

Quality of Life after TAVR

What do we know?

Why should you care?

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Disclosures

Grant Support/Drugs

- Daiichi-Sankyo
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- Merck

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- Medtronic
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- Boston Scientific
- CSI

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- Medtronic
- Edwards Lifesciences

QOL after TAVR- Why Should We Care?

Inoperable Patients

- PARTNER B demonstrated substantial and sustained survival benefit compared with standard care
- However, given the advanced age and multiple comorbidities present in the inoperable patients, improved QOL may be an even more important goal of therapy
- In the absence of improved QOL, it is questionable whether many inoperable patients would want to live longer

QOL after TAVR- Why Should We Care?

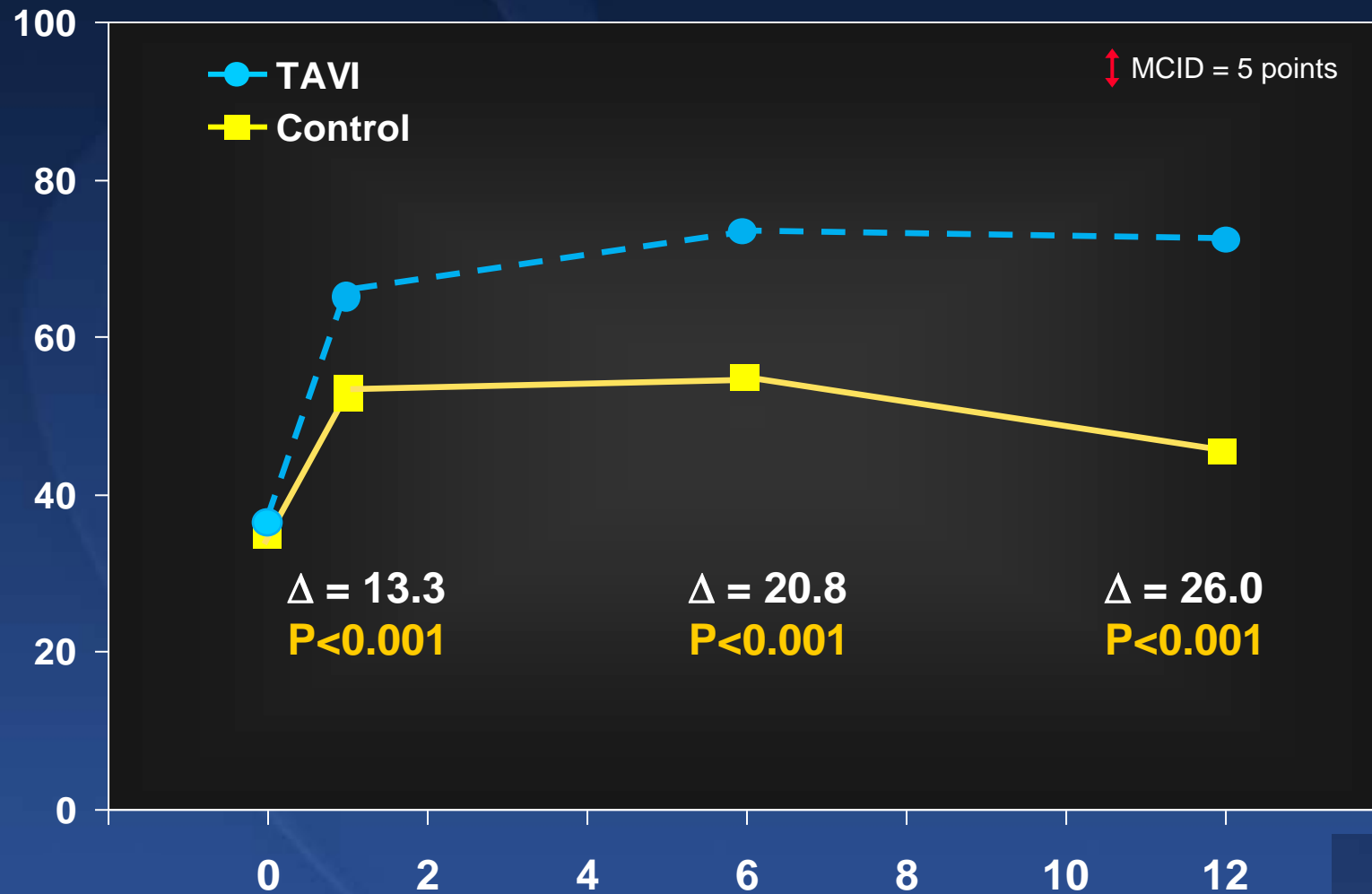
Intermediate and High-Risk Surgical Candidates

- No significant survival benefit of TAVR compared with AVR in most studies and some complications may even be increased
 - *Vascular complications, paravalvular AI*
- Therefore, evidence of improved QOL in either the short or long-term is critical to demonstrating the value of TAVR

