

# Quality of Life after TAVR

*What do we know?*

*Why should you care?*

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# Disclosures

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## Grant Support/Drugs

- Daiichi-Sankyo
- Astra-Zeneca
- Eli Lilly
- Merck

## Grant Support/Devices

- Edwards Lifesciences
- Abbott Vascular
- Medtronic
- Boston Scientific
- Biomet
- CSI

## Consulting/Advisory Boards

- Medtronic
- Edwards Lifesciences

# QOL after TAVR- Why Should We Care?

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## *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?

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## ***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

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

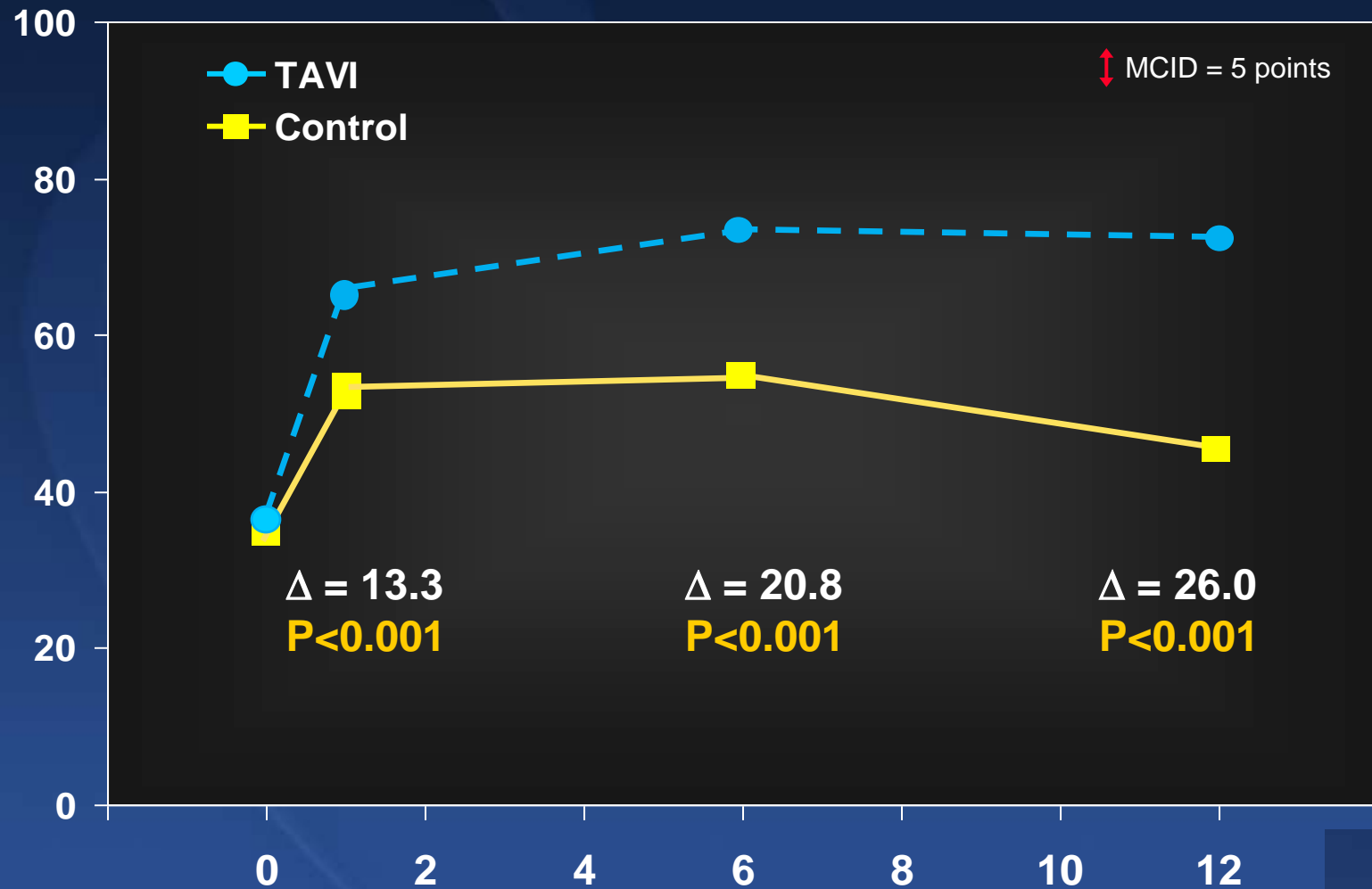
# KCCQ: Interpretation

Change in KCCQ-Overall Summary Score



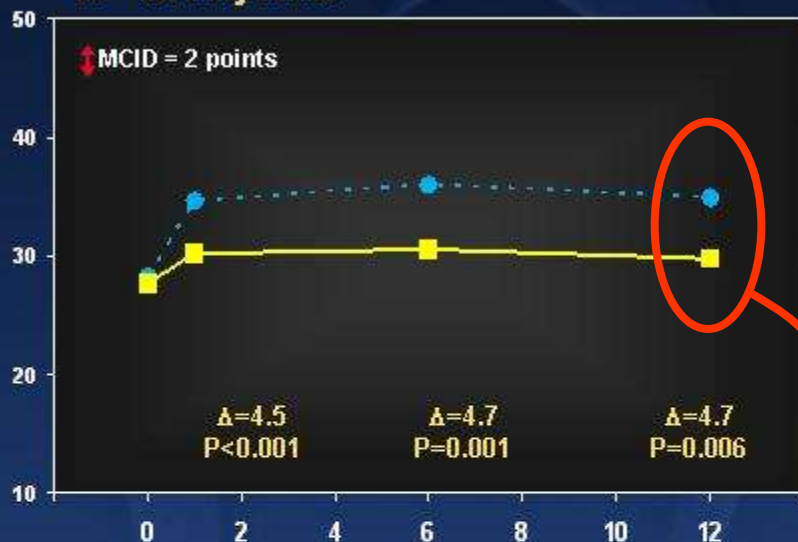
- 546 outpts with HF
- KCCQ assessed at baseline and 5 weeks
- Extent of deterioration or improvement assessed by physician based on sx and exam and correlated with KCCQ Overall

