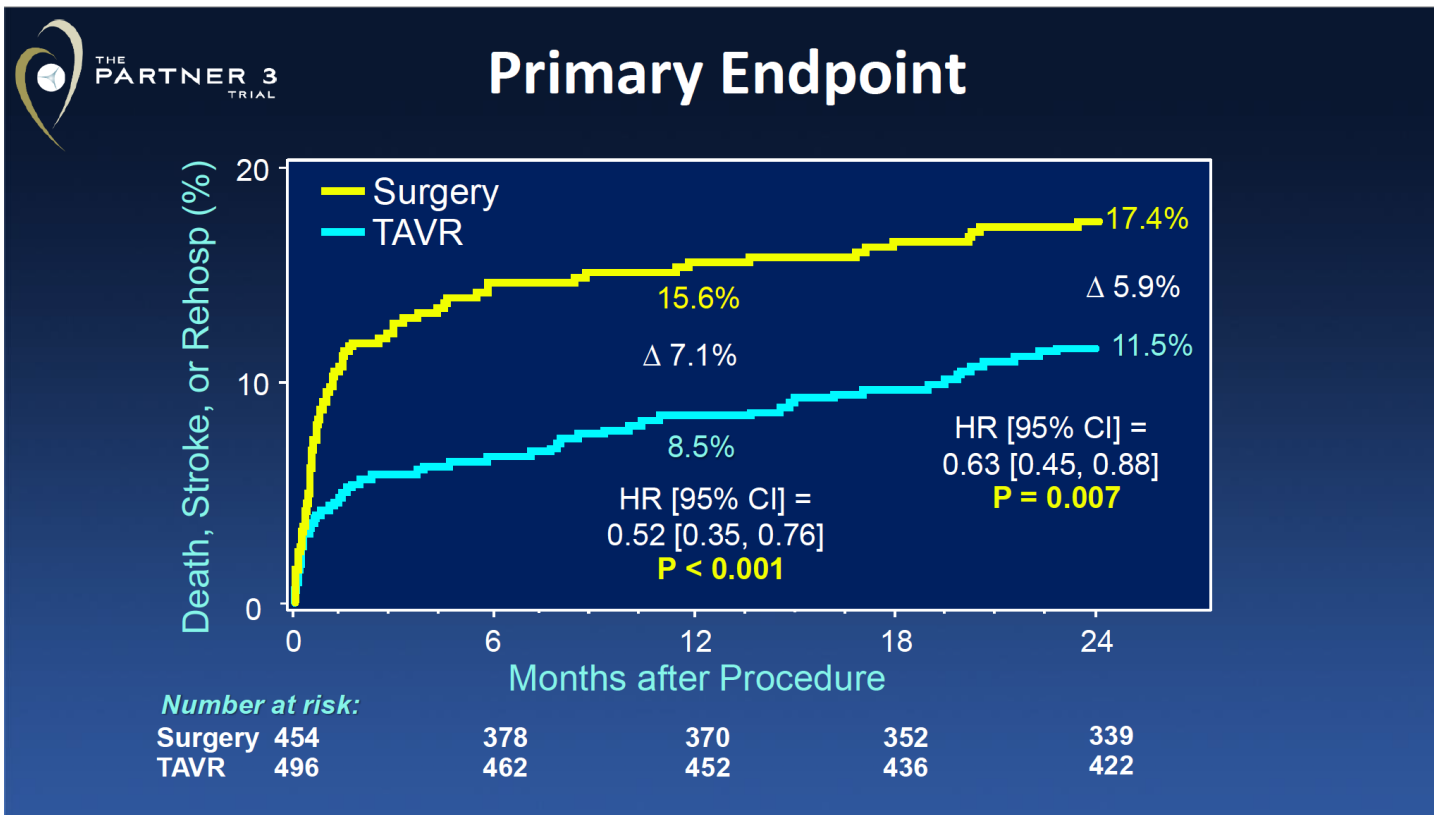
**1:1 Randomization
1000 Patients**

**TAVR
(SAPIEN 3 THV)**

**Surgery
(Surgical Bioprosthetic Valve)**

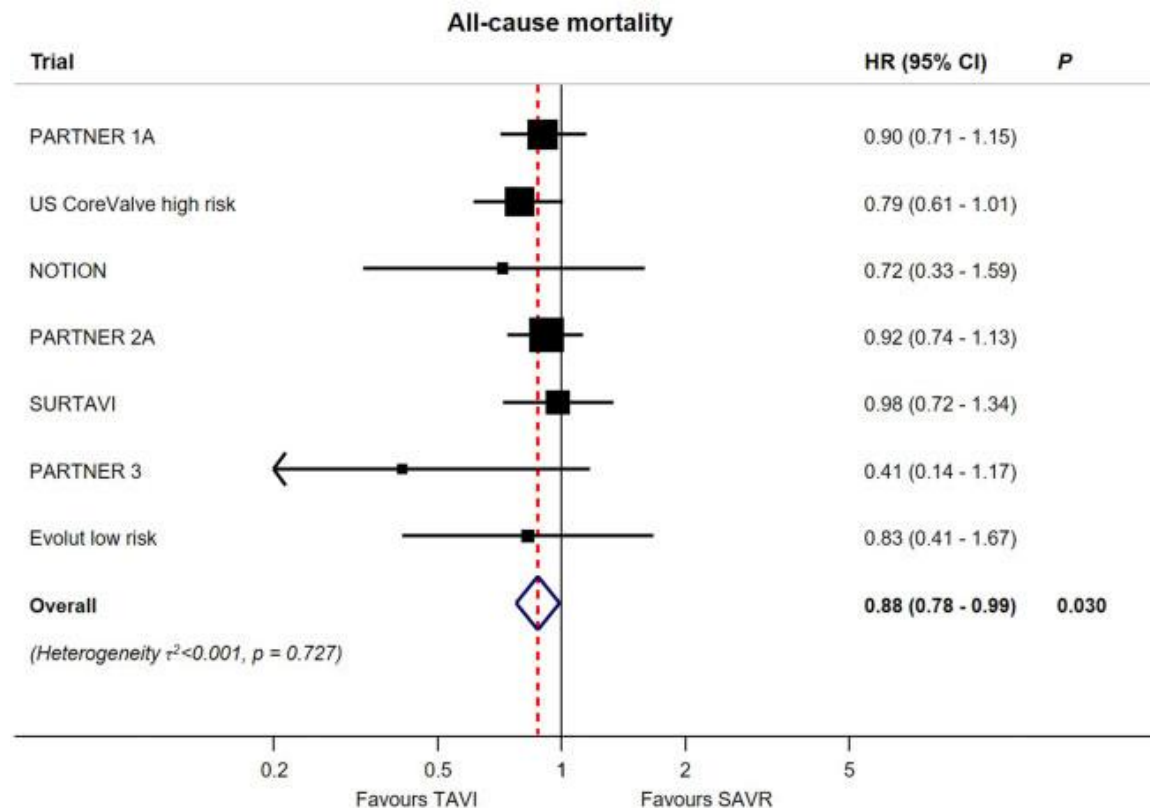
Follow-up: 30 days, 6 mos, and annually through 10 years

