



Quality of life in 3875 patients after Transcatheter Aortic Valve Implantation 1-year-data from the German Aortic Valve Registry

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on behalf of the GARY Registry

GARY

German Aortic Valve Registry

Deutsches Aortenklappenregister



Deutsches
Aortenklappenregister

German Society of Thoracic
and Cardiovascular Surgery



joint project



German Society
of Cardiology

GARY



Deutsches
Aortenklappenregister

Executive Board

Steering Committee

BQS

INSTITUT FÜR QUALITÄT
& PATIENTENSICHERHEIT

data managment

**Agreement of
participation**

hospitals

**Informed
consent**

patients

supported by:



German Heart
Foundation



Edwards Lifesciences Germany GmbH



Medtronic GmbH



Symetis



JenaValve Technology GmbH



Sorin Group



St. Jude Medical GmbH



Direct Flow Medical Inc.



EQ-5D Dimension

Mobility

- I have no problems in walking about
- I have some problems in walking about
- I am confined to bed

Self-Care

- I have no problems with self-care
- I have some problems washing or dressing myself
- I am unable to wash or dress myself

Usual Activities (e.g. work, study, housework, family or leisure activities)

- I have no problems with performing my usual activities
- I have some problems with performing my usual activities
- I am unable to perform my usual activities

Pain/Discomfort

- I have no pain or discomfort
- I have moderate pain or discomfort
- I have extreme pain or discomfort

Anxiety/Depression

- I am not anxious or depressed
- I am moderately anxious or depressed
- I am extremely anxious or depressed

- ☐ no complains
- ☐ mild complains
- ☐ severe complains

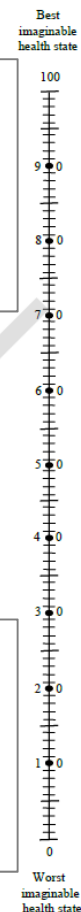
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Visual analogue scale (VAS)

**Best
imaginable
health status
= 100%**

**Your own
health state
today**

**Worst
imaginable
health status
= 0%**





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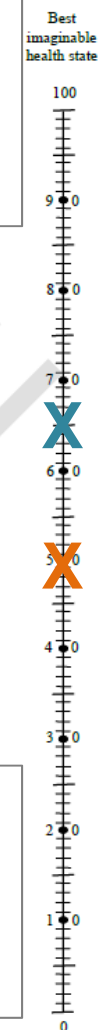
Pre-OP – 1-Year-FU

