

Comparing Outcomes of Medicare and Other Insurance Groups in TKA: Insights for CMS' Upcoming Mandatory PROMs Reporting Policy

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INTRODUCTION: Total knee arthroplasty (TKA) is a widely performed surgical procedure for treating end-stage knee osteoarthritis. Patient-reported outcome measures (PROMs) are increasingly being used to assess the effectiveness of TKA from the patient's perspective. The Centers for Medicare & Medicaid Services (CMS) has recently implemented mandatory reporting of PROMs for TKA patients, focusing on the Medicare population. As this policy will have far-reaching implications, it is crucial to understand how well the Medicare cohort represents other insurance groups in terms of PROMs and substantial clinical benefit (SCB) achievement. This study aimed to 1) determine the proportion of TKA patients represented by Medicare, Medicaid, Commercial, Workers' Compensation, and other insurance groups at a single center; 2) compare demographics between these groups; 3) compare the proportion of patients achieving SCB thresholds on KOOS JR surveys between the groups; and 4) identify factors affecting the likelihood of achieving SCB for each insurance group.

METHODS: A prospective cohort of 13,491 patients undergoing primary elective TKA between 2016-2021 from a single healthcare system was analyzed. The cohort was divided into Medicare (n=7,926) [inpatient (length of stay (LOS) >1 day) (n=2,812) and outpatient (LOS ≤ 1 day) (n=5,114)], Medicaid (n=508), Commercial (n=4,899), Workers' Compensation (n=43), and other (n=115) groups. Demographics and 1-year Knee Injury and Osteoarthritis Outcome Score - Joint Replacement (KOOS JR) were compared between groups. Substantial clinical benefit for KOOS JR was defined using the proposed threshold by CMS (20 points).

RESULTS: Medicare patients accounted for 58.8% of the total cohort, while Commercial, Medicaid, Workers' Compensation, and other insurance groups represented 36.3%, 3.8%, 0.3%, and 0.9%, respectively. Medicare patients were older (median age 72) compared to other insurance groups (Table 1). The proportion of patients achieving SCB on KOOS JR was highest in the Commercial group (71.3%), followed by Medicare (69.0%), other insurance (73.8%), Medicaid (64.6%), and Workers' Compensation (51.2%). Multivariate logistic regression analysis revealed that non-white race was associated with lower odds of achieving SCB in the Medicare (OR 1.87, 95% CI 1.57-2.23), Commercial (OR 1.79, 95% CI 1.45-2.23), and Medicaid (OR 2.56, 95% CI 1.53-4.28) groups. Higher CCI scores were associated with lower odds of achieving SCB in the Medicare group (OR 1.13, 95% CI 1.07-1.21). Current smoking status was associated with lower odds of achieving SCB in the Medicare group (OR 1.43, 95% CI 1.08-1.90). Higher ADI scores were associated with lower odds of achieving SCB in the Commercial (OR 1.17, 95% CI 1.03-1.32) and Medicaid (OR 1.65, 95% CI 1.01-2.69) groups. Better baseline PROMs were associated with higher odds of achieving SCB across all insurance groups (Table 2).

DISCUSSION AND CONCLUSION: Although Medicare patients represent the majority of the TKA cohort, their outcomes and characteristics may not fully reflect those of patients with other insurance types. Commercial insurance patients, who constitute a substantial proportion of TKA recipients, demonstrated slightly higher rates of achieving SCB compared to Medicare patients. The new CMS policy focusing solely on Medicare patients may not capture the full range of outcomes across different insurance groups. These findings highlight the importance of considering the representativeness of Medicare patients when interpreting and applying the results of mandatory PROMs reporting for TKA. Future studies should investigate the potential impact of these differences in outcomes and patient characteristics on policy development and quality improvement initiatives in TKA.