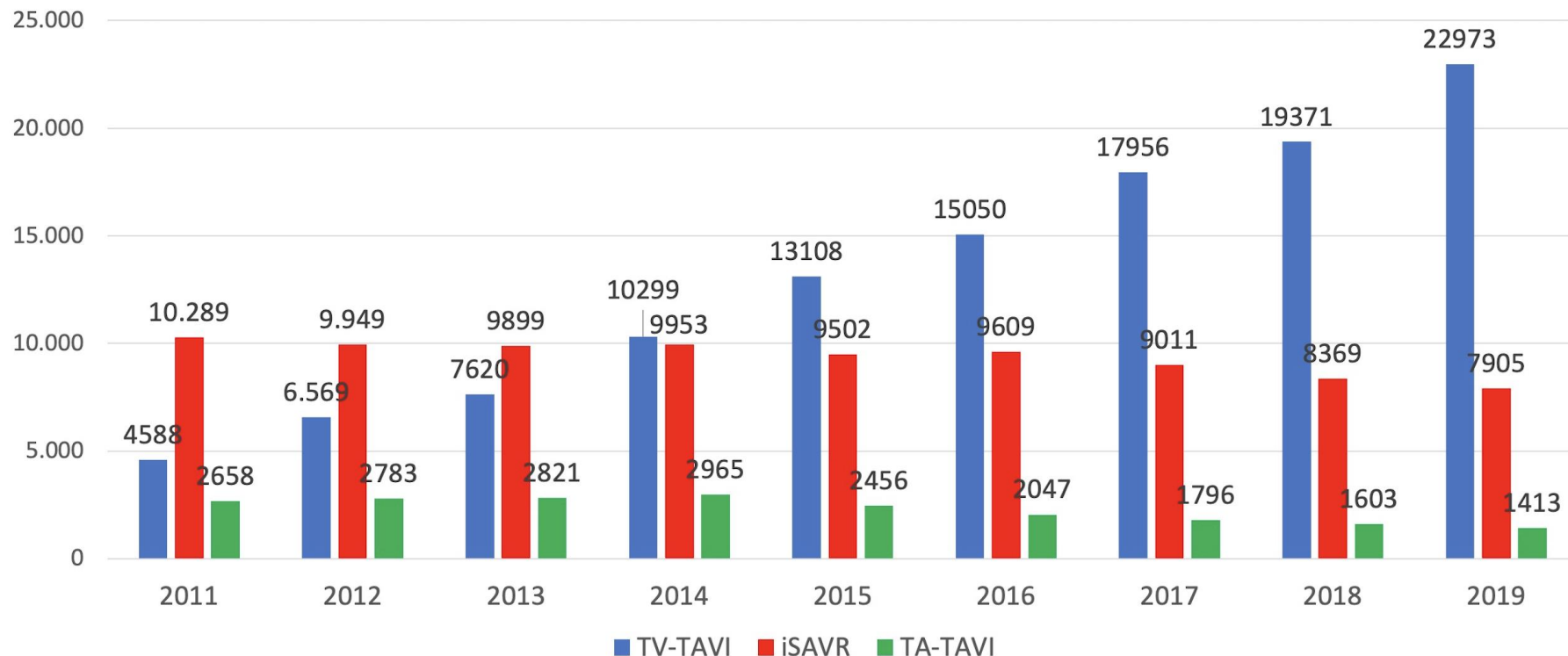
PRIMARY ENDPOINT:
**Composite of all-cause mortality, stroke, or CV re-hospitalization
at 1 year post-procedure**