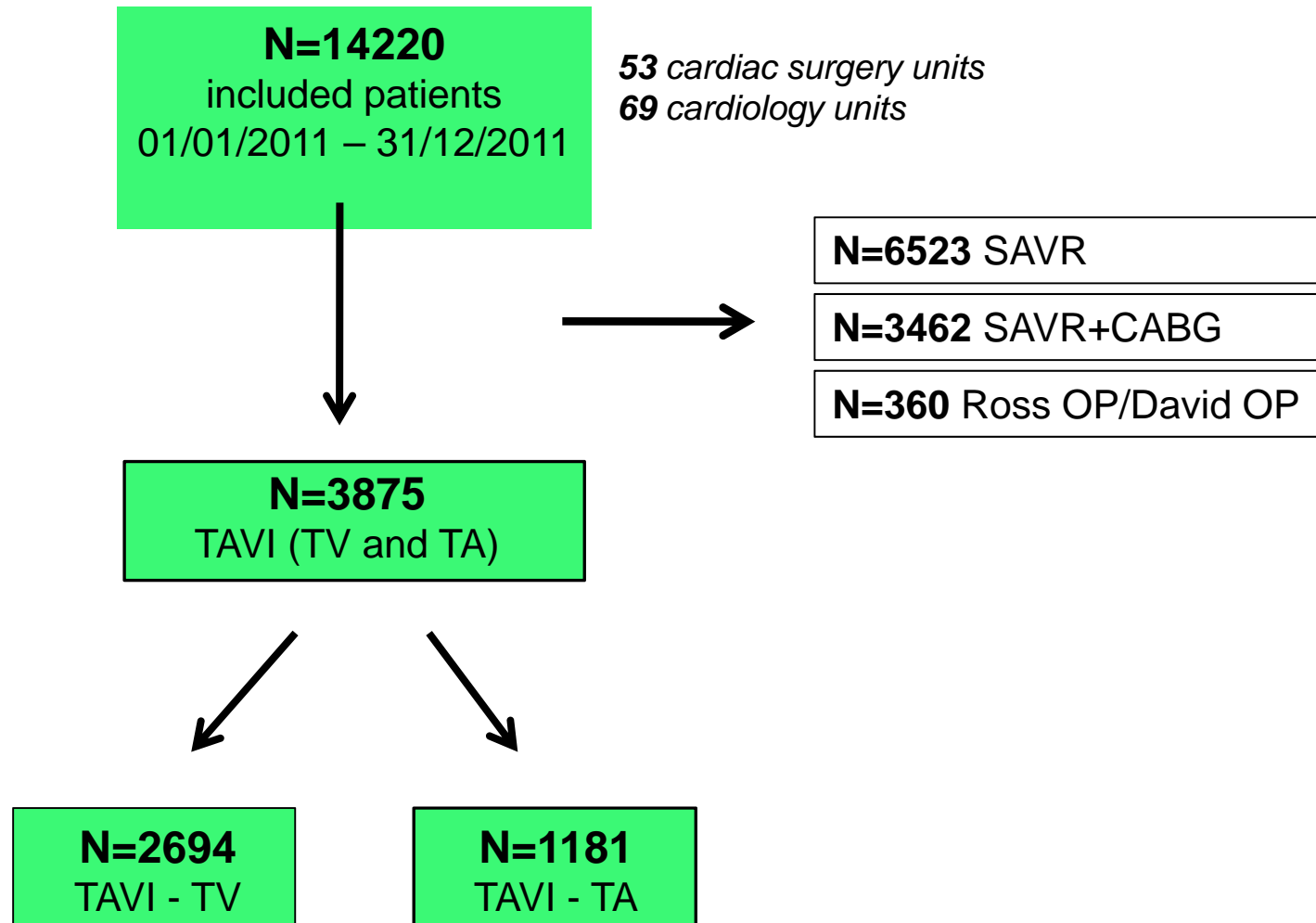
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**Best
imaginable
health status
= 100%**

**Your own
health state
today**

**Worst
imaginable
health status
= 0%**





Parameter	TAVI-TV (n=2694)	TAVI-TA (n=1181)
EQ-5D (pre OP)	2553 (94.8%)	1136 (96.2%)
EQ-5D (1-year FU)	1782 (66.1%)	715 (60.5%)
FU denied	98 (3.6%)	32 (2.7%)
Patient alive (national population register)	179 (6.6%)	74 (6.3%)
1-year mortality	565 (21%)	328 (27.8%)
lost to FU	70 (2.6%)	32 (2.7%)

Preoperative patient characteristics



Parameter	TAVI - TV (n=2694)	TAVI - TA (n=1181)	p-value
Age >75 (%)	86.3	84.0	n.s.
Female (%)	58.8	49.8	<0.001
CAD (%)	53.6	56.1	n.s.
PAVD	16.4	28.4	<0.001
Previous cardiac surg. (%)	17.7	29.6	<0.001
Pulm. Hypertension (%)	39.8	23.4	<0.001
IDDM (%)	13.3	17.5	0.001
Atrial fibrillation (%)	28.9	29.5	n.s.
COPD (with medication) (%)	15.1	14.1	n.s.
Log EuroScore (mean)	25.9 ± 18.1	24.5 ± 17.2	n.s.
EF			
Normal (%)	60.4	57.2	
30-50% (%)	30.3	35.4	
< 30% (%)	9.3	7.5	
MI ≥2° (%)	30.5	28.1	n.s.
AOA (cm ²) (mean ± SD)	0.68 ± 0.25	0.68 ± 0.20	n.s.
Δ P _{mean} (mean ± SD)	46.1 ± 17.6	43.7 ± 16.3	<0.001
Δ P _{max} (mean ± SD)	73.4 ± 26.7	71.4 ± 25.0	n.s.

