

The Covid Pandemic Caused Permanent Changes to the Rates of Same-Day Discharge in Primary Hip and Knee Arthroplasty

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INTRODUCTION: Same-day discharge (SDD) following primary hip and knee arthroplasty was steadily increasing prior to 2020, but the global pandemic created an urgency to avoid hospitalization. The purpose of this study was to evaluate the change in rate of SDD caused by the pandemic and whether those changes became permanent.

METHODS:

Using an institutional database, we performed a retrospective review of 15,208 primary hip and knee arthroplasties from 1/1/2015-9/30/2022. Cases performed before 3/15/2020 were defined as “pre-pandemic.” Primary outcome measures included: rate of SDD and changes in patient demographics and complications following the pandemic.

RESULTS:

In 2015 the rate of SDD for primary arthroplasty was 25%, which grew annually by 1.4% until March 2020 when the rate of SDD was 32%. Post-pandemic, the rate of SDD jumped above 50% in the second half of 2020 and continued up to 64% of all primary cases by 2022. The biggest increase was for SDD in total knees, which went from under 10% of cases pre-pandemic to 50% by 2022. The average age and BMI of SDD cases pre-pandemic was 60.7±9.3 years and 28.8±4.9 kg/m², both of which increased post-pandemic to 62.4±9 years and 29.4±5.3 kg/m² (p<0.01). Overnight patients had higher rates of intraoperative (2.0% vs. 0.63%) and 90-day postoperative complications (8.4% vs. 4.2%, p<0.00001).

DISCUSSION AND CONCLUSION:

The pandemic caused significant increases in the rate of SDD for primary THA and TKA, and those changes became permanent following the pandemic. The average SDD patient became older and heavier, because the boundaries of SDD widened. The 90-day postoperative complication rate was lower for SDD than overnight patients, suggesting riskier patients were kept overnight. Had the pandemic not occurred, we predict that 29% of patients currently being sent home would have stayed overnight. The results of this study convey a paradigm shift: while pre-pandemic surgeons asked, “Who can I send home?,” post-pandemic the question has shifted to, “Who do I need to keep overnight?”