TAVR: QOL Insights

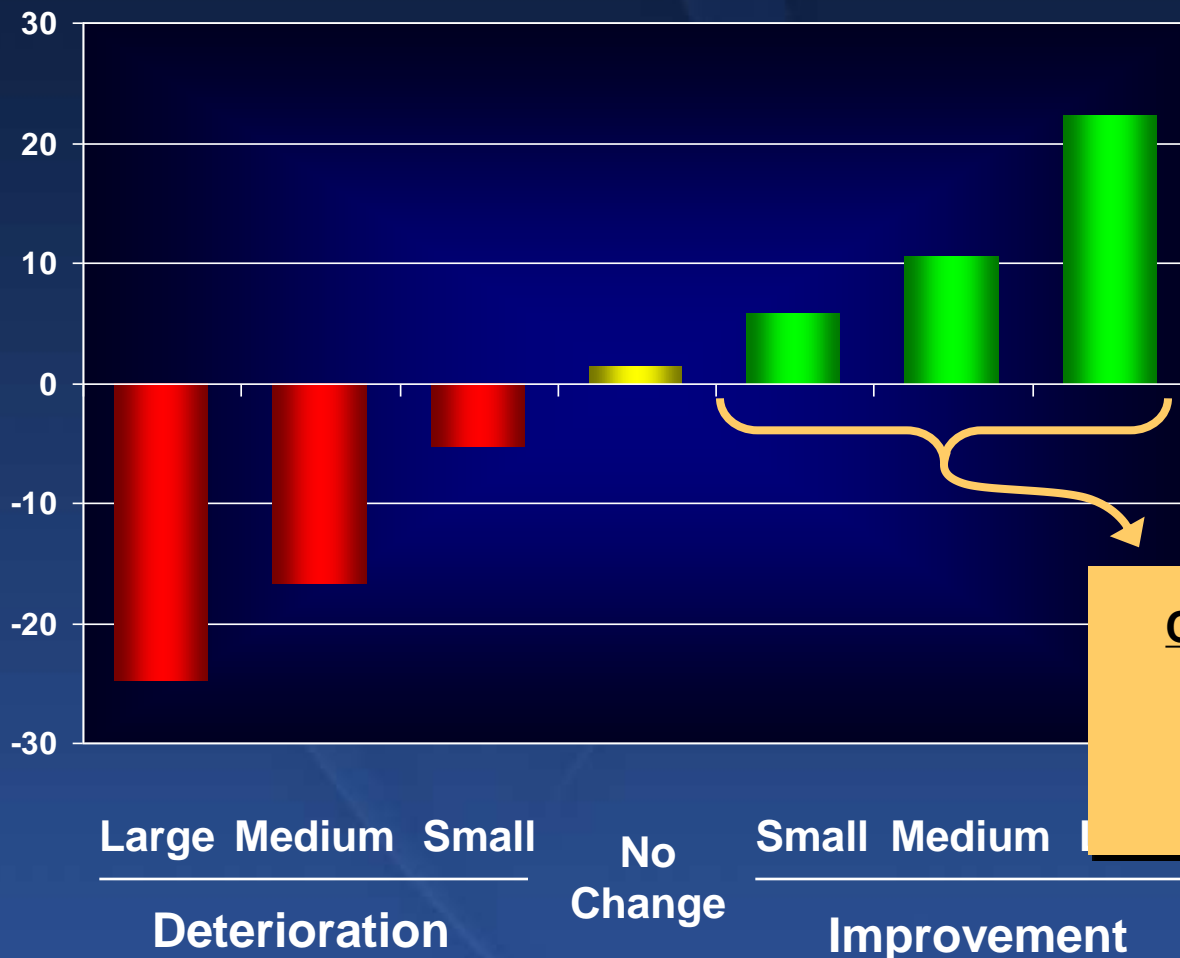
Quality of life improves substantially after TAVR, even among inoperable patients

