

## **Patient-Physician Racial Concordance Increases Likelihood of Total Knee Arthroplasty Recommendation**

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**INTRODUCTION:** Minority patients have been shown to underutilize total knee arthroplasty (TKA) compared to White patients. Specific drivers of this underutilization have not been identified. We sought to determine if racial concordance between patient and physician is associated with surgeon likelihood to recommend TKA.

**METHODS:** This was a prospective study of 402 consecutive patients that presented for management of knee osteoarthritis to the clinics of four fellowship-trained arthroplasty surgeons at a single academic center. We recorded patient and surgeon race/ethnicity as well as the physician-recommended treatment. Patient clinical data was then input to the AAOS appropriate use criteria website to generate a guideline-based procedure recommendation for TKA. Patients that were not appropriate for TKA based on AAOS guidelines were excluded from analyses to minimize selection bias. Univariate and bivariate statistical analyses through software were performed to evaluate the relationship between surgery recommendations by the physician and physician-patient racial concordance.

**RESULTS:** A total of 314 patients were rated "Appropriate" for TKA by the AAOS guidelines and were included in the analysis. Mean age was 66.5±10.9 and race was 45.8% White, 36.6% Black, 10.7% Latino, and 6.9% other. In total, 131 (41.8%) patients received a surgeon recommendation for TKA. Patients with physician-patient racial concordance were significantly more likely to receive a recommendation for surgical treatment than those without racial concordance (47.5% vs. 35.9%, p=0.038). Black patients receiving racially-concordant care were significantly more likely to be recommended surgical treatment than White patients receiving racially-concordant care (59.32% vs. 40.40%, p=0.021). There was no significant difference in frequency of surgical treatment recommendation between minority patients compared to non-minorities.

**DISCUSSION AND CONCLUSION:** Patients receiving racially-concordant care in this cohort were significantly more likely to be offered TKA, and effect of racial-concordance on TKA recommendation was greater among Black patients. These findings provide insight into possible drivers of TKA underutilization among minority groups.