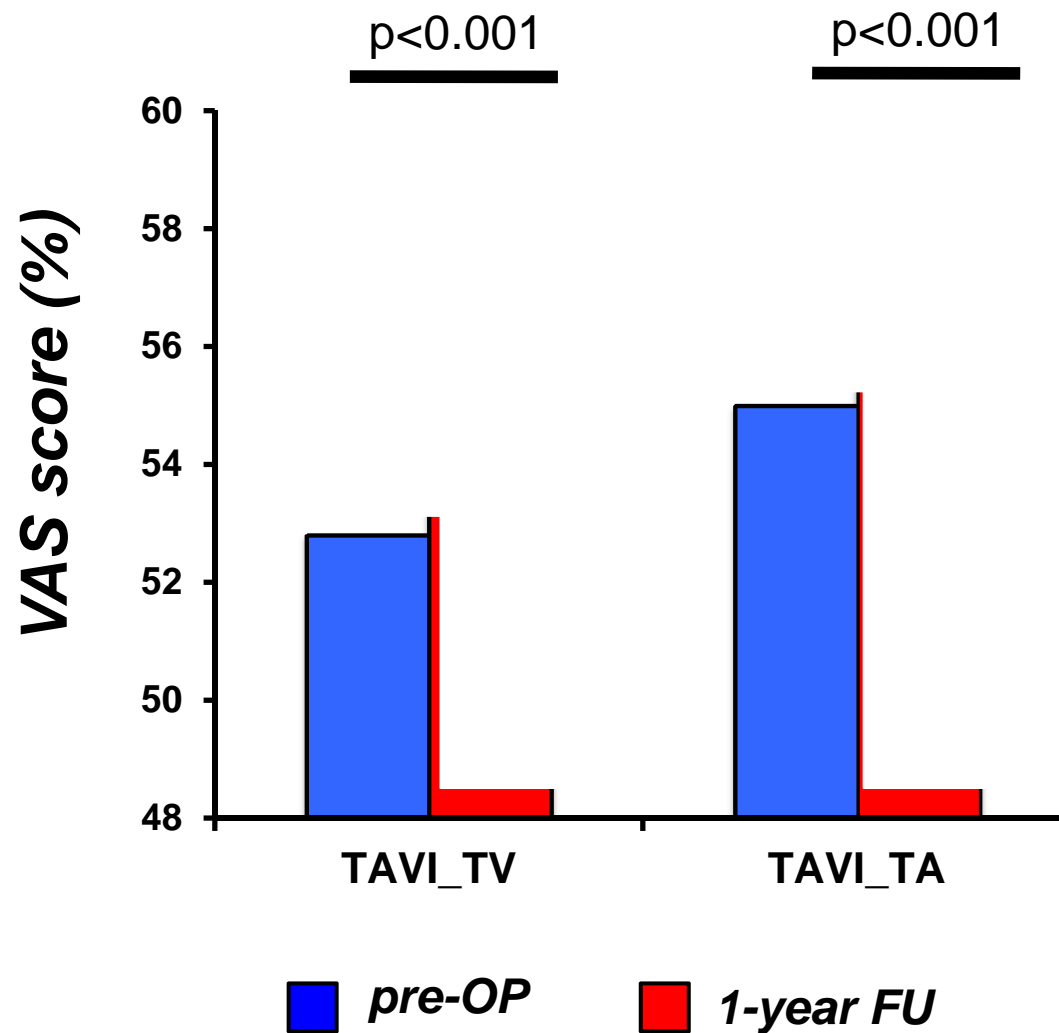
Procedural Patient characteristics

Parameter	TAVI – TV (n=2694)	TAVI – TA (n=1181)	p-value
General anesthesia (%)	43.7	94.9	<0.001
Procedure time [min] (mean±SD)	92 ± 51	100 ± 65	<0.001
Radiation [min] (mean±SD)	17.9 ± 11	9.0 ± 18.6	<0.001
Contrast [ml] (mean±SD)	174 ± 86	117 ± 62	<0.001
Conversion to open heart surgery (%)	1.4	2.0	n.s.
CPB used (%)	5.4	1.5	<0.001