Primary Endpoint: KCCQ Overall Summary



KCCQ: Interpretation

Change in KCCQ-Overall Summary Score

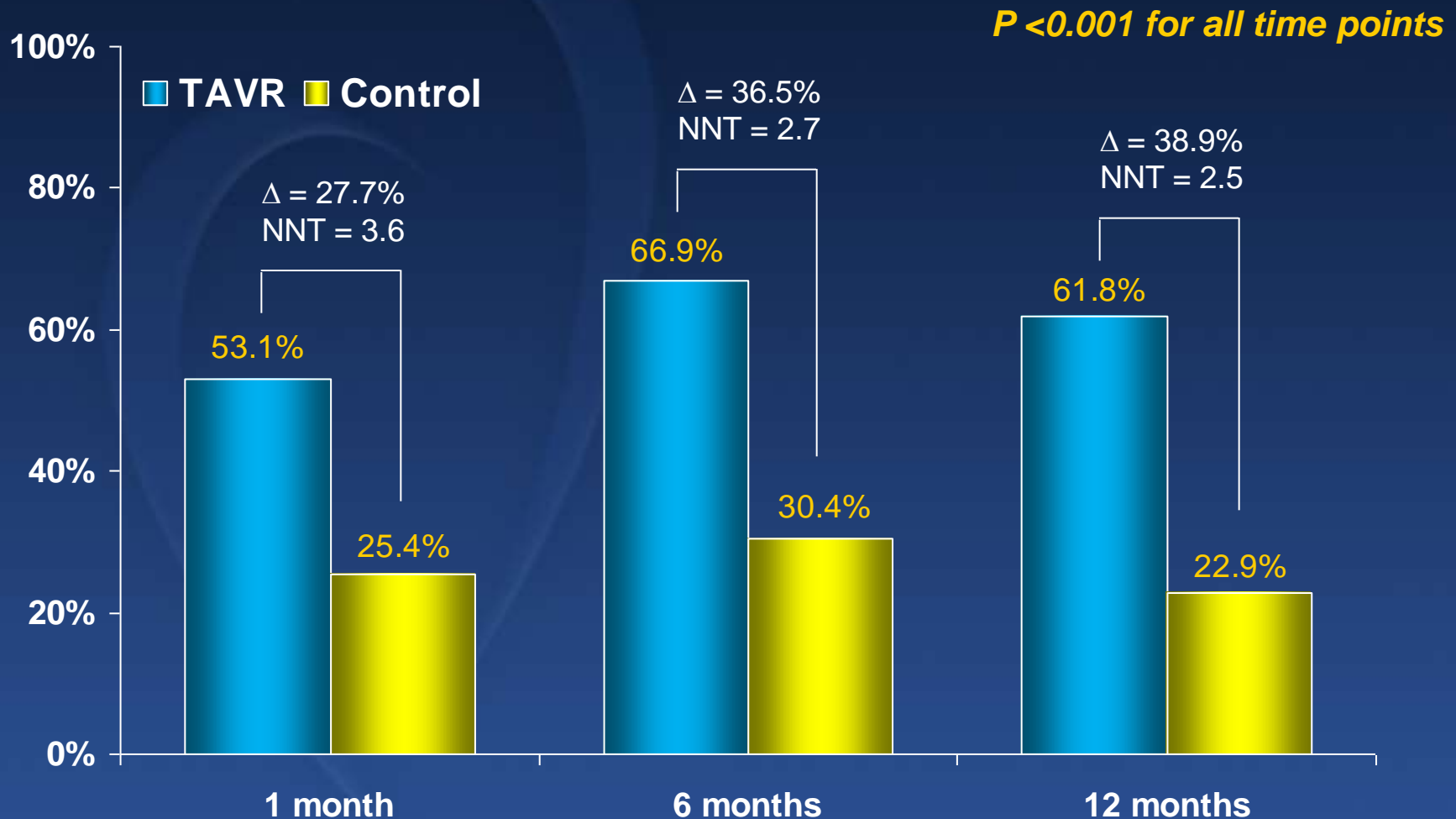


- 546 outpts with HF
- KCCQ assessed at baseline and 5 weeks
- Extent of deterioration or improvement assessed by physician based on sx and exam and correlated with KCCQ Overall

Clinically Important Change

- Small = 5 points
- Moderate = 10 points
- Large = 20 points

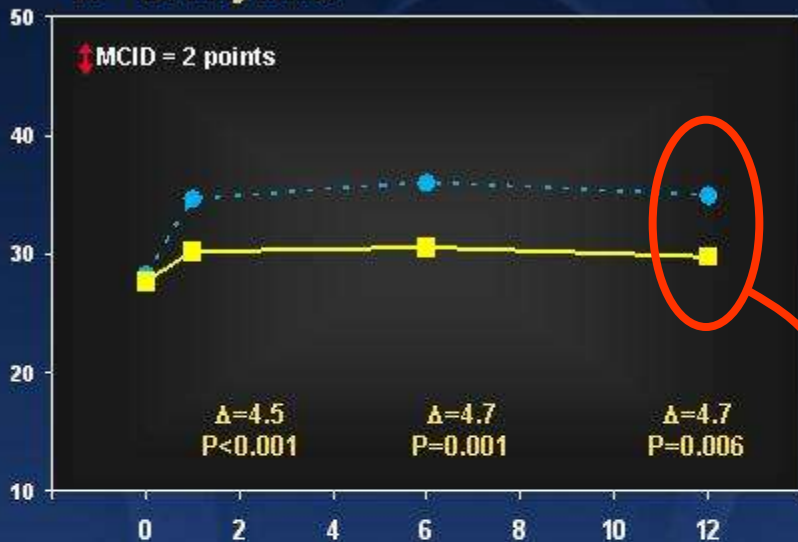
KCCQ-Summary: Substantial Improvement *



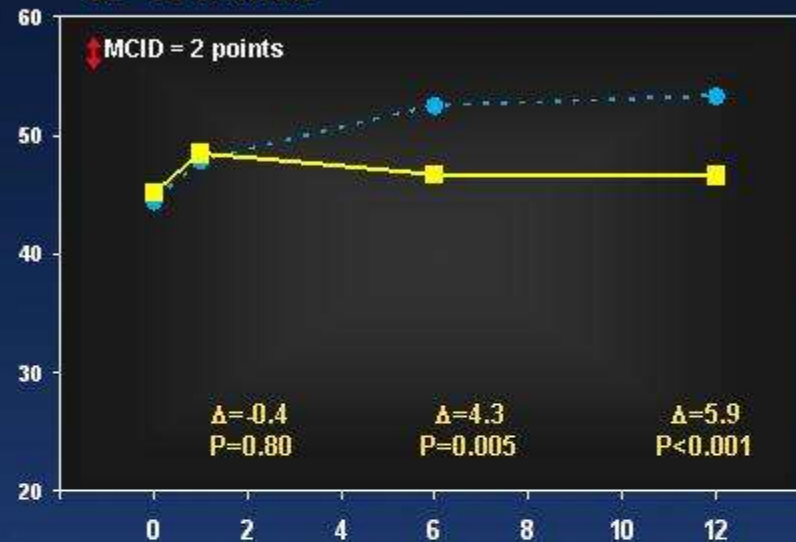
* Improvement \geq 20 points vs. baseline among patients with available QOL data