# Primary Endpoint: KCCQ Overall Summary

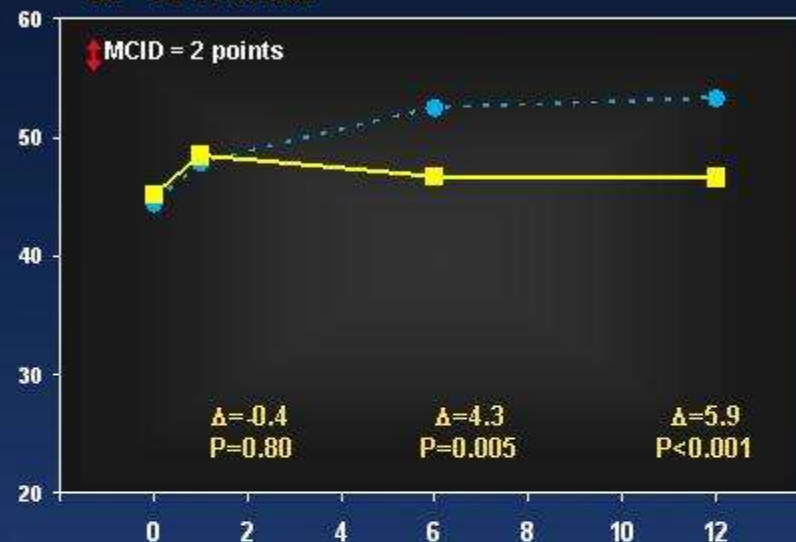


# Generic QOL and Utilities

## 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

MCID = minimum clinically important difference



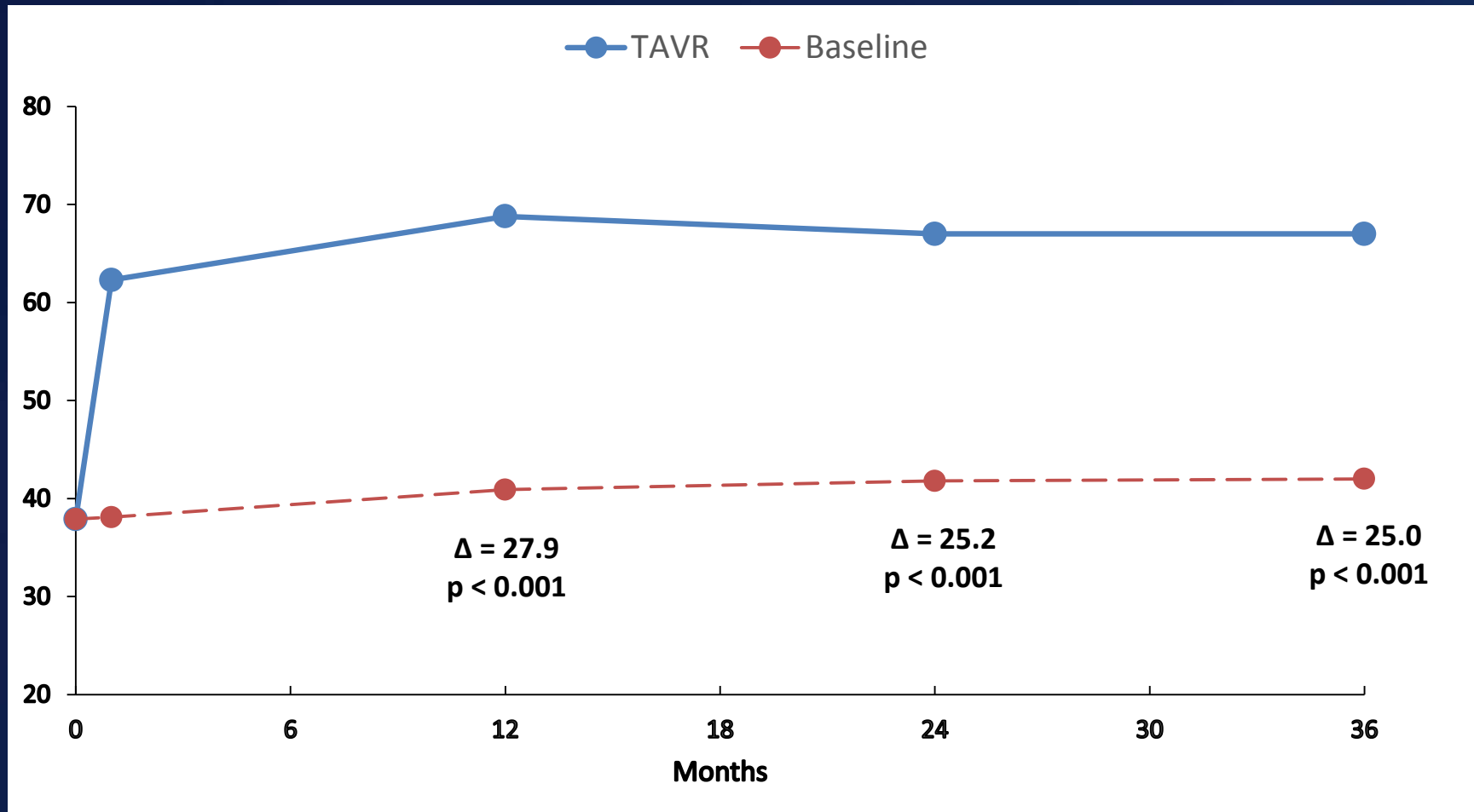
# TAVR: QOL Insights

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*Quality of life benefits of TAVR are durable among surviving patients*

