

Are Minimum Two-Year PROMs Necessary for Accurate Assessment of Patient Outcomes After Revision TKA?

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INTRODUCTION: The two-year minimum follow-up required by most academic journals has recently been challenged in total knee arthroplasty (TKA), as the requirement is based on implant survivorship rather than patient-reported outcome measures (PROMs). Further, most asymptomatic surveillance clinic visits have been discontinued following the pandemic. This study determined if clinically meaningful differences were observed in PROMs beyond 1-year after revision TKA.

METHODS:

A retrospective review was performed on prospectively collected PROMs after 448 revision TKAs from a granular institutional database. PROMs were compared by subsequent follow-up intervals preoperatively, at four-months, one-year, and minimum 2-years using P -values <0.05 as significant.

RESULTS: The most common reasons for revision were instability (54%) followed by aseptic loosening (30%). UCLA Activity Level significantly improved from pre-revision baseline to four-months post-revision (4.0 to 4.7, $P<0.001$); however, improvement from four-months to one-year was minimal (4.7 to 4.9, $P=0.337$) and declined slightly from one-year to a minimum of two-years, on average (4.9 to 4.5, $P=0.085$). Satisfaction at 4-months was 79% and declined slightly by one-year (70%, $P=0.075$); however, minimal change was observed from one-year to a minimum of two-years (68%, $P=0.889$). Significant improvements were observed from pre-revision baseline to four-months post-revision in KOOS JR total (48 to 66, $P<0.001$), Knee Society scores of pain with level walking (5.8 to 2.3, $P<0.001$) and climbing stairs (7.5 to 3.8, $P<0.001$), and knees feeling 'always' normal (1.8 to 24%, $P<0.001$); however changes from four-months to one-year to a minimum of two-years were minimal, which did not reach clinically relevant thresholds ($P\geq 0.179$).

DISCUSSION AND CONCLUSION: Patients who underwent revision TKA demonstrated significant improvement in PROMs by 4-months which stayed consistent for joint-specific PROMs out to a minimum of 2-years of follow-up. This study calls into question the two-year minimum follow-up requirement used in academic journals.