Generic QOL and Utilities

SF-12 Physical



SF-12 Mental



EQ-5D Utilities



**5 point difference
comparable to
10-year age
difference**

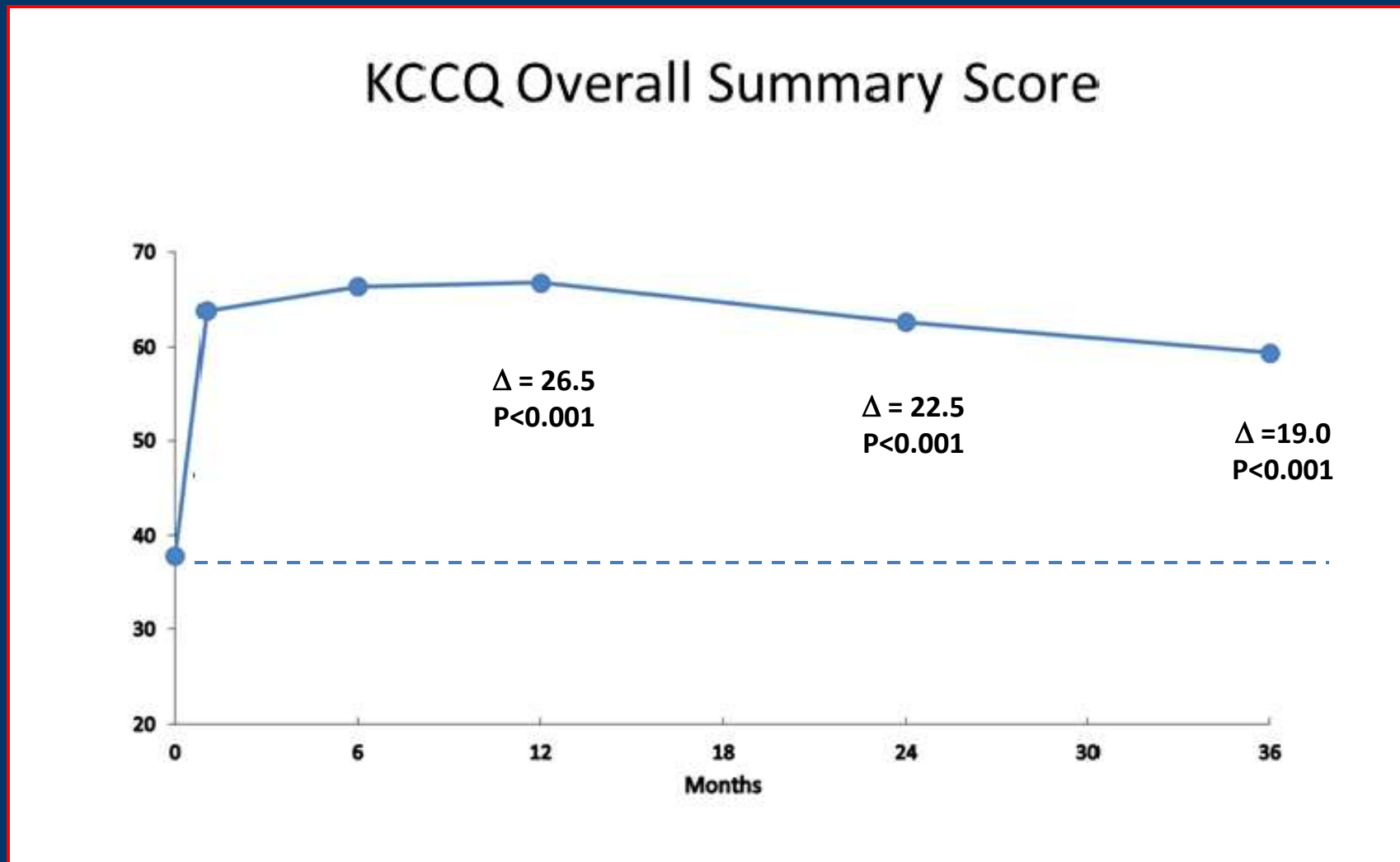
Reynolds MR, et al. *Circulation* 2011;124:1964-72

TAVR: QOL Insights

Quality of life benefits of TAVR are durable among surviving patients

CoreValve Extreme Risk: 3 Year QOL

KCCQ Overall Summary



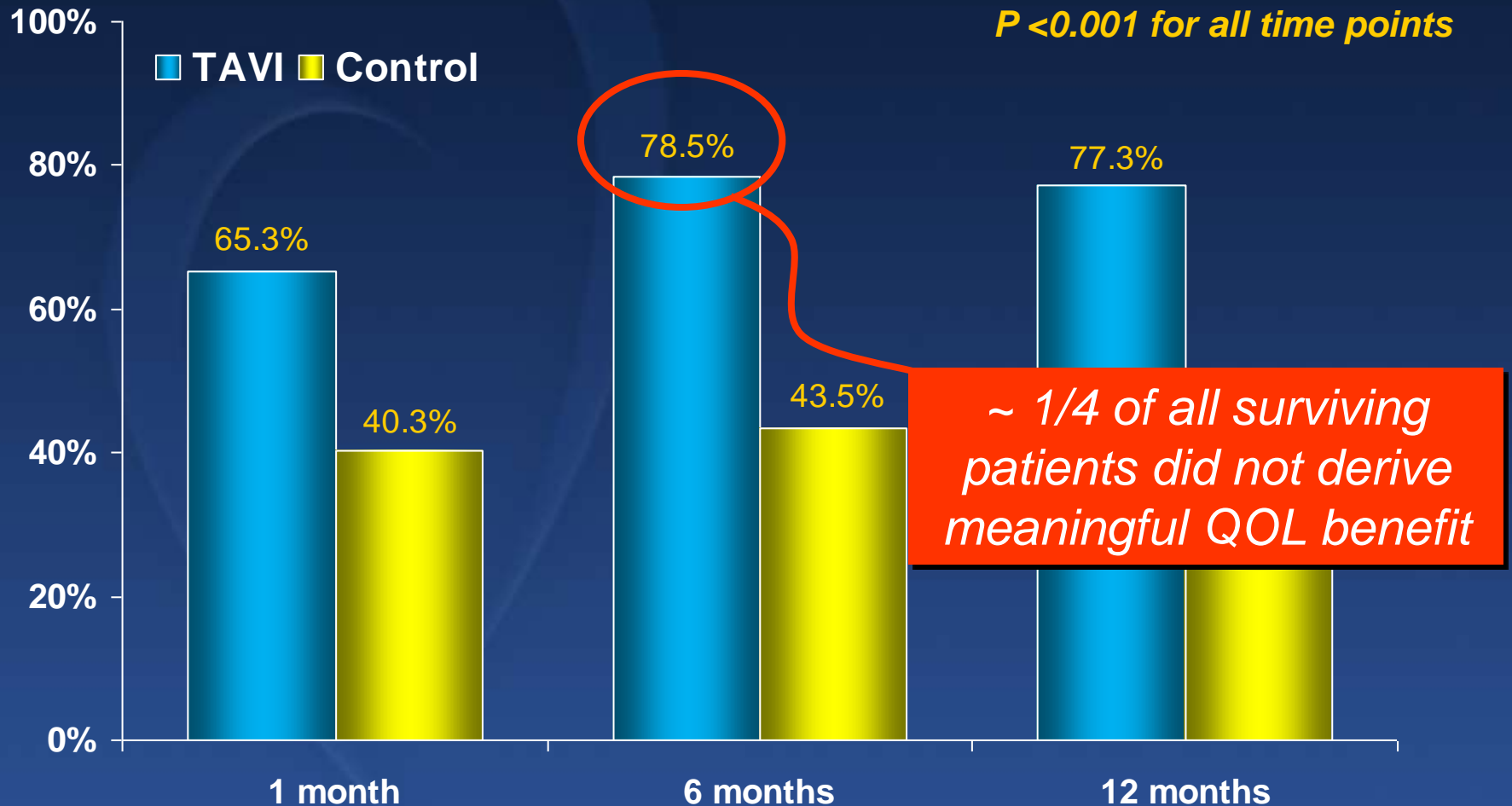
* Iliofemoral Access

Baron SJ, et al. AHJ 2017 (in press)