# CoreValve Extreme Risk: 3 Year QOL

## KCCQ Overall Summary



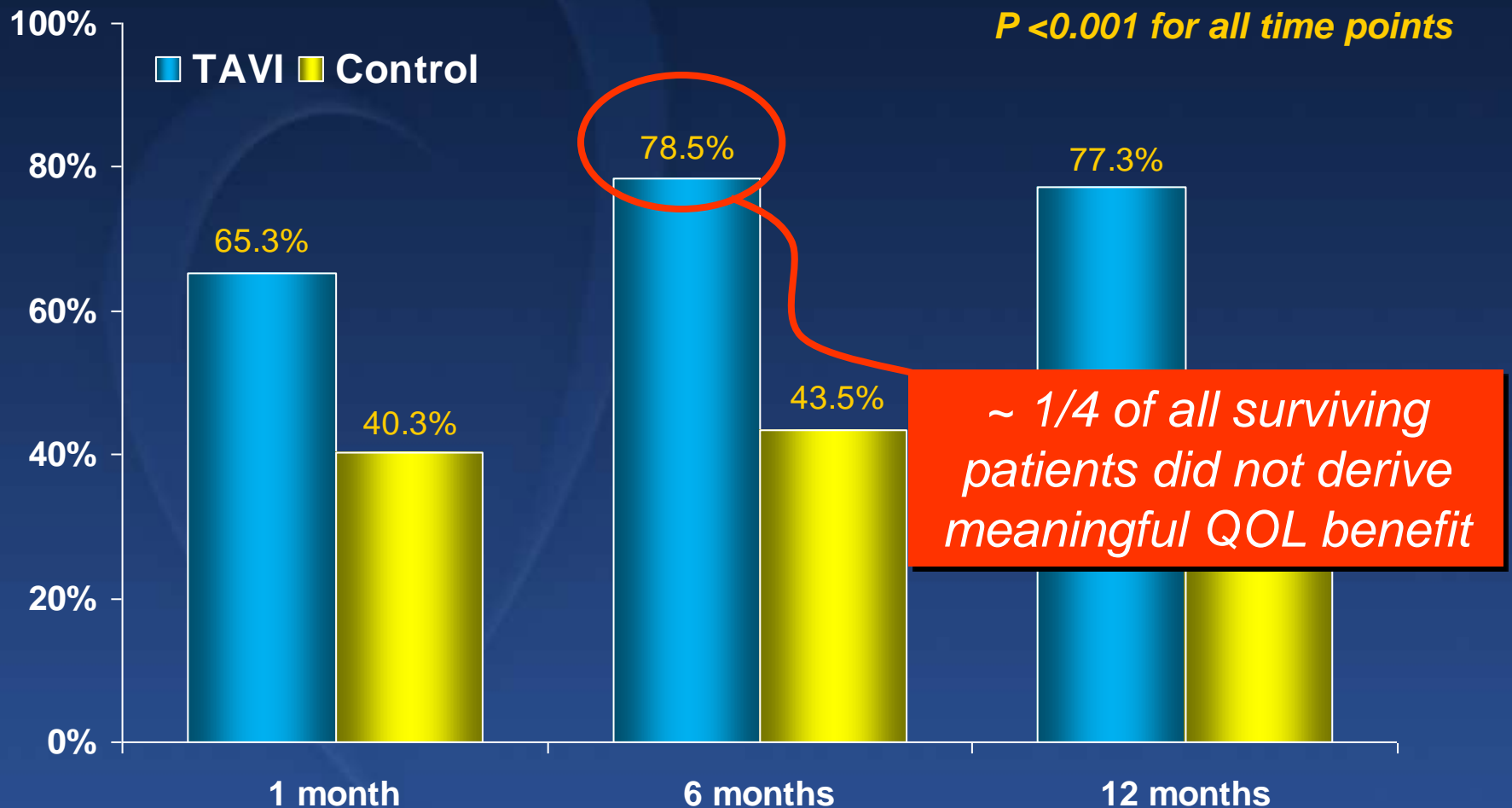
\* Iliofemoral Access

# TAVR: Key QOL Insights

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*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

