

Racial Disparities in High-Cost Outliers of Total Joint Arthroplasty Bundled Payment Data

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INTRODUCTION:

Bundled payment models have gained traction in recent years in total joint arthroplasty (TJA) as an alternative to fee-for-service models in an aim to enhance the quality of care while reducing costs. While bundled payment models have the potential to enhance care delivery and promote equitable outcomes, they may inadvertently exacerbate racial disparities in health care. The purpose of this study was to assess for racial disparities in high-cost outlier patients enrolled in the TJA bundle payment model.

METHODS:

A retrospective review was performed including all patients enrolled in a Medicare bundled payment plan for TJA at a tertiary academic medical center during the fiscal period from January 1, 2022 to December 31, 2022. Patients who had a total adjusted cost that was 5% or higher than the practice average were considered a "high-cost outlier." To determine whether Black patients had higher total episode costs, this group was compared to Caucasian patients undergoing a TJA with an unpaired student's t-test. A chi-square test was used to assess if race is independent of high-cost outliers.

RESULTS:

One-hundred-ten patients met inclusion criteria. Fifty patients underwent a total hip arthroplasty, and 60 patients underwent a total knee arthroplasty. Of the 110 patients, 23 identified as Black or African American, 82 as White, 1 as Other, and 4 were Unknown. The mean adjusted cost for TJA for Black patients was \$16,381 compared to \$16,066 in White patients group ($P < .36$). The mean adjusted costs for all patients considered in the average range of cost was \$15,454 compared to the high-cost outliers \$18,509 ($p < .0001$). Black patients were found to be disproportionately associated with high-cost outliers ($P < .0001$).

DISCUSSION AND CONCLUSION:

Black patients enrolled in the TJA bundled payment model incur significantly higher costs and have higher cost variability than White patients. By highlighting racial disparities within bundled payment models, healthcare stakeholders can strive toward a more equitable system by mitigating underlying causes.