TAVR: Key QOL Insights

Although QOL improves substantially after TAVR, on an individual level there is still considerable heterogeneity of benefit

KCCQ-Summary: Significant Improvement *



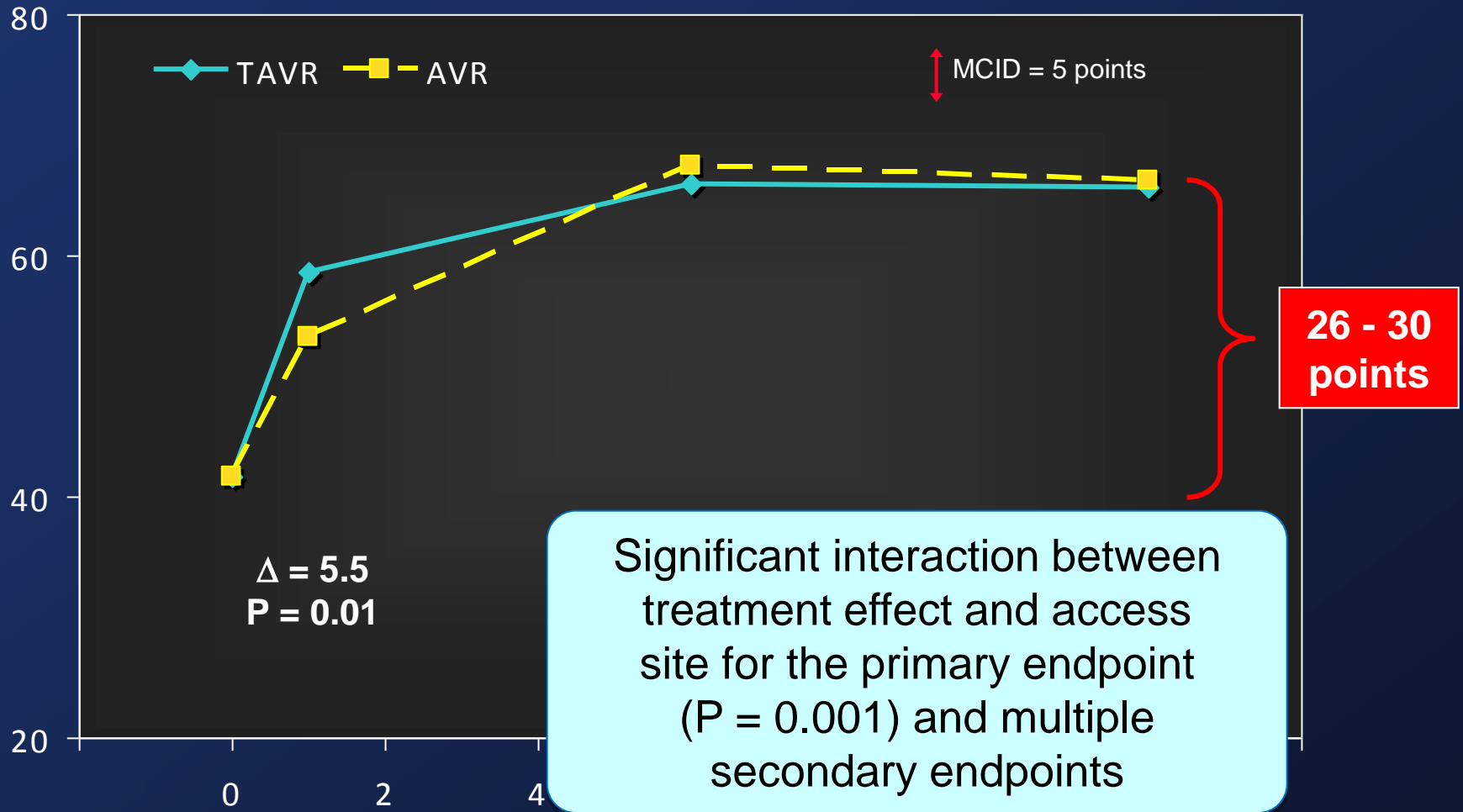
* Improvement \geq 10 points vs. baseline among patients with available QOL data