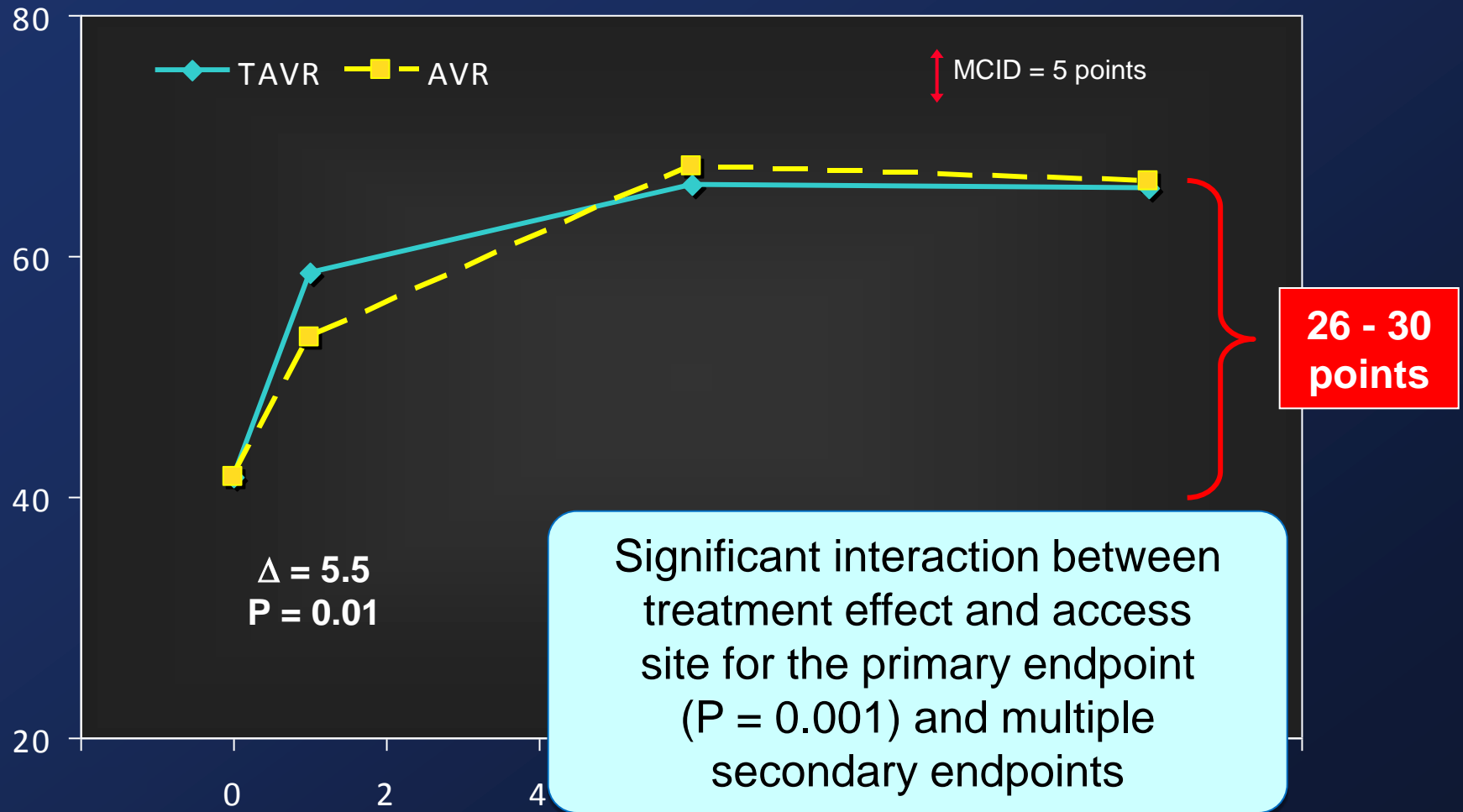
# TAVR: Key QOL Insights

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

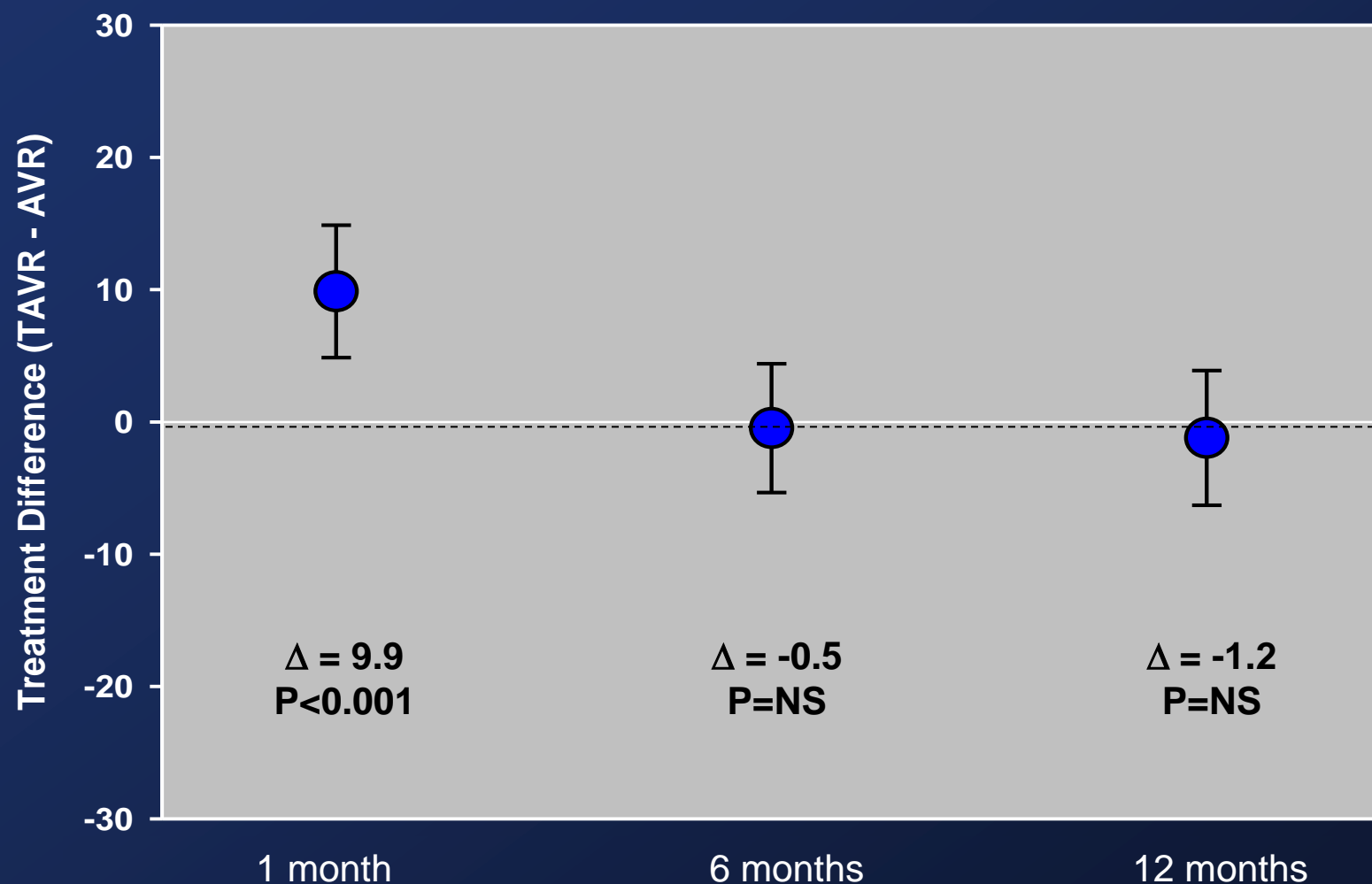
# PARTNER A

## KCCQ Overall Summary



# KCCQ Overall Summary

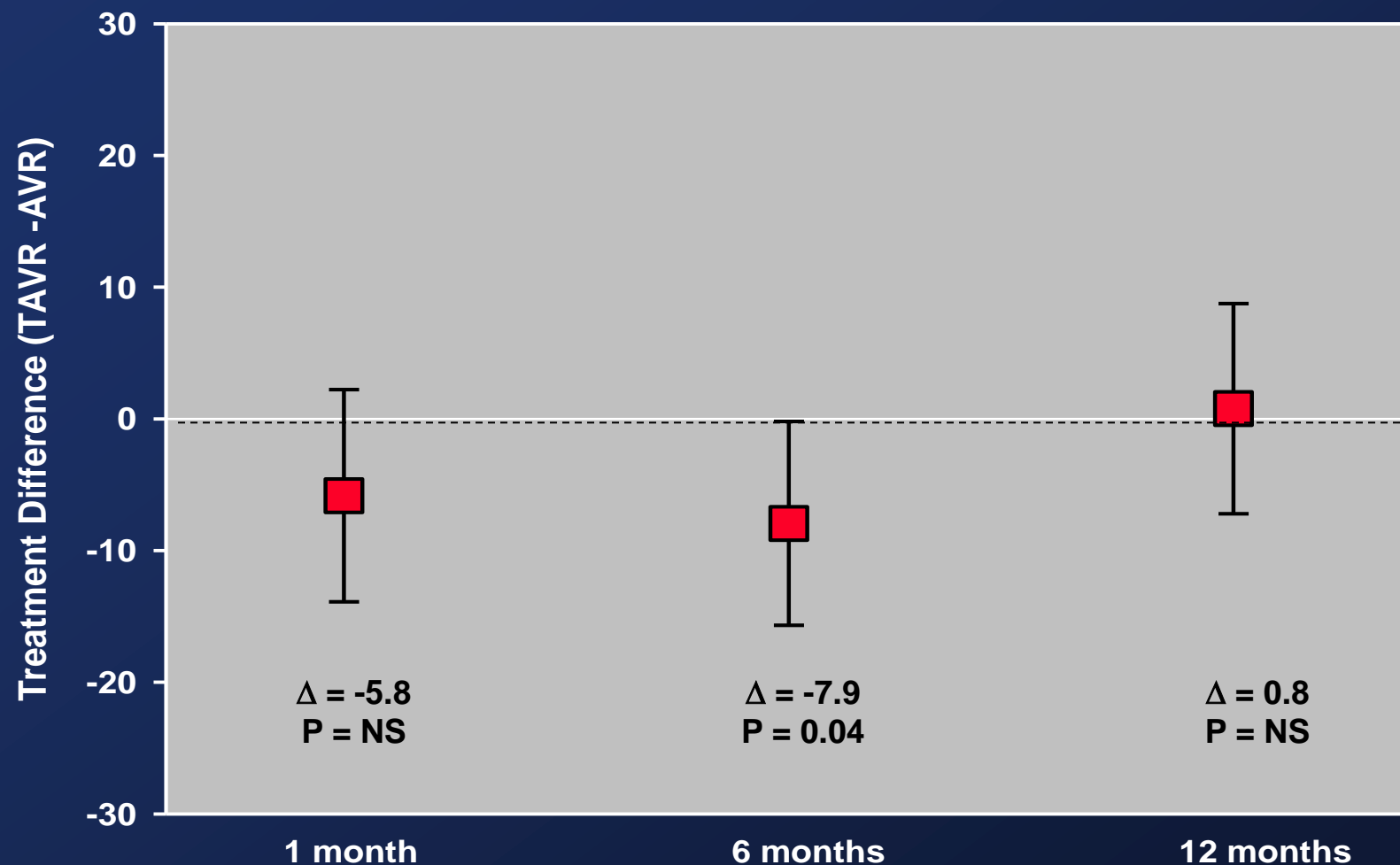