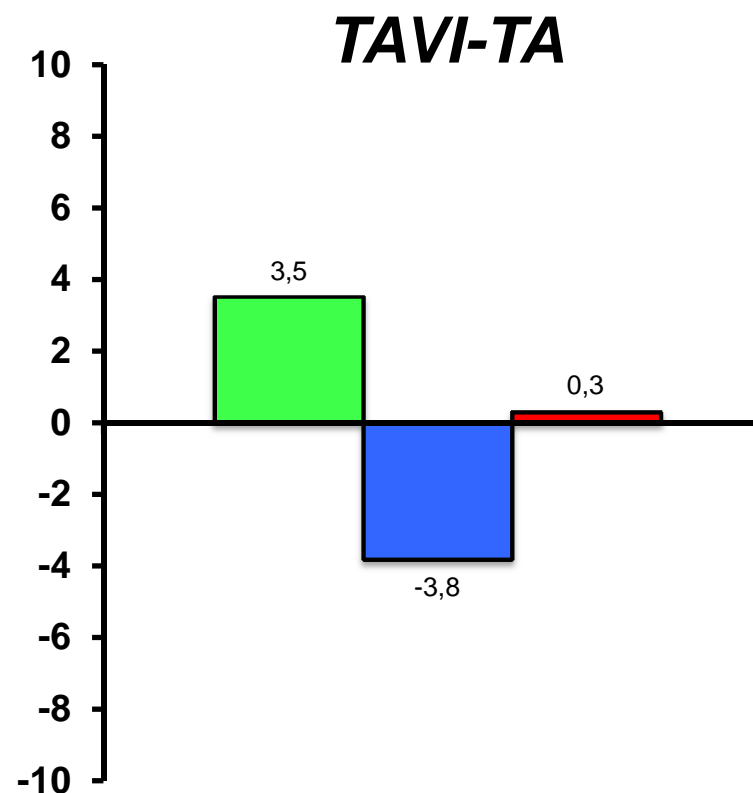
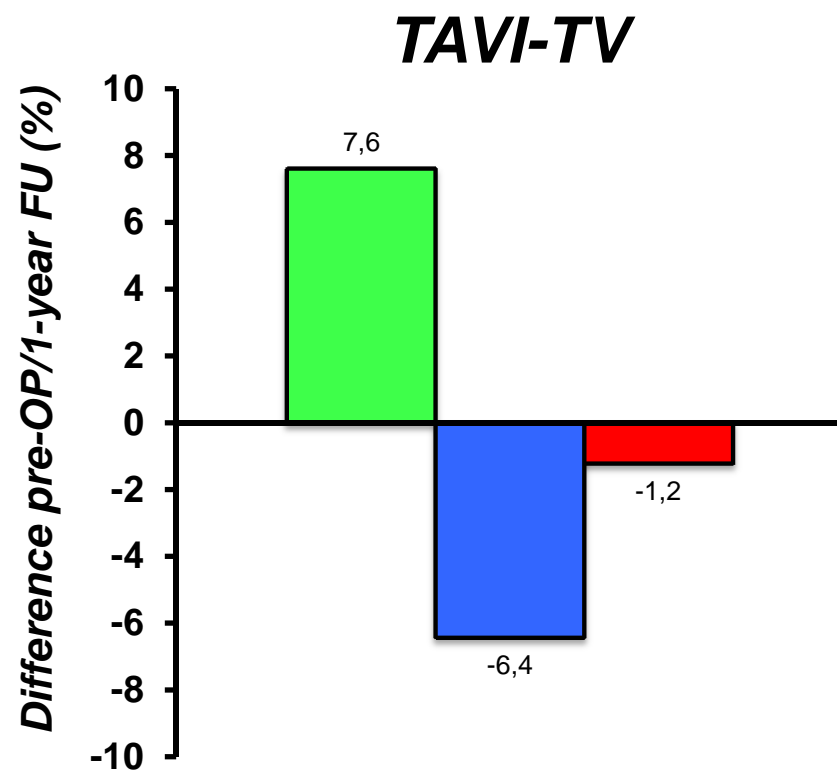
Postoperative Patient characteristics



Parameter	TAVI - TV (n=2694)	TAVI - TA (n=1181)	p-value
In-hospital mortality (%)	5.1	7.7	0.002
TIA (%)	1.8	1.2	n.s.
Stroke (%)	1.9	2.3	n.s.
Myocardial infarction (%)	0.3	0.6	n.s.
New onset of AFib (%)	6.4	9.3	0.01
Pacemaker implantation (%)	23.7	9.9	<0.001
Dialysis (new onset) (%)			<0.001
temporary	2.9	6.7	
chronic	0.1	0.7	
postOP in-hospital stay (days; mean±SD)	11.5 ± 8.2	13.0 ± 9.2	<0.001
postOP ICU stay (days; mean±SD)	3.4 ± 5.0	4.7 ± 6.5	<0.001
1-year mortality (%)	20.7	28.0	<0.001



