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OARA SCORE, ASA AND CCI ARE POOR AT PREDICTING FAILURE IN OUTPATIENT TOTAL JOINT ARTHROPLASTY

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OBJECTIVE: The Outpatient Arthroplasty Risk Assessment (OARA) score was designed to identify suitable patients for outpatient total joint arthroplasty (TJA). However, there is limited research on its validity or applicability to minority racial groups. This study compared the predictive values of the OARA score, the American Society of Anesthesiologist (ASA), and the Charlson Comorbidity Index (CCI) amongst three racial groups regarding outpatient discharge success following TJA.

METHODS: This retrospective review included 288 consecutive total knee and hip arthroplasty patients (368 joints) for which OARA scores, ASA, and CCI were calculated. Ethnicity was self-reported as Caucasian, Asian, or Native Hawaiian/Pacific Islander (NHPI). Positive (PPV) and negative predictive values (NPV) were calculated for outpatient discharge and home discharge for all three indices.

RESULTS: Compared to Caucasians and Asians, NHPI had the highest body mass index yet the youngest age. There were no significant differences for OARA scores (51.4-67.1), ASA ≥ 3 (58.1-72.0%) or CCI (2.0-2.6) amongst all three racial groups. There were no significant differences in the PPV for all three scoring systems amongst the racial groups for either unilateral (91.9-95.4%) or bilateral (65.3-73.7%) procedures. The NPV for all three indices were equally poor amongst all racial groups for both unilateral (7.8-12.3%) and bilateral (34.9-40.0%) cases.

CONCLUSION: While the OARA score, ASA, and CCI did not show any significant differences amongst the three racial groups, all three scoring systems were equally poor in predicting which patients would fail to achieve outpatient discharge following TJA. Furthermore, all three scoring systems showed acceptable and equivalent PPV for unilateral TJA only. There is clearly a need for better assessment tools to accurately predict which patients are poor candidates to attempt outpatient TJA.