

Removal of Total Hip and Total Knee Arthroplasty from the Inpatient Only List: Impact on Health Disparities

Joseph A Bosco¹, Jacob Francis Oeding, Lauren E Grobaty, Claudette Malvina Lajam²

¹NYU Hospital For Joint Diseases, ²Orthopedic Surgery, NYU Langone Orthopedics

INTRODUCTION:

Centers for Medicare and Medicaid Services (CMS) have removed total hip and knee replacement from the Inpatient Only (IPO) list. Outpatient (OP) total joint replacement will soon fall under CJR payment guidelines, with adjustments for readmissions, complications, and quality metrics. There is concern that certain populations may have less success, higher cost, and more readmissions with outpatient total joint arthroplasty (TJA). The purpose of this study is to evaluate the effect of changes to the IPO for different racial and ethnic group patients.

METHODS:

A query of our electronic medical records database identified all elective total knee arthroplasty (TKA) and total hip arthroplasty (THA) patients from 2015 through 2021. Fracture patients were excluded. Patients with same- or next-day discharges were identified as outpatients, while all others were inpatient. The percentages of patients within different race and ethnic groups designated as outpatient were compared over three time periods: prior to 2018, before TKA came off the IPO list (period A), from 2018 to 2020, before THA came off the IPO list (Period B), and after 2020, with both procedures off the IPO list, and with influences of the COVID pandemic (Period C). Additionally, we compared 90-day readmission rates for OP THA and TKA by race and ethnicity over these same time periods. Chi-squared tests were performed, with significance defined as $p < 0.05$.

RESULTS:

A total of 11,819 TKA and 10,212 THA patients were identified. For both TKA, the percentage of Black patients designated OP was significantly lower than the percentage of White patients designated OP over all time periods ($p < 0.001$ for all periods). This was also the case for THA for Periods A and C ($p < 0.001$ for both periods). Compared to White patients, Hispanic patients were less commonly designated OP during Period C in the case of TKA ($p < 0.001$) and during Periods A and C in the case of THA ($p < 0.001$, $p < 0.05$ for A and C, respectively). No significant differences in readmissions were found between races or ethnicities for TKA patients, while Black THA patients had significantly higher rates of readmissions than whites for Period B only ($p < 0.05$). These results are shown in **Tables 1-4** below.

DISCUSSION AND CONCLUSION: Regulatory changes and the COVID pandemic continue to drive patients toward outpatient TJA. Despite similar rates of readmissions, minority THA and TKA patients have less success with a shift toward OP TJA. Further study is warranted on OP TJA outcomes and complications for these populations, to ensure all patients have access to TJA.

Table 1: TKA - Percent Readmissions by Race/Ethnicity by Period

	White	Black	Asian	Other	Hispanic	Non-Hispanic
A (2015-17)	3.62	0.00	0.00	2.38	0.00	2.63
B (2018-19)	5.37	2.94	2.72	1.54	0.00	7.83
C (2020-21)	4.15	2.00	2.27	2.11	4.26	4.30

Table 2: TKA - Percent Outpatient by Race/Ethnicity by Period

	White	Black	Asian	Other	Hispanic	Non-Hispanic
A (2015-17)	10.88	6.08	6.64	7.50	10.24	7.45
B (2018-19)	29.57	14.38	26.63	19.35	19.41	27.51
C (2020-21)	61.93	48.47	62.12	55.70	52.81	56.64

Table 3: THA - Percent Readmissions by Race/Ethnicity by Period

	White	Black	Asian	Other	Hispanic	Non-Hispanic
A (2015-17)	3.84	2.38	0.00	0.74	0.00	3.62
B (2018-19)	4.61	8.05	0.00	8.20	0.00	7.26
C (2020-21)	4.68	3.35	2.33	13.33	11.76	4.55

Table 4: THA - Percent Outpatient by Race/Ethnicity by Period

	White	Black	Asian	Other	Hispanic	Non-Hispanic
A (2015-17)	44.03	19.30	31.91	26.06	14.56	35.45
B (2018-19)	52.76	31.29	41.46	39.35	33.33	47.61
C (2020-21)	63.99	47.39	53.49	61.86	45.95	59.61

* Bolded values indicate $p < 0.05$