Mobility

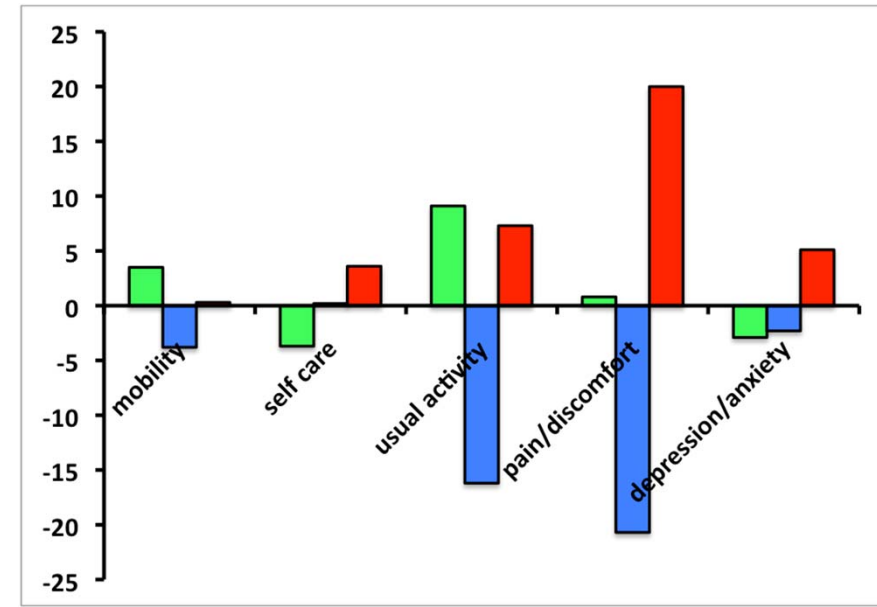
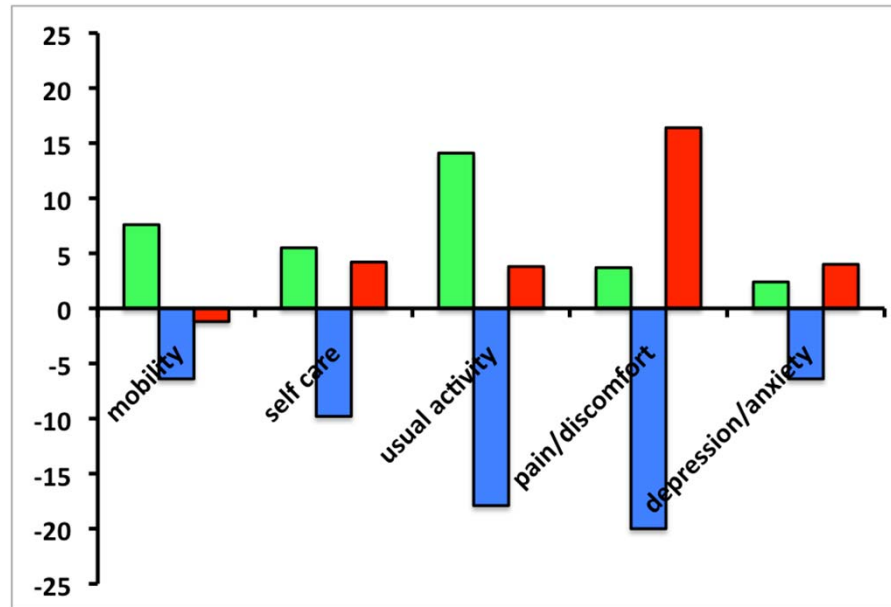