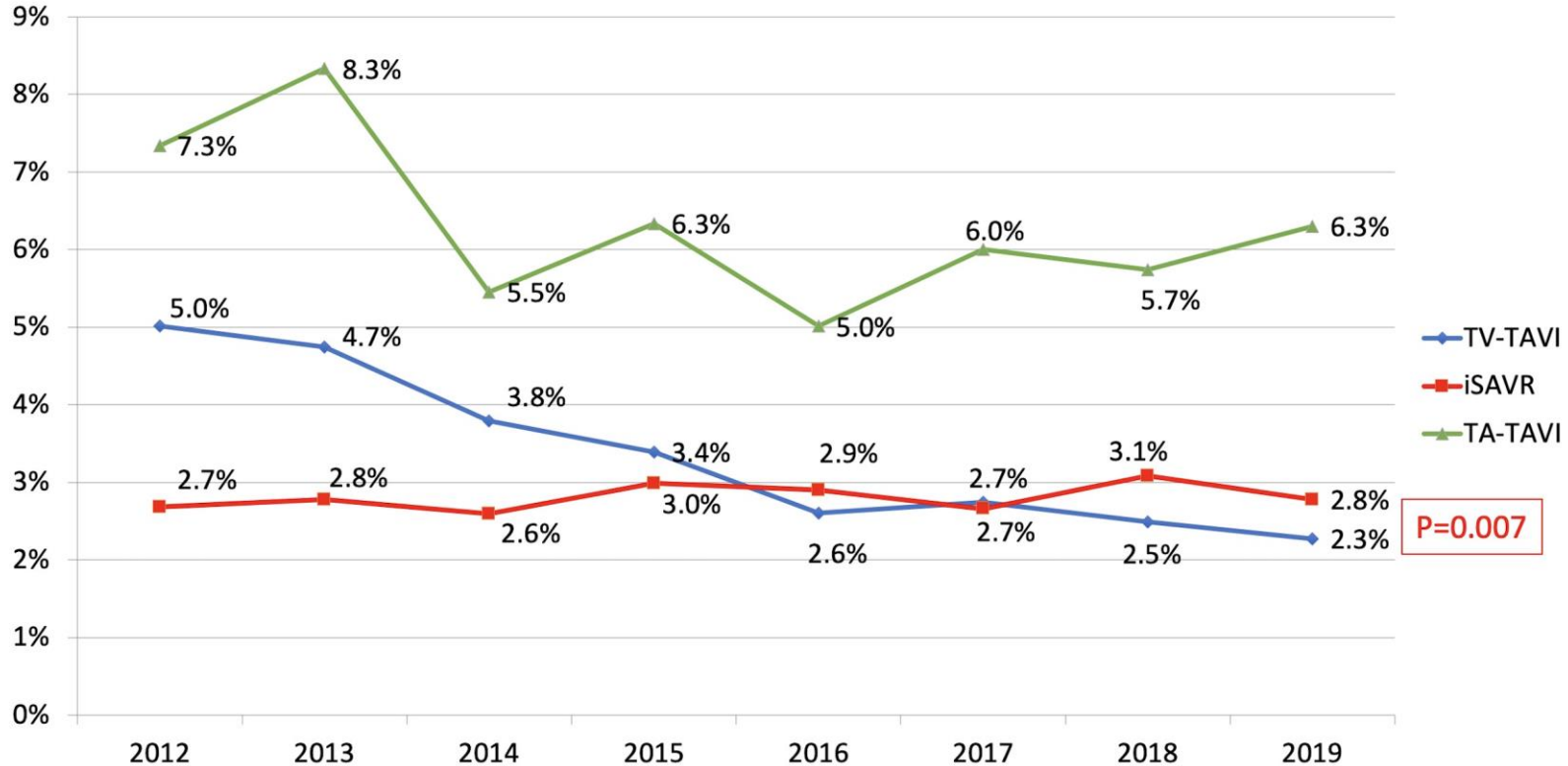




Metaanalyse TAVI vs. SAVR









Der Kardiologe

Konsensuspapiere

Kardiologie

<https://doi.org/10.1007/s12181-020-00398-w>

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⁷Medizinische Klinik I – Kardiologie und Angiologie, Universitätsklinikum Gießen und Marburg GmbH, Gießen, Deutschland

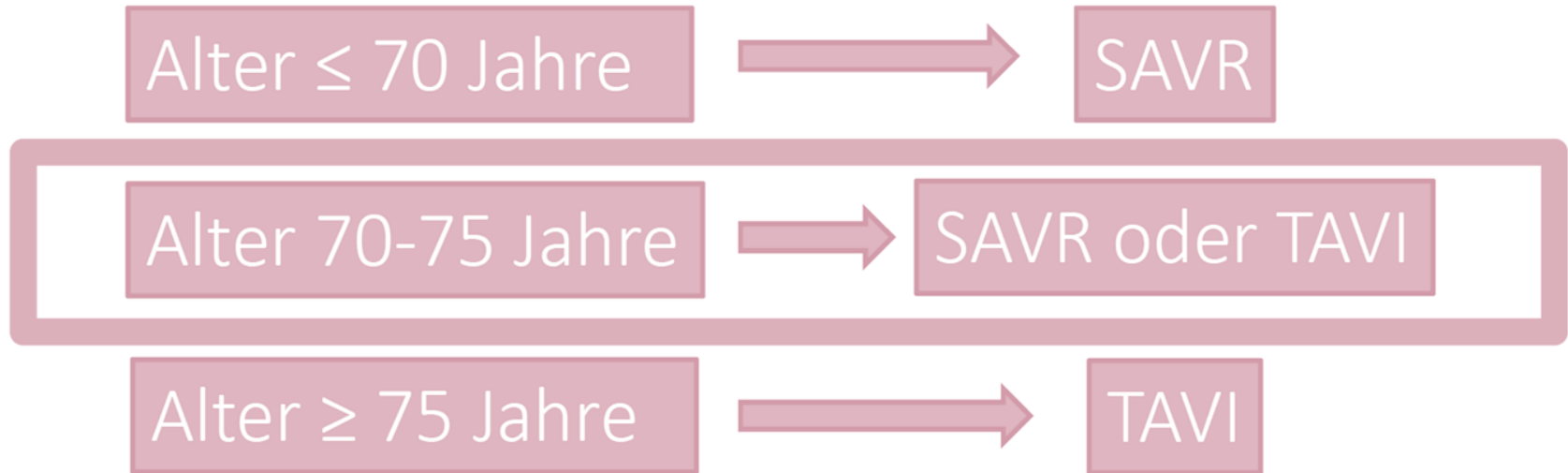
⁸Klinik für Innere Medizin/Kardiologie, Herzzentrum Leipzig, Universität Leipzig, Leipzig, Deutschland

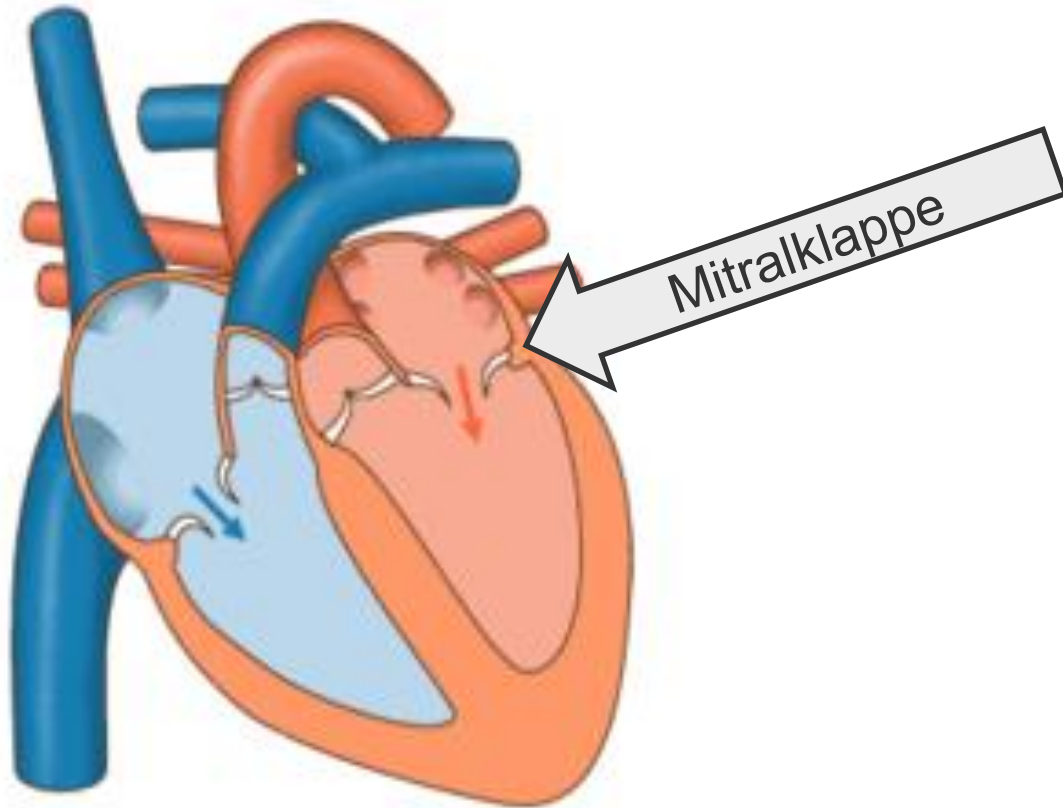
⁹Universitätsklinikum Bonn, Bonn, Deutschland

