

## **Predictors of Same-Day Discharge after Total Knee Arthroplasty in a Nonselective Cohort of Patients**

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**INTRODUCTION:** The COVID-19 pandemic created an unprecedented strain on the healthcare system. Due to limited bed availability, in-patient elective surgeries were restricted to many arthroplasty surgeons forcing these procedures to be performed as strictly outpatient. The purpose of this study was to illustrate the effectiveness and safety of performing of outpatient total knee arthroplasty (TKA) on a completely nonselective basis as well as highlight predictors of failure for same-day discharge (SDD).

**METHODS:** A retrospective review of all patients undergoing primary TKA at a regional medical center between January 2021 and February 2022 was conducted. All patients were booked to undergo same day discharge. Preoperative demographics as well as 90-day complications, readmissions, and reoperations were analyzed. Multiple logistic regression was used to evaluate predictors of failure to SSD in this nonselective cohort of outpatient arthroplasty patients.

**RESULTS:** A total of 197 TKAs with mean ( $\pm$  standard deviation) age 66.26 $\pm$ 9.48 years, BMI 32.94 $\pm$ 5.65 were included in the final analysis. In total, 65% of patients identified as female, 50.76% had ASA class  $\geq$  3, and 34.52% had  $\geq$  3 medical comorbidities. Some 78.68% of patients were discharged the same day. Ninety-day complication, readmission, and reoperation rate were 9.66%, 10.14%, and 5.83% respectively. Intraoperative complication ( $p=0.005$ ) and late operative room start time ( $p=0.001$ ) were predictors of failure to SSD. Race, current smoking status, diabetes, ASA class, psychiatric history, preoperative functional status, insurance, marital status, preoperative opioid use, preoperative electrolyte abnormality, and preoperative hemoglobin were not predictive of SSD.

**DISCUSSION AND CONCLUSION:**

Outpatient total knee arthroplasty can be safe and effective even in nonselective cohort of patients with multiple and complex medical comorbidities. Intraoperative complication should be avoided and operating room start time should be early to limit SDD failure.