 no complains  mild complains  severe complains

TAVI-TV

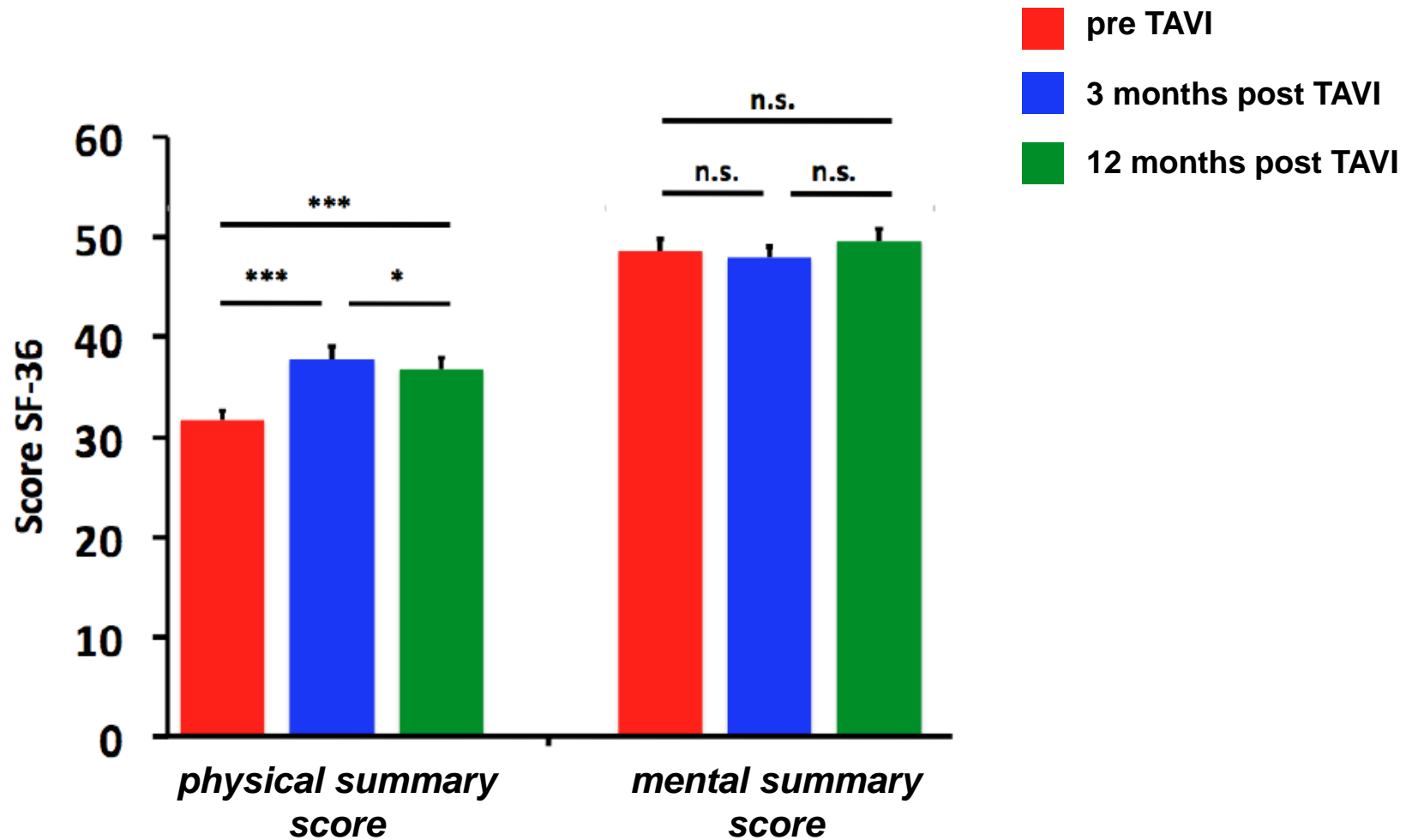
TAVI-TA

Difference pre-OP/1-year FU (%)



■ no complains
 ■ mild complains
 ■ severe complains

Results from The German Heart Center



- **GARY** provides a **large study population** with completed follow-up
- Treatment of aortic valve disease by TAVI leads to significant **improvement of QoL** shown by:
 - ➔ **improved VAS Scores** in both groups with higher values in TAVI-TV
 - ➔ **increased** patient numbers in the EQ-5D dimensions **mobility** and **usual activity** within Level I
- The dimensions **pain/discomfort** and **depression/anxiety** showed significant increases for patient numbers in the Level III reflecting a **worsening of QoL** in these dimensions
- The limited improvement of QoL after TAVI within mental score groups like **pain/discomfort** and **depression/anxiety** is a reported phenomenon in TAVI patients.

GARY

Thank you!

EACTS Advanced Course on the Mitral and Tricuspid Valves at the German Heart Center Munich

GERMAN HEART CENTER MUNICH

Course Directors

P Kappetein, Rotterdam & R Lange MD, Munich

Course Fee

Members: €550 inclusive of VAT at the applicable rate

Non-Members: €650 inclusive of VAT at the applicable rate

EUCOMED

The Advanced Course on the Mitral and Tricuspid Valve is compliant with the Eucomed Code of Ethical Business Practice

Course Overview

Provide in-depth training on mitral and tricuspid valve repair techniques;

Discuss need for interdisciplinary approach for intervention in functional and degenerative mitral valve disease;

Provide rationale for treatment of tricuspid valve disease;

Observe 4-6 live mitral and tricuspid repair cases

