Can Outpatient TKAs Be Done at a Complex, Academic, Quaternary Referral Center?

Rosa S Valtanen, Charles Patrick Hannon, Nicholas Bedard, Rafael Jose Sierra, Matthew Philip Abdel

INTRODUCTION: Outpatient (same-day discharge) primary total knee arthroplasties (TKAs) have been popularized due to the COVID-19 pandemic, enhancements in surgical techniques and perioperative patient management, and the explosion of ambulatory surgery centers. However, data are limited on results of outpatient TKAs in academic medical centers. The aims of this study were to determine the 90-day rates of emergency room (ER) visits, reoperations, and revisions associated with outpatient TKAs at our complex, academic, quaternary referral center.

METHODS: At our institution, 1787 outpatient primary TKAs were performed between 2019 and 2024 in 1552 unique patients. The mean age was 65 years, 51% were women, mean BMI was 33 kg/m^2, and mean age-weighted Charlson Severity Score (CSS) was 4.2 (range, 0-20). Medical comorbidities, ER visits, reoperations, and revisions occurring within 90 days after TKA were collected. Logistic regression analysis was completed.

RESULTS: The rate of ER visits, reoperations, and revisions within 90 days of surgery were 8.5%, 3%, and 0.7%, respectively. The most common ER visit reason was a medical issue unrelated to surgery (3.2%), followed by evaluation for venous thromboembolism (VTE; 2.6%). The actual VTE rate was 0.6%. The most common reoperation was MUA (1.5%). The 90-day periprosthetic joint infection (PJI) rate was 0.7%, and all resulted in a reoperation or revision. There was one isolated patella revision (0.06%). Increasing age was significantly associated with risk of ER visits (OR, 1.2; p=0.007), but not with reoperations, revisions, or PJI. Increasing CSS was significantly associated with risk of ER visits (OR, 1.1; p=0.001) and revisions (OR, 1.2; p=0.03).

DISCUSSION AND CONCLUSION: We found a high rate of ER visits within 90 days after outpatient TKAs, with almost 40% unattributable to the TKA. Increasing age and comorbidities were associated with increased risk of ER visits; the latter was also associated with an increased risk of revision.