¹⁰Klinik für Herz- und Thoraxchirurgie, Herz- und Gefäßzentrum Bad Bevensen, Bad Bevensen, Deutschland

¹¹Klinik für Thorax-, Herz- und Thorakale Gefäßchirurgie, Universitätsklinikum Frankfurt, Frankfurt am Main, Deutschland

Konsensuspapier der Deutschen Gesellschaft für Kardiologie (DGK) und der Deutschen Gesellschaft für Thorax-, Herz- und Gefäßchirurgie (DGTHG) zur kathetergestützten Aortenklappenimplantation (TAVI) 2020







The COAPT Trial

Cardiovascular Outcomes Assessment of the MitraClip Percutaneous Therapy for Heart Failure Patients with Functional Mitral Regurgitation

A parallel-controlled, open-label, multicenter trial in 614 patients with heart failure and moderate-to-severe (3+) or severe (4+) secondary MR who remained symptomatic despite maximally-tolerated GDMT

Randomize 1:1*

MitraClip + GDMT
N=312

GDMT alone
N=302

Follow-up at 30d, 6mo, 1y, 18mo, 2y, 3y, 4y, 5y



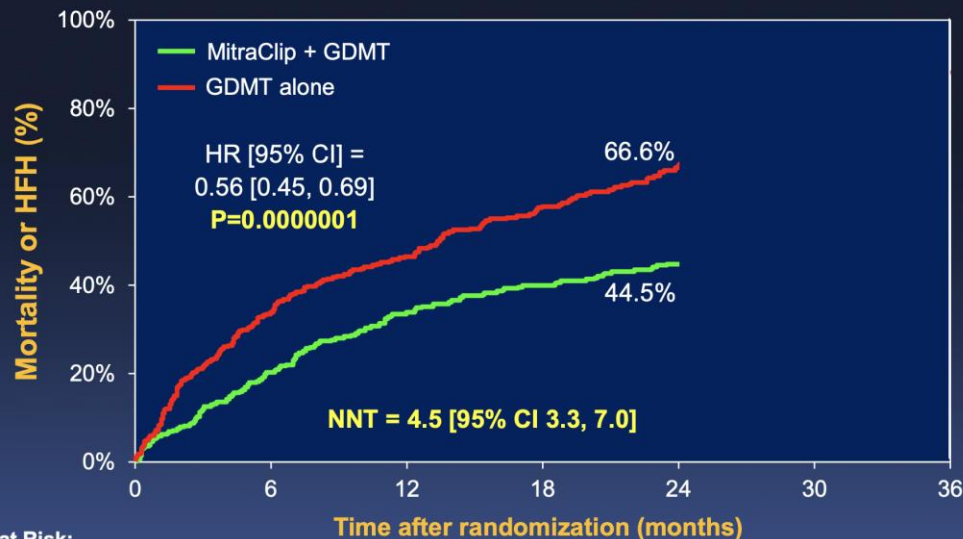
*Stratified by cardiomyopathy etiology (ischemic vs. non-ischemic) and site





All-Cause Mortality or HF Hospitalization

All patients, ITT, including crossovers



at Risk:

