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# Forgotten Joint Score : Role in Identifying Patients Unlikely To Improve Following Total Knee Arthroplasty

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# Disclosures

Adit R. Maniar	None
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Ishan Khanna	None
Pranav Shere	None
Anish Nandkumar Tawde	None
Muhammed Naqvi	None



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# Background



- **Historically, approximately 20% of patients report dissatisfaction following primary total knee arthroplasty (TKA). [1]**
- **A recent review shows dissatisfaction rates have been reduced to 10%. [2]**
- **To improve dissatisfaction rates, the first step is to identify patients who are more likely to be unhappy after the surgery. This will allow us to target interventions and improve outcomes of TKA in these patients.**
- **Preoperative Patient Reported Outcome Measures (PROMs) can predict Post TKA Satisfaction. [3-5]**

# Background



## Forgotten Joint Score (FJS)

**Forgotten Joint Score is a 12 – item questionnaire, focusing on patients awareness of the knee in everyday life.**

Forgotten Joint Score has been validated in different populations and has shown very low ceiling and floor effects allowing it to differentiate between the good and very good while also giving information different from the traditional PROMS. [6,7]

### INSTRUCTIONS:

*The following 12 questions refer to how aware you are of your artificial knee joint in everyday life.*

*Please tick (✓) one answer from each question.*

Are you aware of your artificial joint...	Never	Almost Never	Seldom	Sometimes	Mostly
1 ...in bed at night?					
2 ...when you are sitting on a chair for more than 1 hour?					
3 ...when you are walking for more than 15 minutes?					
4 ...when you are taking a bath/shower?					
5 ...when you are traveling in a car?					
6 ... when you are climbing stairs?					
7 ... when you are walking on uneven ground?					
8 ... when you are standing up from a low-sitting position?					
9 ... when you are standing for long periods of time?					
10 ...when you are doing housework or gardening?					
11 ...when you are taking a walk/hiking?					
12 ...when you are doing your favorite sport?					

# Aim

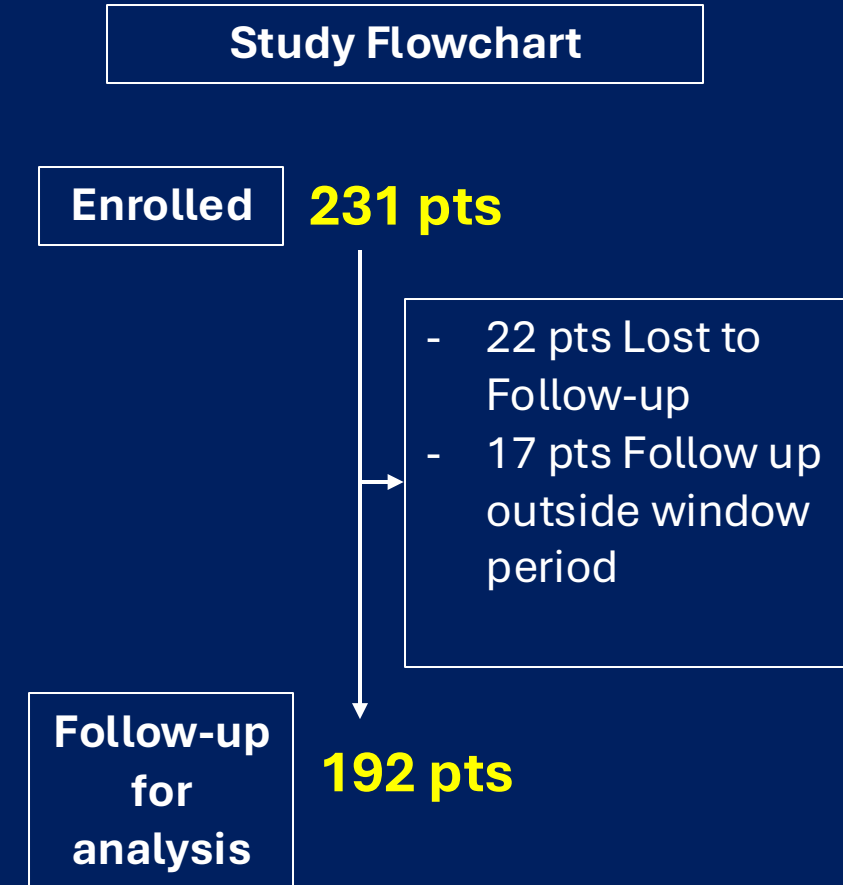


To study the role of Pre-TKA Forgotten Joint Score (FJS)  
in identifying patients who will not improve post TKA.