TAVR: Key QOL Insights

*“Less invasive” procedures don’t always
result in better quality of life*

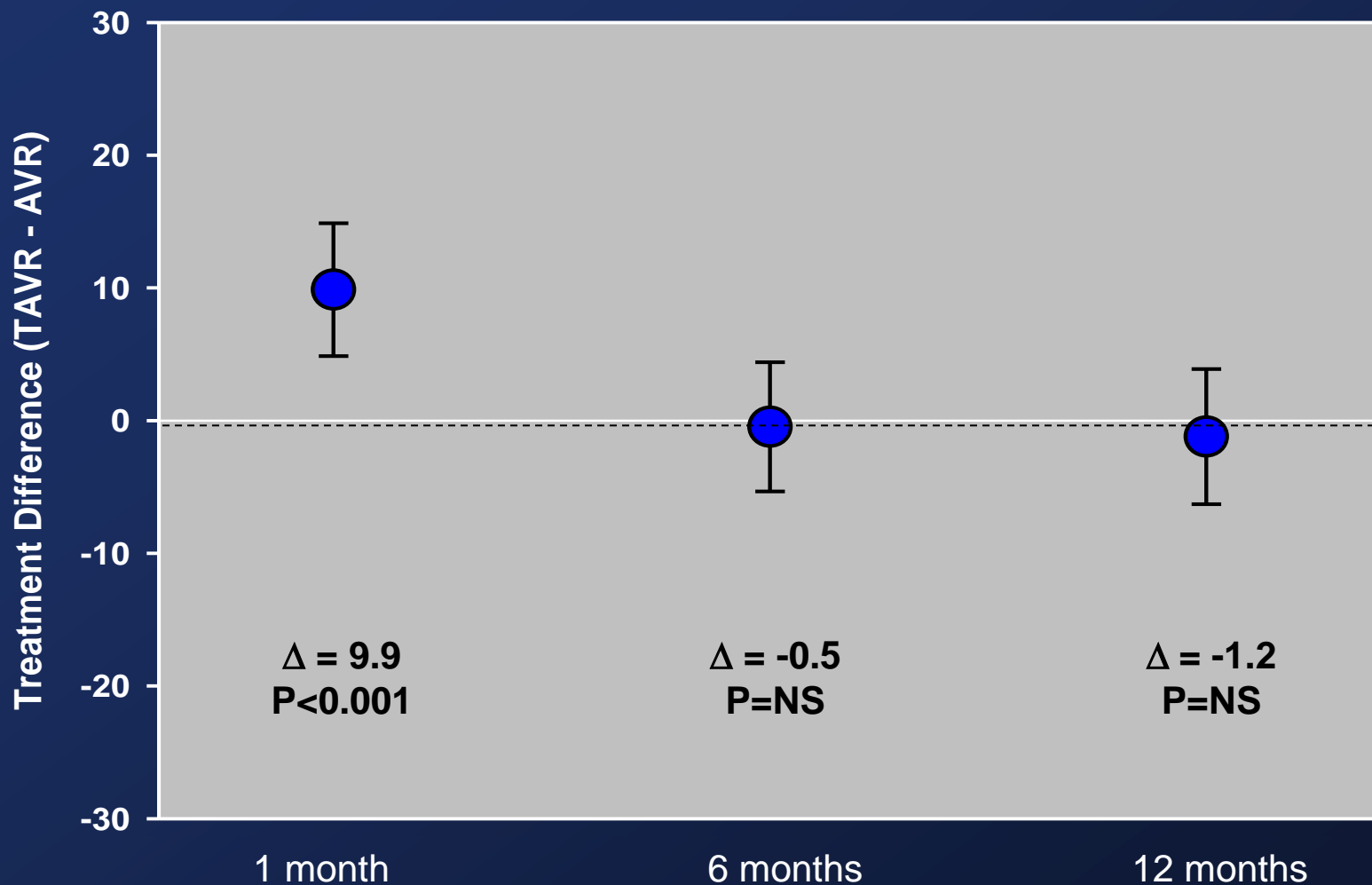
PARTNER A

KCCQ Overall Summary



KCCQ Overall Summary

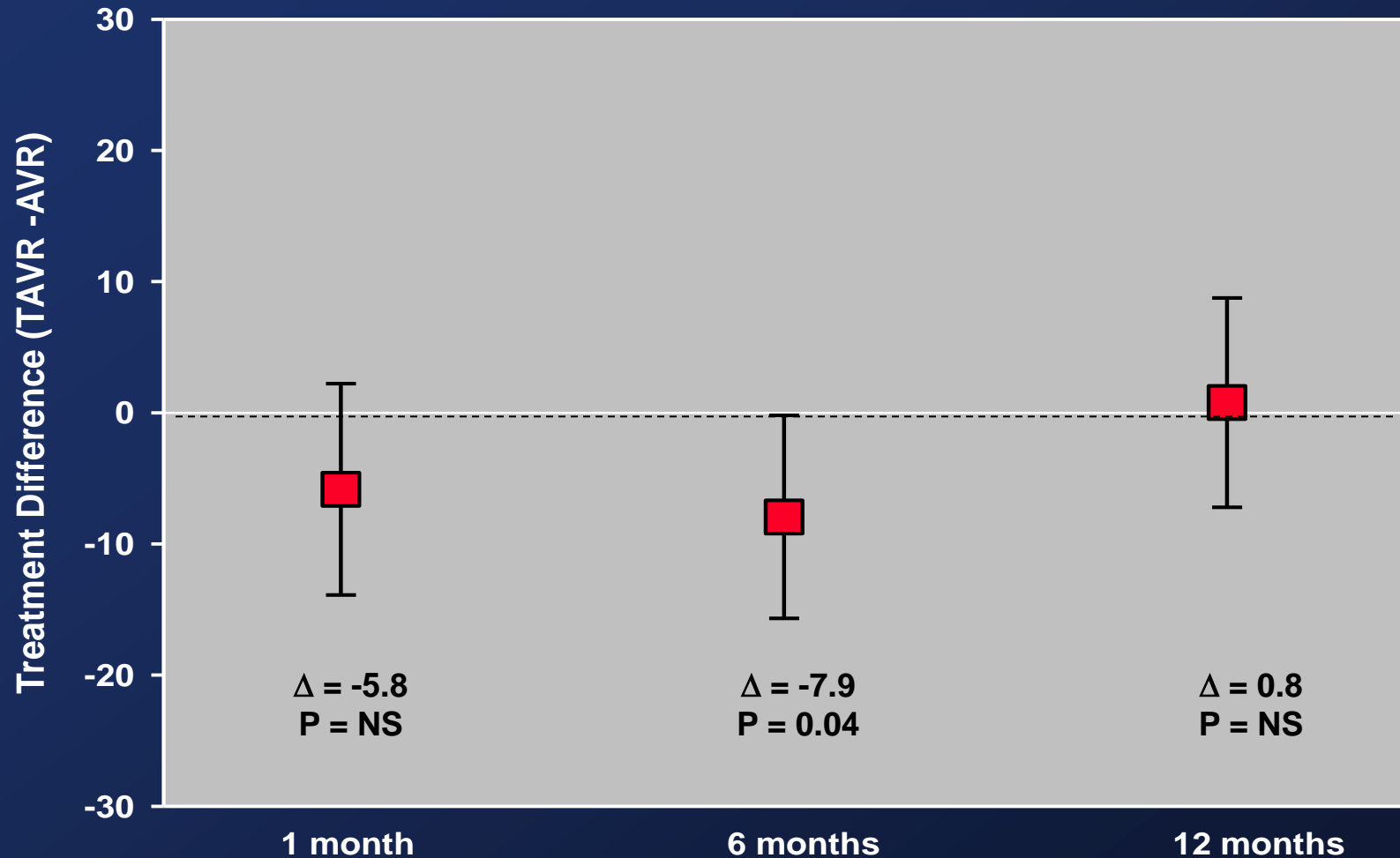
TF Subgroup



P-values are for mean treatment effect of TAVR vs. AVR

KCCQ Overall Summary

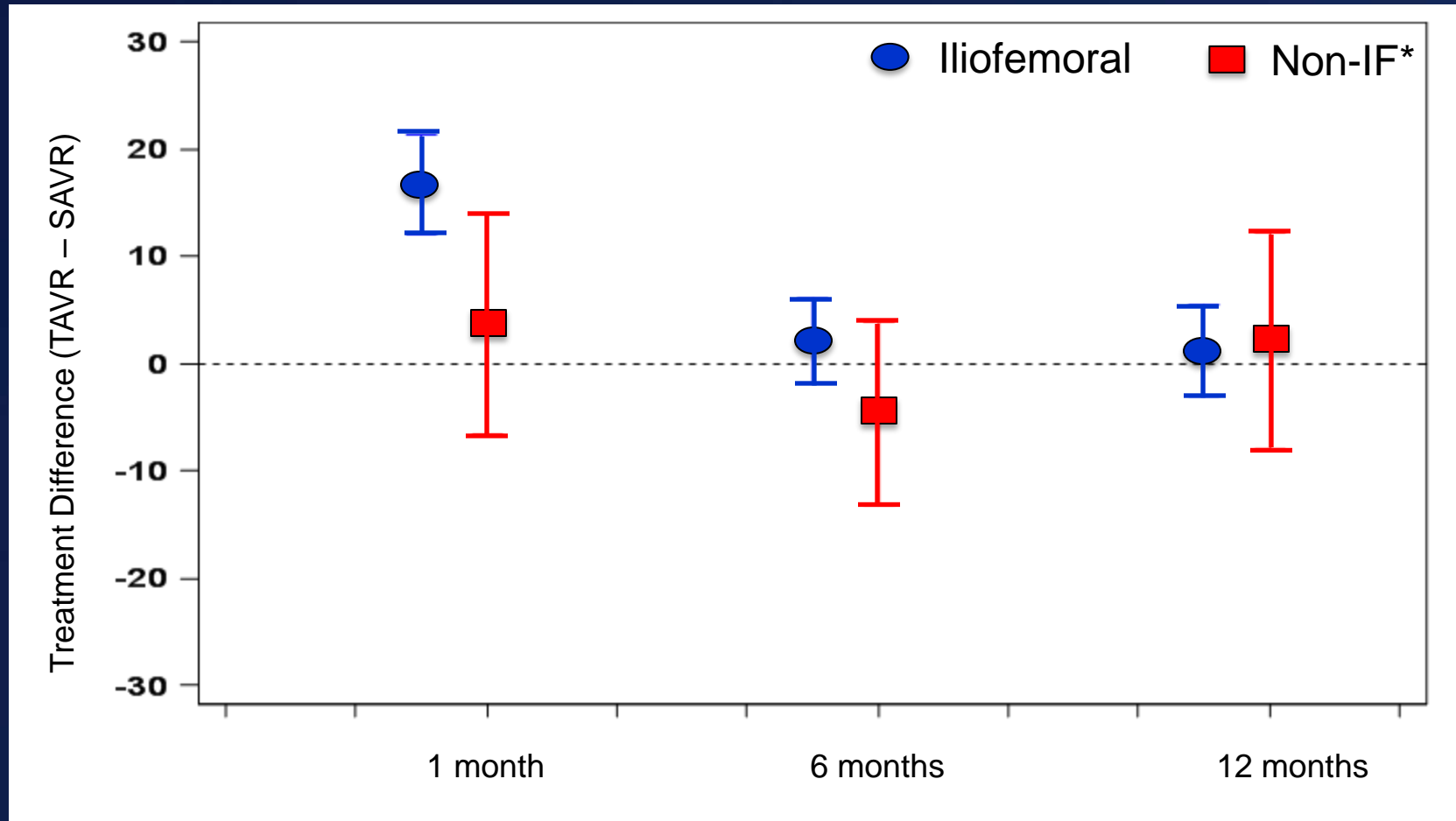
TA Subgroup



P-values are for mean treatment effect of TAVR vs. AVR

CoreValve High Risk

Benefit of TAVR over SAVR by Access Site



* Non-IF = TAO or Subclavian

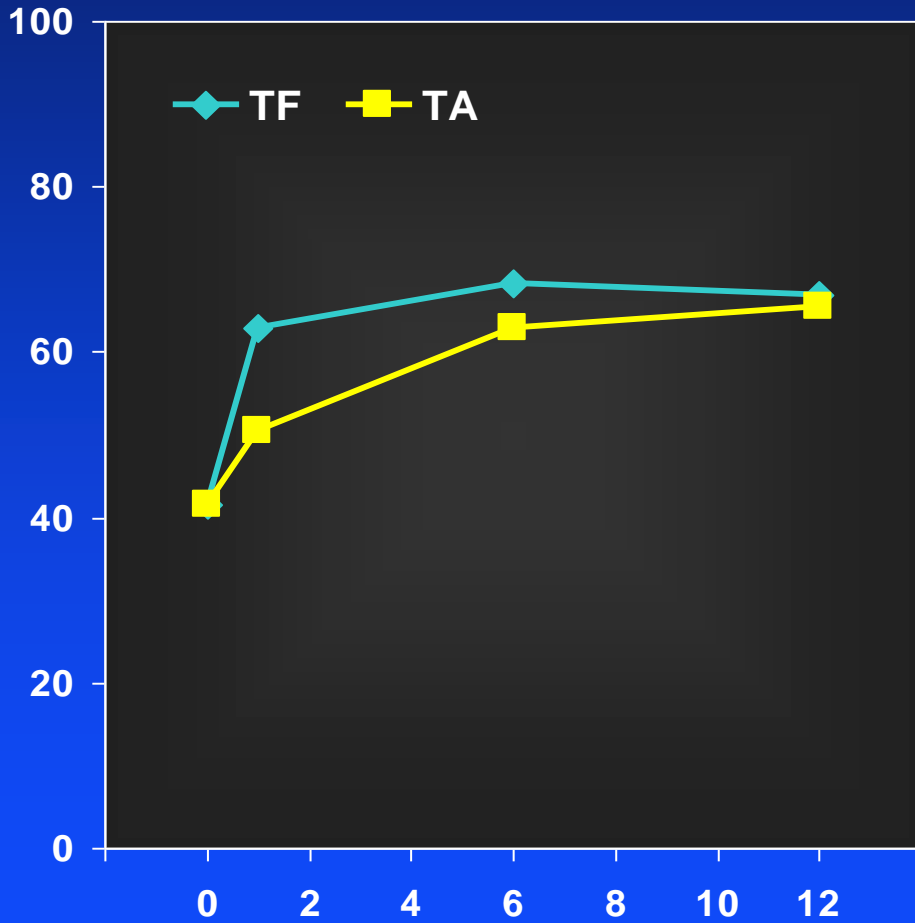
Differential QOL Outcomes with Femoral vs. Alternative Access: *Potential Mechanisms*

- Non-IF patients are different-- the best TAVR candidates were selected for a TF approach