## TF Subgroup



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

# KCCQ Overall Summary

## TA Subgroup

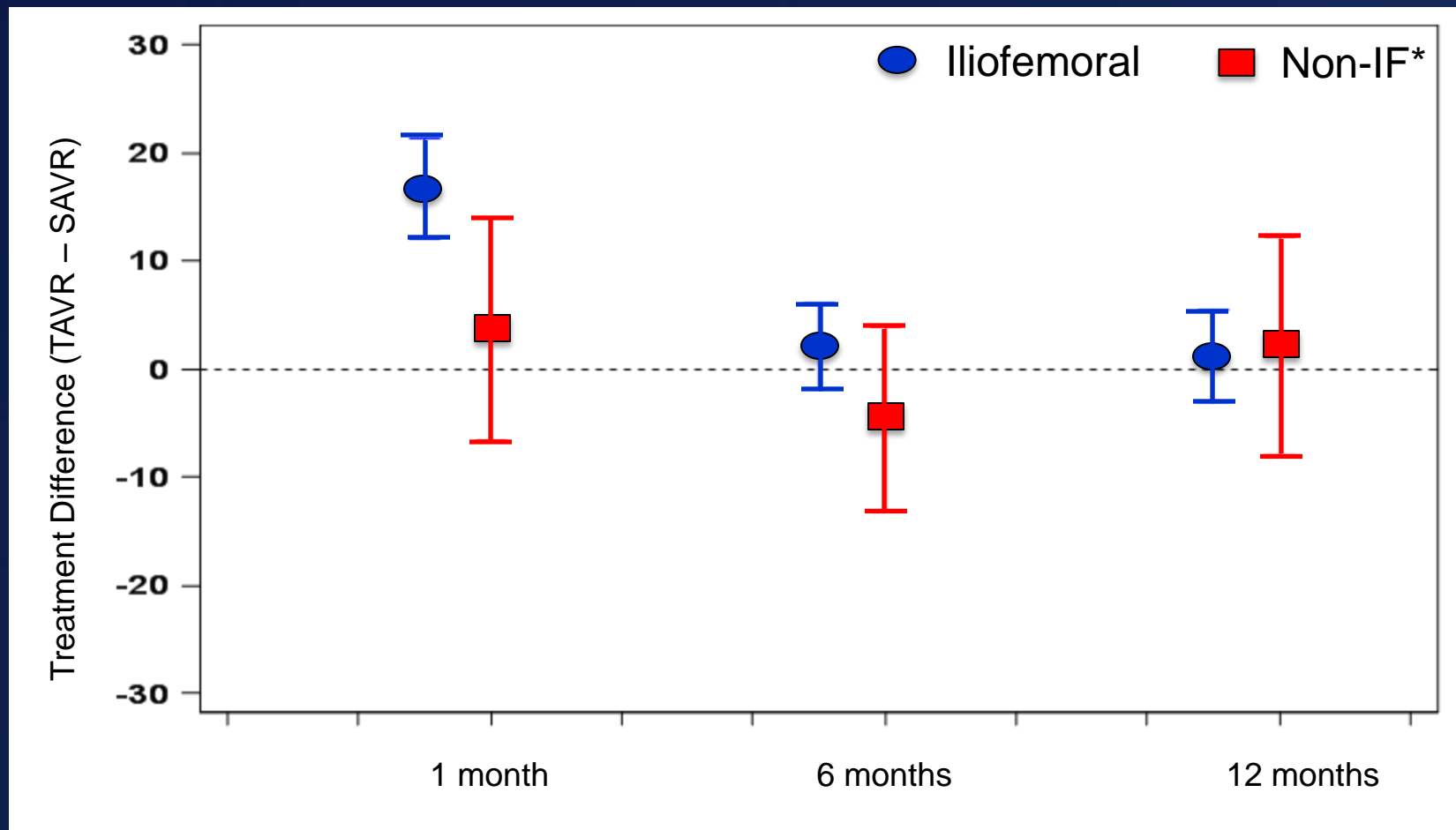


P-values are for mean treatment effect of TAVR vs. AVR



# 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*