MitraClip + GDMT	302	238	196	176	148
GDMT alone	312	206	156	120	87

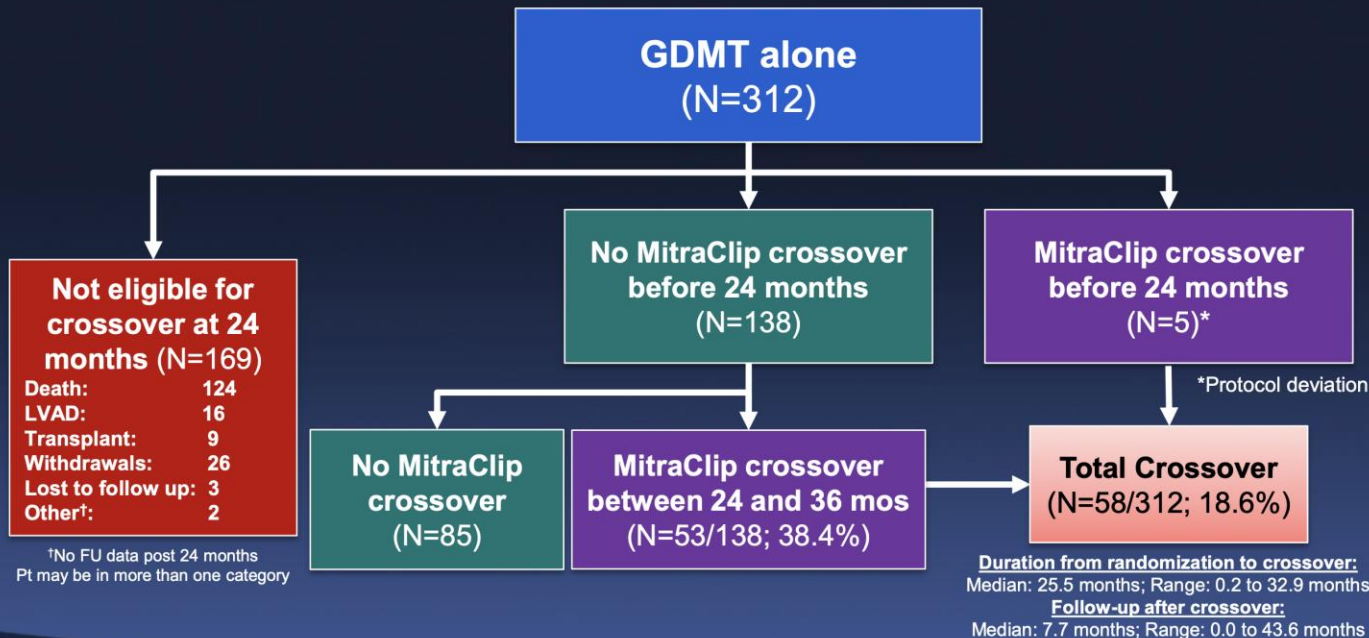


Event rates are Kaplan-Meier time-to-first event estimates





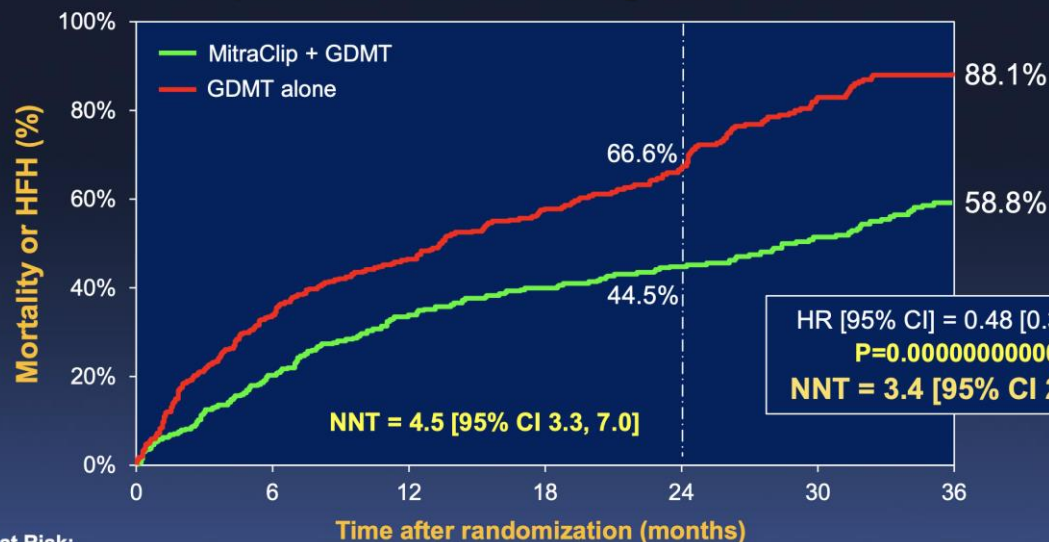
MitraClip Crossovers in GDMT-Assigned Patients





All-Cause Mortality or HF Hospitalization

All patients, ITT, including crossovers



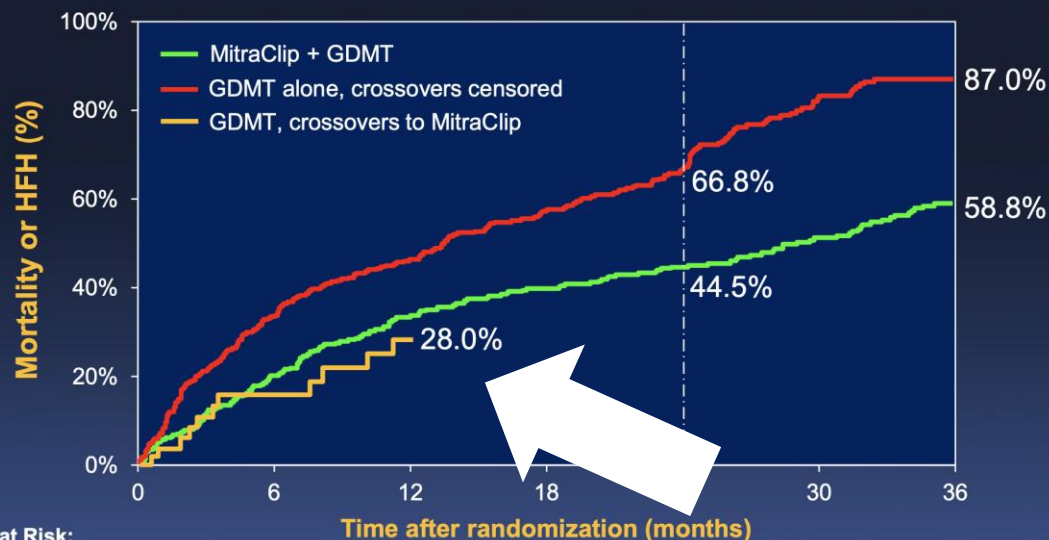
at Risk:

MitraClip + GDMT	302	238	196	176	148	101	66
GDMT alone	312	206	156	120	87	37	20



All-Cause Mortality or HF Hospitalization

GDMT pts censored at time of crossover; Crossovers landmarked at MitraClip procedure



# at Risk:	0	6	12	18	24	30	36
MitraClip + GDMT	302	238	196	176	148	101	66
GDMT only, crossovers censored	312	205	155	119	85	33	19
GDMT crossovers to MitraClip	58	30	22				



tct2019

For crossover patients, follow-up duration is from the crossover procedure date; events at procedure dates are excluded. Event rates are Kaplan-Meier time-to-first event estimates, with landmark analysis for crossover patients