# Methods



- Retrospective Review of prospectively collected data
- All patients undergoing primary unilateral TKA by a single surgeon.
- Included all primary TKA between July 2022 and June 2023 having 1 year ( $\pm 1$  month) follow up
- All received a posterior stabilised cemented TKA with patella resurfacing
- Clinical Outcomes Measured by FJS and New Knee Society Score (NKSS)
- Statistical Analysis
  1. Spearman Correlation Coefficient
  2. Receiver Operating Curve (ROC) Analysis



# Methods



## Minimally Important Change (MIC)

Smallest increase in a PROM that the patient will recognise as an improvement [8]

MIC  
for FJS  
at 1 year post TKA  
**14 points**



We defined NO IMPROVEMENT =  
Increase in FJS < MIC (14 points)

# Results



**26 (13.5%)**

showed **no improvement**

i.e., Increase in FJS < 14 points

Correlation coefficient between

**Pre-TKA FJS and No improvement:**

**$r = 0.52$  ( $p=0.001$ )**

N	192 TKA
Mean Age	68.7
% Women	82.8 %
Mean BMI	30.5

# Results



ROC Analysis of  
Pre-TKA FJS and no improvement

**AUC 0.709 [p=0.001]**

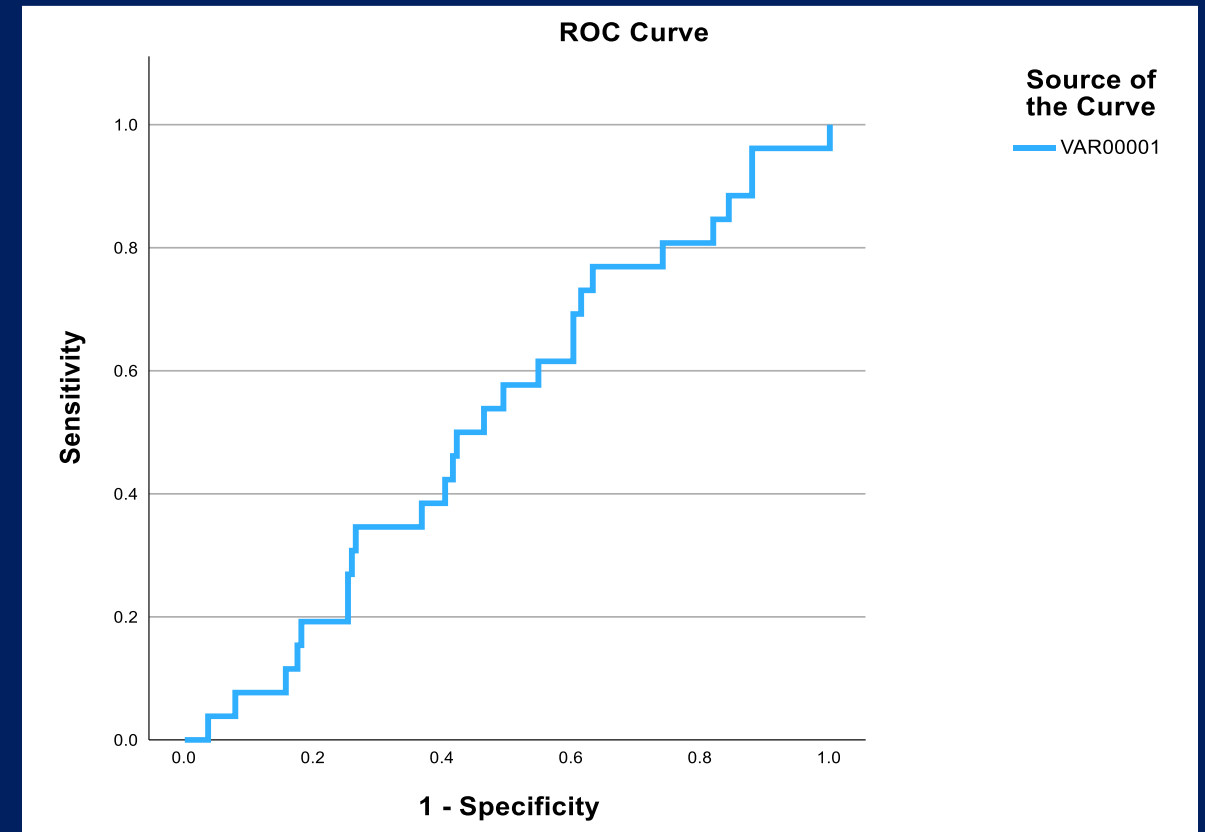
Pre-TKA FJS Cutoff of **20.64**

Sensitivity 61.5%

Specificity 40.4%

In identifying patients not improving

If pre TKA FJS > 20.64 =  
Odds Ratio 2.36 (p=0.023)  
of No Improvement



# Results



	<b>Group I</b> <b>Pre TKA</b> <b>FJS &lt; 20.64</b>	<b>Group II</b> <b>Pre TKA</b> <b>FJS ≥ 20.64</b>	<b>p Value</b>
<b>N</b>	109	83	
<b>Pre op NKSS</b>	72.3 (19.7)	86.6 (24.4)	<b>0.0001</b>
<b>Post op NKSS</b>	151.4 (24.3)	156.7 (21.3)	0.12
<b>Change in NKSS</b>	79.1 (29.2)	70.1 (29.5)	<b>0.04</b>

# Summary



Pre-TKA FJS has a significant correlation with no improvement post TKA, ie higher preop FJS is associated with increased chances of not improving post TKA.

Patients having a Pre-TKA FJS  $>20.64$  have an increased risk (Odds Ratio 2.36) of not improving post TKA and seem to have lesser improvement in clinical outcome as measured by NKSS.

# Conclusion



Pre-TKA FJS can be an important tool in identifying patients likely to not improve with TKA and needs further research.

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