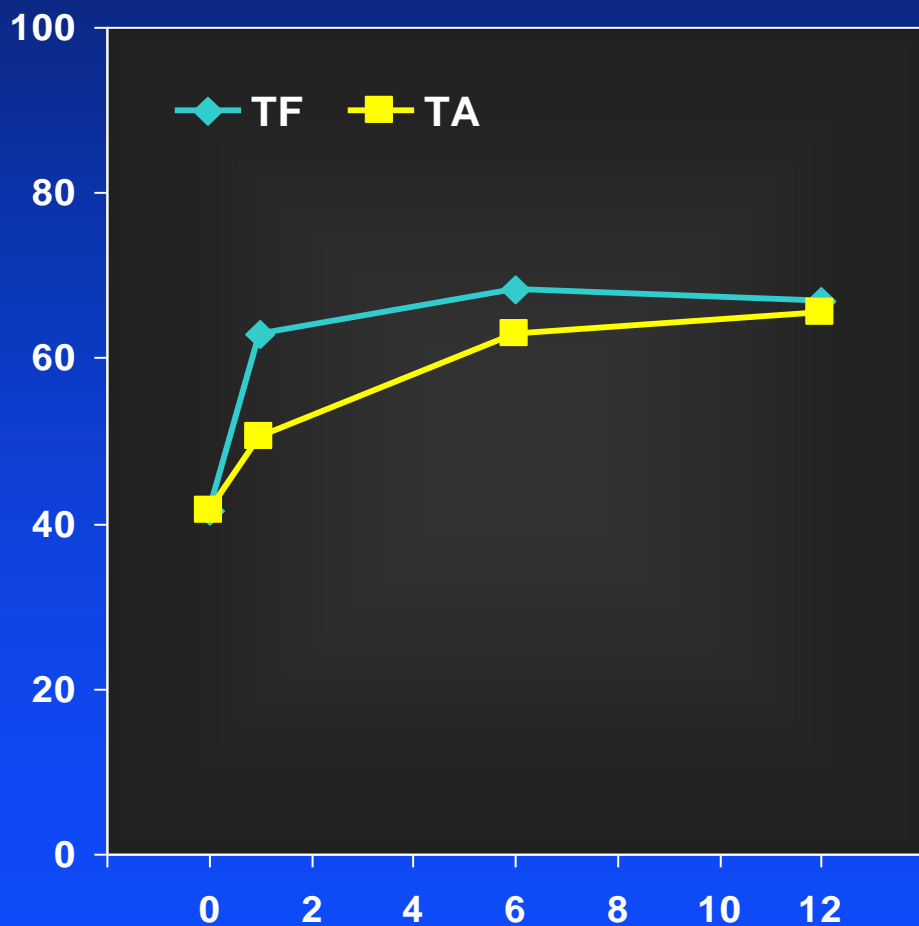
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- Non-IF patients are different-- the best TAVR candidates were selected for a TF approach
- Inexperienced operators/Learning curve