- Inexperienced operators/Learning curve
 - *Improved results seen for other outcomes in continued access TA cohort → ? QOL Impact*
- Less invasive isn't necessarily less painful
 - *Thoracic surgery experience suggests that median sternotomy is generally less painful than other forms of thoractomy*

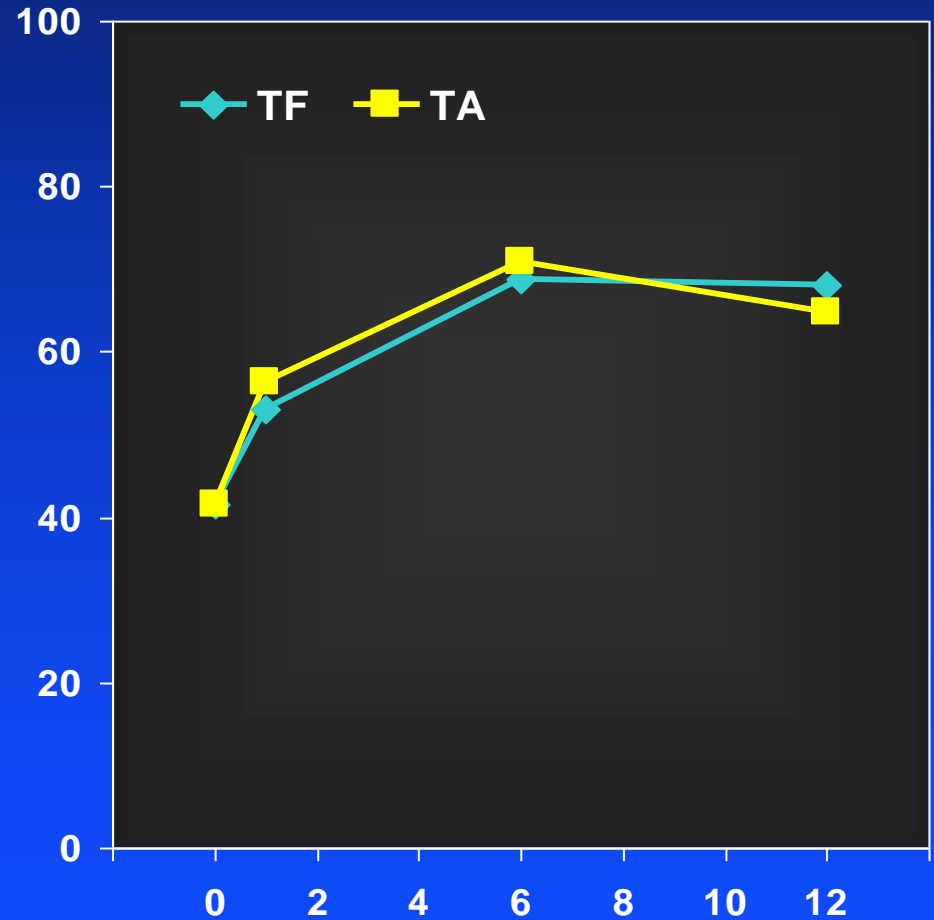
TF vs. TA: Indirect Comparison

KCCQ Summary Scale

TAVR



Surgical AVR



Differential QOL Outcomes with Femoral vs. Alternative Access: *Potential Mechanisms*

- Non-IF patients are different-- the best TAVR candidates were selected for a TF approach
- Inexperienced operators/Learning curve
 - *Seems unlikely since similar results were observed in PARTNER 2A as well*
- Less invasive isn't necessarily less painful
 - *Thoracic surgery experience suggests that median sternotomy is generally less painful than other forms of thoractomy*

Differential QOL Outcomes with Femoral vs. Alternative Access: *Potential Mechanisms*

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Summary

- For extreme risk/inoperable patients with severe AS, TAVR provides substantial and sustained QOL benefits compared with medical therapy alone
- For both high risk and intermediate risk patients, transfemoral (but not transthoracic) TAVR provides an early QOL benefit compared with SAVR and similar late QOL
- Further studies are necessary to...
 - *Understand the long-term (5-10 year) durability of QOL benefit of TAVR vs. SAVR*
 - *Identify patients who will not benefit from TAVR*

