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RISK STRATIFICATION FOR SAME DAY DISCHARGE: AN EVALUATION OF THREE COMORBIDITY INDICES

Abstract

Background: Same-day (SD) discharge following unicompartmental knee arthroplasty (UKA) may be difficult from a community hospital due to treatment of unselected patients with various comorbidities commonly present. Therefore, this study evaluated the efficacy of three comorbidity indices in predicting successful SD discharge from a community hospital.

Methods: Data for 97 UKA patients were retrospectively collected to determine the American Society of Anesthesiology (ASA) comorbidity classification, Charlson Comorbidity Index (CCI) and Outpatient Arthroplasty Risk Assessment (OARA). Multivariable logistic regression were performed to evaluate the influence of independent variables.

Results: Overall, 77 (79.4%) patients achieved SD discharge, with SD discharge failure best predicted by gender (Odds Ratio (OR): 4.45, 95% Confident Interval (CI): 1.307-15.147) and pre-operative use of an assisted walking device (OR: 3.633, CI: 1.218-10.832). The ASA, CCI, and OARA demonstrated similar positive predictive values but were not significant indicators of SD discharge success. While race was not different between SD and next day discharge groups, racial differences were present with OARA score >79 and >110, with White patients having a greater proportion in these classifications than Asian and Native Hawaiian/Pacific Island patients (p=0.046 and p=0.010, respectively).

Conclusion: While no evaluated comorbidity index well predicted the failure of SD discharge, the OARA score was the only measure different between races. Future research should evaluate comorbidities and risk stratification in more ethnically diverse patient populations.

Keywords: Race; Discharge; Comorbidity; Risk Stratification