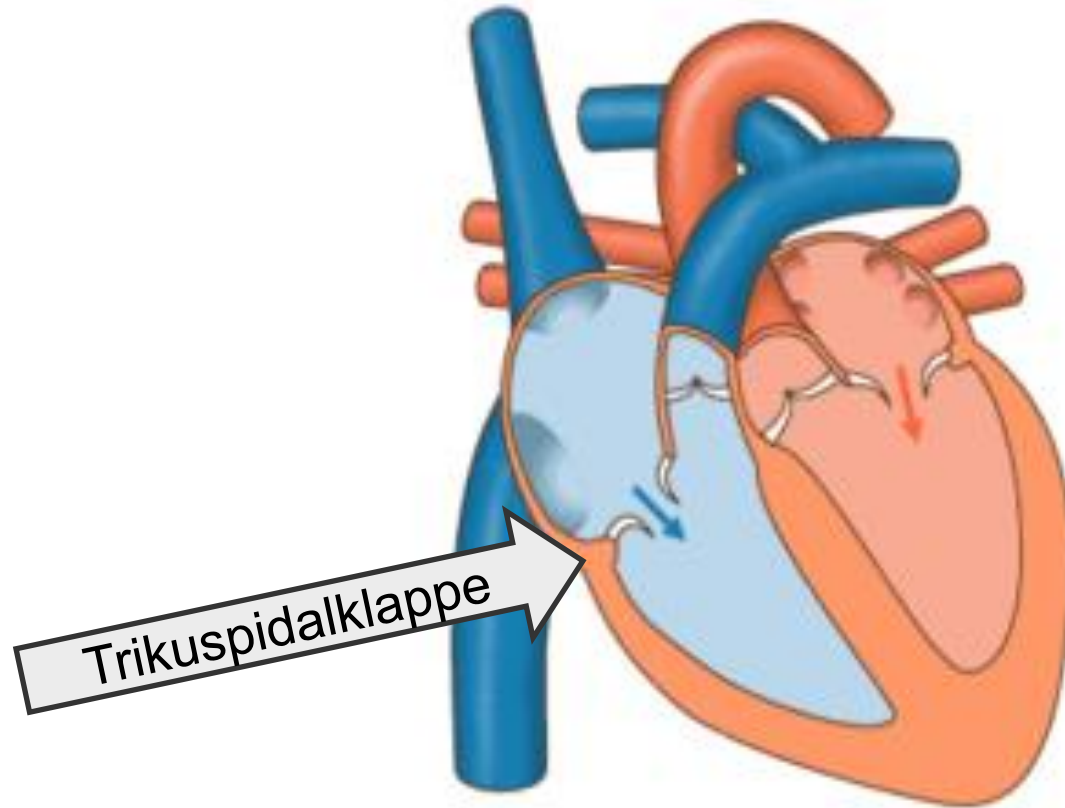
Cardiovascular®
Research Foundation

Multivariable Predictors of Death or HFH Within 36 Months

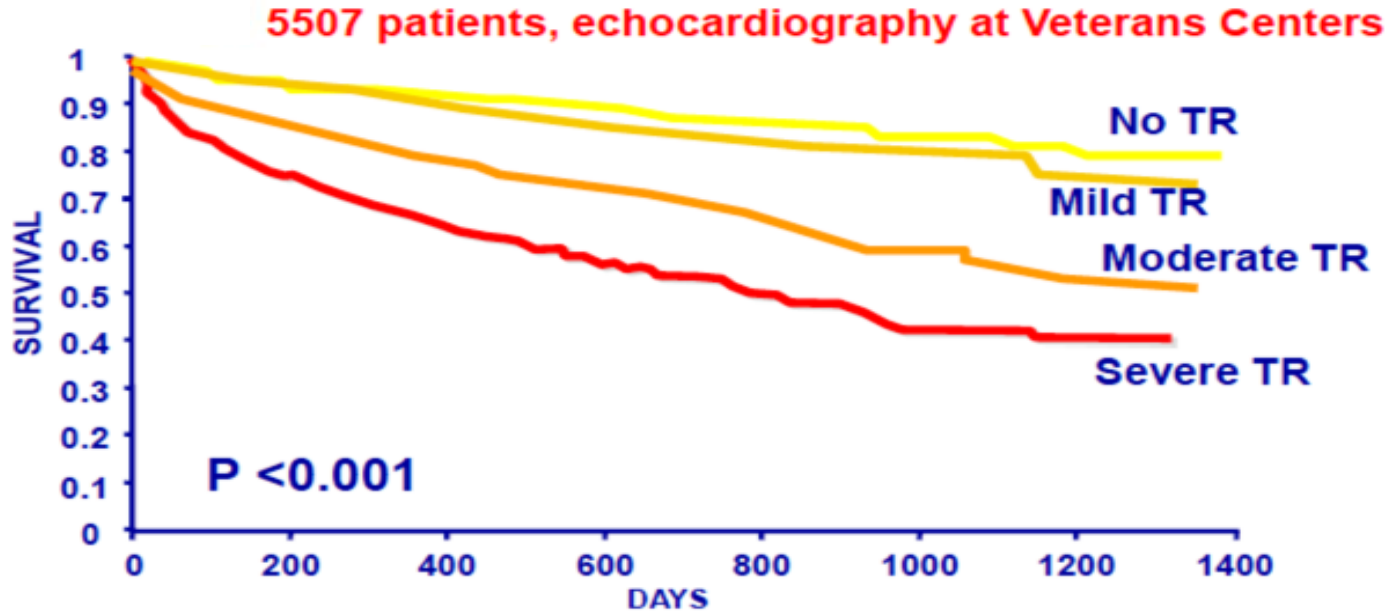
GDMT only group with MitraClip crossover as a time-adjusted covariate

	Hazard Ratio [95% CI]	P-Value
Treatment with MitraClip	0.43 [0.24, 0.78]	0.006
BNP (per 100 pg/mL)	1.02 [1.01, 1.03]	<0.0001
Vasodilator use (hydralazine or nitrates)	1.91 [1.37, 2.66]	0.0001
Systolic blood pressure (per 1 mmHg)	0.99 [0.98, 1.00]	0.004
STS replacement score (per 1 unit)	1.04 [1.01, 1.07]	0.005
Beta-blocker use	0.57 [0.37, 0.88]	0.01
LVEDV (per 10 mL)	1.02 [1.00, 1.04]	0.02

Variables entered the final model include: ACEi/ARB/ARNI use, aldosterone inhibitor use, history of anemia, beta-blocker use, BNP, serum creatinine, treatment with MitraClip, EROA, sex, vasodilators (hydralazine or nitrates), LVEDV, LVEF, prior PCI/CABG, renal disease, 6MWD, prior stroke, STS replacement score, SBP, TR grade; other variables tested had $\alpha > 0.20$ in univariable analysis, were colinear with the present variables or had <90% values



Trikuspidalklappe



After adjustment for age, LVEF, IVC size, RV size and RV function, S-PAP

Nath JACC 2004; 43: 405-9



Medical Approach

Cause of funktional TR?

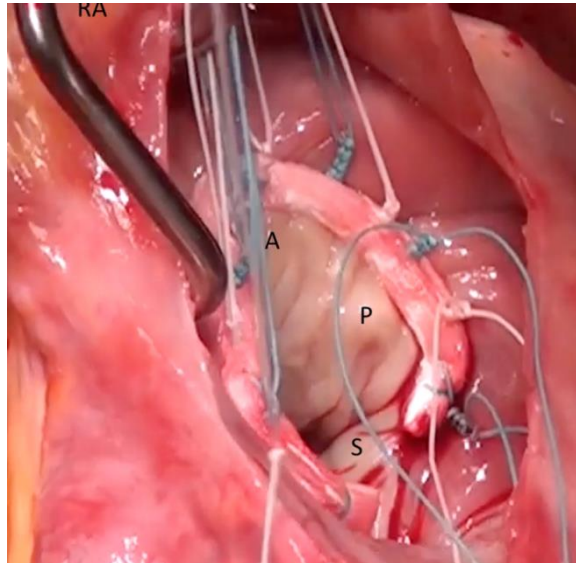
1. CHF therapy
2. Specific PAH-therapy
3. Anticoagulation in PE

