

Redefining Outpatient Criteria: Safe Discharge Rates in Atypical Hip and Knee Arthroplasty Patients

Simon Martel, Michael Tanzer¹, Brandon Hall², Jack Legler, Adam Hart¹

¹McGill University Health Centre, ²University of Toronto

INTRODUCTION:

The proportion of hip and knee arthroplasty procedures performed as same-day discharge surgeries has increased dramatically in North America over the last decade and the indications for these procedures are growing. With more patients potentially eligible for outpatient arthroplasty, there remain concerns regarding the outcomes of atypical outpatient surgery candidates. The objective of this study was to compare the outcomes of typical and atypical outpatient arthroplasty candidates and to assess the risk factors for failed same-day discharge.

METHODS:

A retrospective cohort study of 214 consecutive patients who underwent outpatient hip or knee arthroplasty was conducted. Utilizing well-established criteria from the literature, which consider patient demographics and medical comorbidities, patients were classified into typical and atypical candidates based on their preoperative suitability for outpatient surgery. The rate of successful same-day discharge, 30-day return to the emergency department and major complications was determined for each group. Chi-squares tests were used to compare the proportions of categorical variables between two groups and Student's t-tests were used for continuous variables. Statistical significance level was set at $p \leq 0.05$.

RESULTS:

Eighty-eight of the 214 included patients were identified as atypical outpatient surgery cases. There was no significant difference in failed same-day discharge ($p=0.50$), return to the emergency department ($p=0.86$) or major complications ($p=0.71$) between the typical and atypical patients. Subgroup analysis did not reveal a difference in outcomes for patients aged > 75 years ($p=0.50$), patients with a BMI > 40 kg/m² ($p=0.59$), complex cases ($p=0.60$), and patients with relative medical contraindications ($p=0.27$). Patients who received systemic corticosteroids in the past year ($p=0.03$), had surgery later in the day ($p<0.001$) or used a gait aid preoperatively ($p=0.03$) were at increased risk of having an unsuccessful same-day discharge.

DISCUSSION AND CONCLUSION:

The criteria used to determine the patient population that can safely undergo outpatient hip and knee arthroplasty surgery can safely be expanded to include more patients.