Paper #26

External Clinical Validation of the "OARA Score" for Outpatient Joint Arthroplasty Candidates

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Introduction: Joint replacement surgery has historically been conducted in the inpatient setting. With recent advances in perioperative protocols, some surgeons have begun performing outpatient arthroplasty. Stratifying patients for whom outpatient arthroplasty is a safe alternative remains a challenge. Recently, Meneghini and colleagues developed a new risk stratification scoring system, the "OARA score," which has yet to be externally validated. This study evaluated this using a large cohort of joint replacement patients.

Methods: A retrospective review of primary joint replacements (THA, TKA, UKA) was performed using a consecutive three-year sample of patients. Inputs recorded included baseline demographics, procedure performed, American Society of Anesthesiologists (ASA) score, and elements of the medical history necessary to calculate the OARA score for each patient. Output variables included length of stay, discharge disposition, 90-day readmission, one-year reoperation rate, and DVT/PE.

Results: 945 patients met inclusion criteria for the study, accounting for 1058 procedures. Mean OARA score for this cohort was 36.9 (range: 0-340). 778 (73.5%) cases met the suggested cutoff of <60, while 280 (26.5%) did not. In multivariate regression analysis, both the OARA score and ASA classification were significantly associated with length of stay, with the OARA carrying a stronger Pearson correlation coefficient (0.22) than the ASA score (0.19). The OARA score was also significantly associated with risk of reoperation (p=.03), surgical site infection (p=.04), and readmission (p=.01), as well as likelihood for home disposition (p<.01).

Conclusions: The OARA score is a valid predictor of length of stay and discharge disposition for accelerated-discharge arthroplasty. Its further use and adoption into clinical practice for patients being considered for outpatient arthroplasty should be considered.