"Symptomatic"

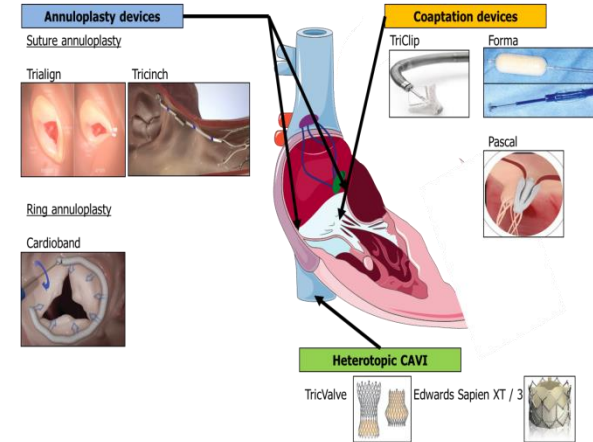
1. Loop diuretics
2. Aldosterone antagonists

Surgery

TC Reconstr/Replac.



Interventional



1.6M

TR prevalence



<10,000

*Surgical procedures
annually*



German Heart Surgery Report 2016: The Annual Updated Registry of the German Society for Thoracic and Cardiovascular Surgery

Andreas Beckmann¹ Anne-Katrin Funkat² Jana Lewandowski¹ Michael Frie³ Markus Ernst⁴
Khosro Hekmat⁵ Wolfgang Schiller⁶ Jan F. Gummert⁷ Wolfgang Harringer⁸

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⁵ Department of Cardiac and Thoracic Surgery, University of Cologne, Cologne, Germany

⁶ Clinic for Cardiac Surgery, University of Bonn, Bonn, Germany

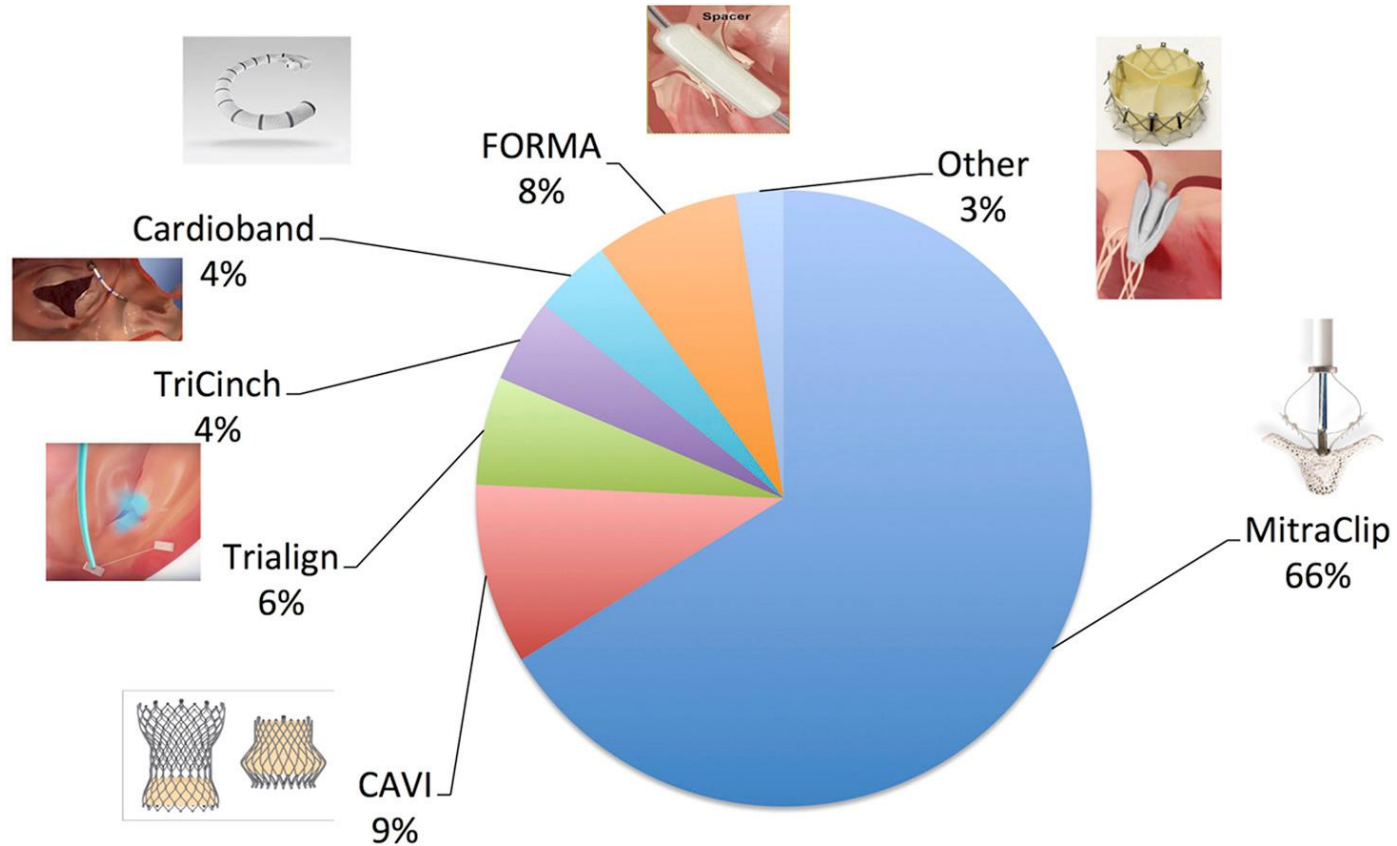
⁷ Clinic for Thoracic and Cardiovascular Surgery, Heart and Diabetes Center NRW, Bad Oeynhausen, Germany

⁸ Clinic for Cardiac, Thoracic and Vascular Surgery, Klinikum Braunschweig gGmbH, Braunschweig, Germany

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Thorac Cardiovasc Surg 2017;65:505–518.

	n	Deaths	Mortality
Tricuspid valve	531	58	10.9
Sternotomy	381	47	12.3
Minimal invasive	125	10	8.0

