

HOOS-JR and KOOS-JR MCID Varies by Payer Type: Implications for Mandatory PROM Reporting

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INTRODUCTION: Recent mandates from the Centers for Medicare and Medicaid Services (CMS) have tied patient-reported outcome measure (PROM) metrics to hospital reimbursement for total hip (THA) and knee arthroplasty (TKA). Furthermore, the proportion of patients meeting certain PROM metrics at each hospital will be publicly available. However, threshold values such as the minimal clinically important difference (MCID) may vary across patient subpopulations. The CMS proposal to apply blanket threshold values to all hospitals may skew results depending on the population being served. We hypothesized that socioeconomic outcomes, such as insurance type, may influence achievement thresholds such as MCID for the Hip Disability and Osteoarthritis Outcome Score, Joint Replacement (HOOS-JR) and Knee Disability and Osteoarthritis Outcome Score, Joint Replacement (KOOS-JR).

METHODS: 675 THA and 1,157 TKA patients with HOOS-JR and KOOS-JR scores at preoperative and one-year timepoints, respectively, were categorized by payer type: Commercial, Medicare (including Medicare Replacement), and Medicaid. MCID thresholds for each payer were calculated using a distribution-based method ($0.5 \times$ standard deviation of H/KOOS-JR) via bootstrapping procedure with 1,000 iterations per group and random sampling. The results were then compared with both analysis of variance (ANOVA) and Kruskal-Wallis tests.

RESULTS: The mean HOOS-JR bootstrapped MCIDs for Commercial, Medicare, and Medicaid were 9.0, 8.8, and 13.2, respectively. Both ANOVA and Kruskal-Wallis tests were statistically significant ($P < .0001$). The mean KOOS-JR bootstrapped MCIDs for Commercial, Medicare, and Medicaid were 8.5, 9.0, and 12.5, respectively. Both ANOVA and Kruskal-Wallis tests were statistically significant ($P < .0001$).

DISCUSSION AND CONCLUSION: The threshold MCID is not uniform across payer types. Specifically, Medicaid patients have a significantly higher MCID following THA and TKA. Publicly reporting rates of MCID achievement using a blanket threshold may misrepresent hospitals and providers depending on the subpopulations served.