  - *Improved results seen for other outcomes in continued access TA cohort → ? QOL Impact*
- Less invasive isn't necessarily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

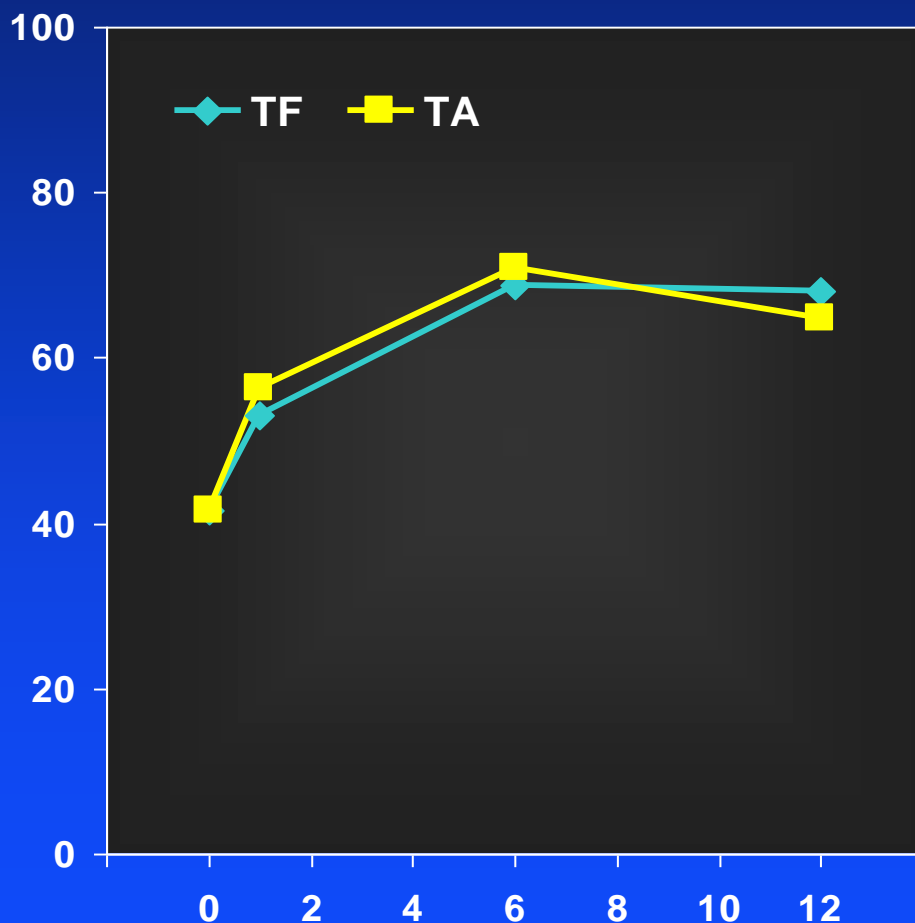
# TF vs. TA: Indirect Comparison

## KCCQ Summary Scale

TAVR



Surgical AVR



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

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- 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

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- 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*