

## **PROMs Collection for Total Knee Arthroplasty in a Large Health System Under the New CMS Mandate: Uncovering the Missing Variables**

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**INTRODUCTION:** The Centers for Medicare & Medicaid Services (CMS) now mandate the collection of patient-reported outcome measures (PROMs) as part of the Patient-Reported Outcome Performance Measure (PRO-PM) policy and the Transforming Episode Accountability Model (TEAM). In this study, we aimed to evaluate completion rates for CMS-required PROMs at baseline and one year following primary total knee arthroplasty (TKA) in Medicare patients within a single healthcare system.

**METHODS:** We analyzed prospective data from a cohort of 7536 Medicare patients who underwent primary TKA between 2019 and 2023 within a single healthcare system, encompassing 16 hospitals. This study period was chosen due to having all CMS-mandated variables integrated within our PROMs collection system. Overall and per variable completion rates of CMS-mandated variables were investigated. Baseline variables included body mass index (BMI), Single Item Literacy Screener (SILS), patient-reported pain in a non-operative lower extremity joint, back pain using Oswestry Index item, chronic narcotic use, the Veterans RAND 12-Item Health Survey – Mental Component Summary (VR-12 MCS), and the Knee injury and Osteoarthritis Outcome Score for Joint Replacement (KOOS-JR). One-year variables included only KOOS-JR. Baseline PROMs were collected on the day of surgery through the dedicated website on a tablet at check-in to the surgery center. Methods of 1-year postoperative PROMs collection included passive electronic methods (email, text, patient portal) and active methods (phone calls, personalized emails/texts/letters).

**RESULTS:** Of the 7,536 patients included, 4,325 (57.3%) had complete documentation of all CMS-mandated variables at the 1-year postoperative mark. A total of 5,810 patients (77.1%) had completed baseline data for chronic opioid use, VR-12 MCS, and KOOS-JR. Similarly, 5,809 patients (77.1%) had completed data for BMI, SILS, patient-reported pain in a non-operative lower extremity joint, and back pain assessed via the Oswestry Index item. However, only 4,326 patients (57.4%) had KOOS-JR completed at the 1-year follow-up. The proportion missing per variable is illustrated in **Figure 1**.

### **DISCUSSION AND CONCLUSION:**

In this large cohort of Medicare patients undergoing primary TKA, 57% had complete datasets for all CMS-mandated PROMs variables, with relatively high and consistent completion rates at baseline (77% across all variables). However, only 57% of patients completed the 1-year KOOS-JR, which is the sole mandated long-term outcome measure. This discrepancy highlights a critical bottleneck in longitudinal PROMs collection and underscores the need for targeted strategies to improve follow-up engagement. Focusing on improving 1-year PROMs completion is a crucial first step toward optimizing the PROMs collection under the new CMS PRO-PM policy.