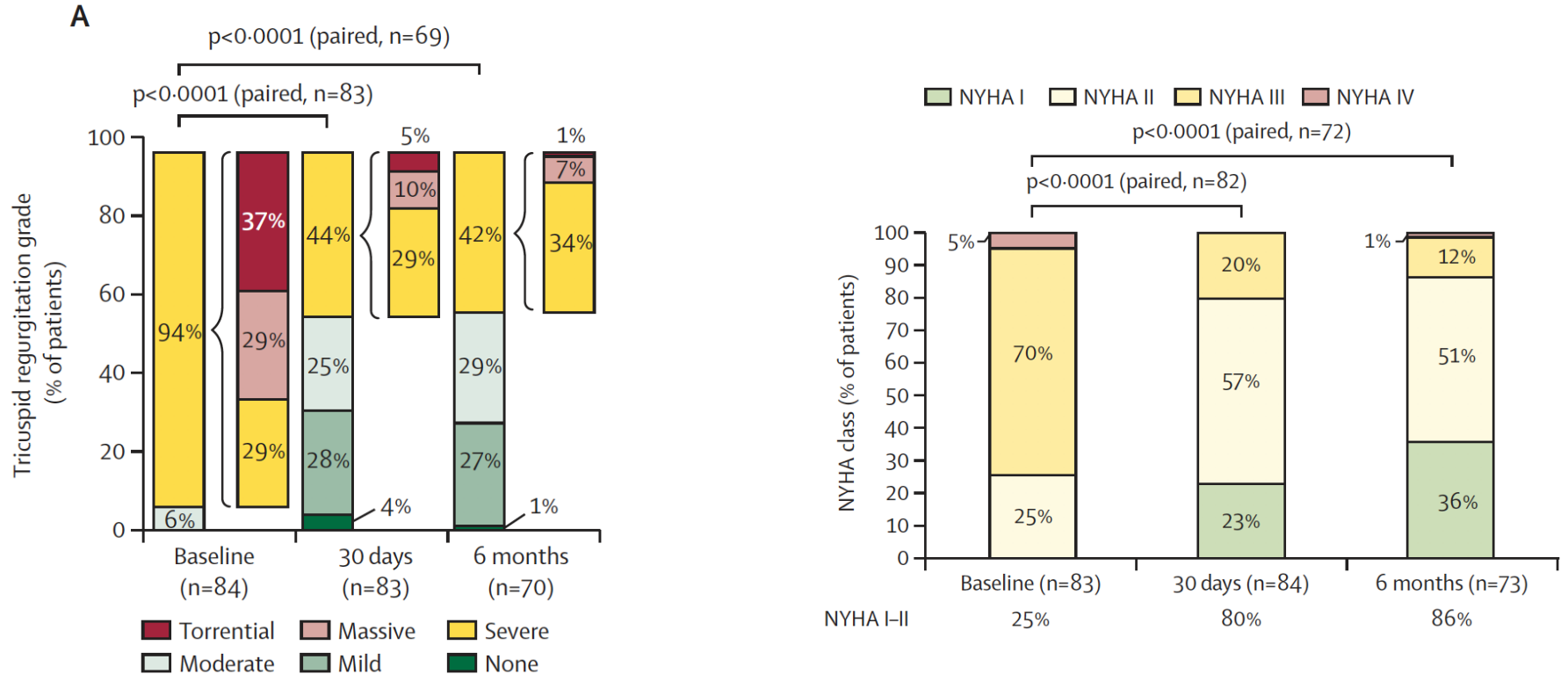


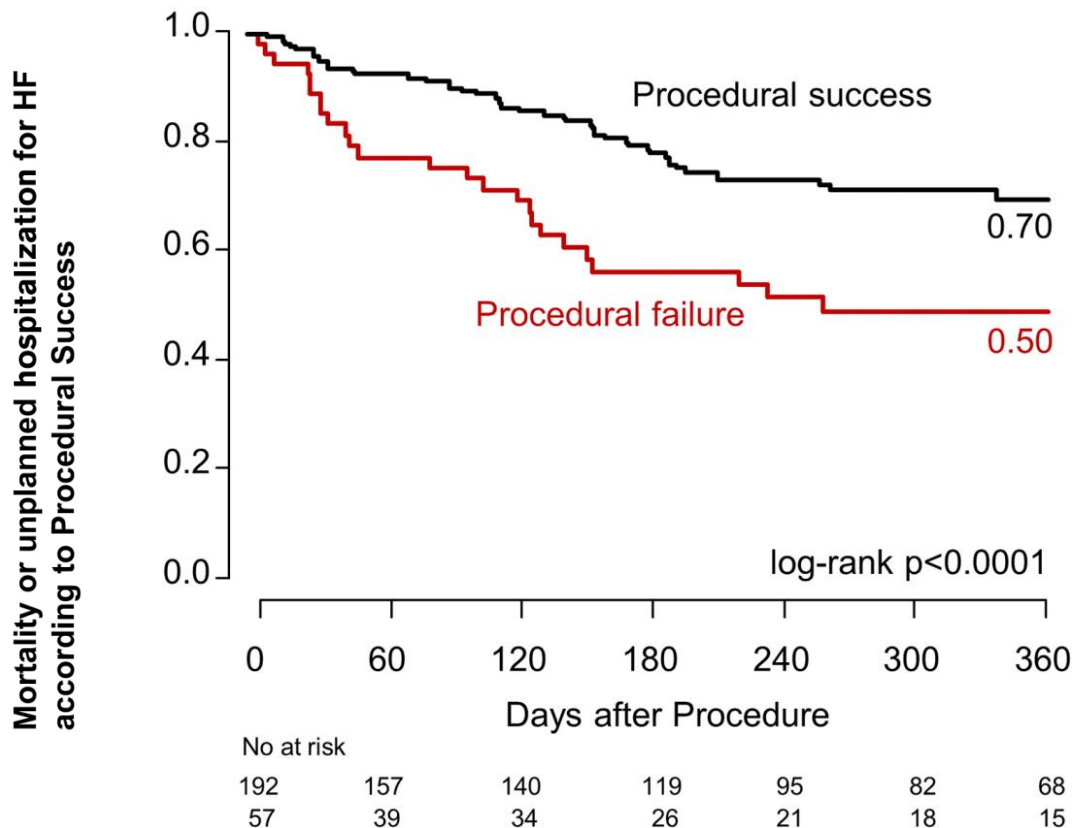


Transcatheter edge-to-edge repair for reduction of tricuspid regurgitation: 6-month outcomes of the TRILUMINATE single-arm study



Georg Nickenig, Marcel Weber*, Philipp Lurz, Ralph Stephan von Bardeleben, Marta Sitges, Paul Sorajja, Jörg Hausleiter, Paolo Denti, Jean-Noël Trochu, Michael Näbauer, Abdellaziz Dahou, Rebecca T Hahn*





Vielen Dank!