Supplementary Table 1: Primary Unadjusted, Adjusted, and Sensitivity Analyses Estimating Probability of Regional Anesthesia Utilization

	White (%) (95% CI)	Black (%) (95% CI) p-value (compared to White)	Other (%) (95% CI) p-value (compared to White)	Notes
Unadjusted Analysis	52.1 (52.0 – 52.2)	52.3 (51.8 – 52.9) p = 0.560	50.5 (49.9 – 51.1) p < 0.001	
Adjusted Primary Analysis	52.7 (52.4 – 54.1)	53.3 (52.5 – 54.1) p = 0.132	52.0 (51.2 – 52.8) p = 0.084	Primary adjusted model accounting for patient age, sex, Elixhauser comorbidities, preoperative opioid, anticoagulant, and antiplatelet utilization, and year and hospital fixed effects
Sensitivity Analyses: Individual Blocks				
Any Peripheral Block	50.7 (50.4 – 51.0)	51.5 (50.7 – 52.3) p = 0.036*	49.9 (49.1 – 50.7) p = 0.060	Adjusted model with outcome respecified as any peripheral block (femoral, lumbar plexus, or other)
Femoral Nerve Block	43.5 (43.3 – 43.8)	44.8 (44.0 – 45.6) p = 0.002*	42.8 (42.0 – 43.6) p = 0.085	Adjusted model with outcome respecified as femoral nerve block only
Sensitivity Analyses: Race Variable				
Alternative race variable defined by Medicare	52.7 (52.4 – 53.0)	53.3 (52.5 – 54.1) p = 0.144	52.1 (52.5 – 54.1) p = 0.082	Adjusted model with race variable respecified using Research Triangle Institute race variable rather than Medicare enrollment database
"Other" Race categorized as White	52.9 (52.6 – 53.2)	53.6 (52.8 – 54.4) p = 0.083		Adjusted model with "Other" race reassigned to White
"Other" Race categorized as Black	52.9 (52.7 – 53.2)	53.0 (52.4 – 53.6) p = 0.915		Adjusted model with "Other" race reassigned to Black
"Other" Race assigned to White or Black	52.9 (52.6 – 53.2)	53.5 (52.7 – 54.3) p = 0.124		Adjusted model with "Other" race reassigned to White or Black, proportional to population distribution of White and Black

Sensitivity Analysis: Hospital Volume				
Analysis restricted to hospital-years with >50 total knee arthroplasties	54.4 (54.1 – 54.8)	55.0 (54.0 – 56.0) p = 0.272	53.3 (52.3 – 54.4) p = 0.031*	Adjusted model restricted to hospital-year combinations with at least 50 total knee arthroplasties recorded in the study population

*significant at the p<0.05 level.

Supplementary Digital Table 1 presents our primary unadjusted and adjusted models estimating the association between race and block utilization for postoperative pain, along with sensitivity analyses.

First, we present unadjusted predicted probabilities of block administration for postoperative pain for patients identified as White, Black and Other. Next, we present estimates calculated from the primary adjusted model, which was specified as a multivariable logistic regression that accounted for age, sex, Elixhauser comorbidities, preoperative opioid, anticoagulant, and antiplatelet utilization, and year and hospital fixed effects. Odds ratios were converted to predicted probabilities for ease of interpretation. We defined a clinically significant disparity as a relative difference of at least 10% in block rates between groups.

Finally, we present sensitivity analyses testing alternative definitions of the outcome (block administration), the exposure (race variable), as well as a sensitivity analysis restricted to higher-volume hospitals. All sensitivity analyses were specified as multivariable logistic regression models using the same comorbidities and fixed effects as the primary adjusted model. First, we respecified our outcome as only peripheral blocks, and only femoral blocks, rather than the primary composite outcome presented in the main analysis. Blocks were identified using CPT codes in claims data, which means that blocks used solely as the intraoperative anesthetic (i.e., spinal block for intraoperative anesthesia) would not appear in our dataset; thus, our outcome represents utilization of blocks administered for the purpose of postoperative pain. Next, we respecified the race variable to account for known threats to validity for those included in the "Other" category: Asian, Hispanic, Native American, Unknown, and Other.[1] First, we reassigned race using the Medicare Research Triangle Institute variable rather than the enrollment database variable (see Methods for additional detail); next we reassigned those in the Other category first to White, then to Black, and finally with random assignment to White or Black maintaining our population distributions of those in the White and Black categories (i.e., 95% and 5%). Finally, we restricted our analysis to hospitals in years during which at least 50 total knee arthroplasties were recorded in the study population, thus excluding hospitals with low total knee arthroplasty volume.

One additional sensitivity analysis using the RTI race variable with additional racial/ethnic categories is presented in **Supplementary Digital Table 2**.

No comparisons met the prespecified criterion for a clinically significant disparity by race, prespecified as a 10% relative difference.