

Paper #6

Same-Day Discharge Total Hip Arthroplasty: Rate and Timing of Complications and Catastrophic Events

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Introduction: Same-day discharge (SDD) total hip arthroplasty (THA) has grown in utilization, though concerns exist regarding early post-discharge complications and catastrophic events. We sought to compare the risk of complications and catastrophic events for SDD and inpatient stay after THA.

Methods: A large US healthcare system's total joint replacement registry was used to conduct a cohort study. Primary elective unilateral THA were identified (2017-2018). The exposure of interest was in-hospital length of stay: SDD vs. 1-4-night inpatient stay. Propensity score-weighted Cox proportional hazards regression was used to evaluate risk for 90-day incident events, including: cardiac complication (defined as atrial fibrillation, heart failure, myocardial infarction, or ventricular fibrillation), deep infection, venous thromboembolism (VTE), emergency department (ED) visit, unplanned readmission, and mortality. Propensity scores were calculated using multivariable logistic regression and included age, sex, race/ethnicity, body mass index, smoking status, ASA, medical comorbidities, anesthetic technique, surgical approach, fixation, head size, and bearing surface.

Results: The study sample comprised 13,982 THA, 6033 (43.4%) SDD. Median days-to-events for SDD vs. inpatient was 38 vs. 14 for cardiac complication, 28 vs. 26 for deep infection, 13 vs. 21 for VTE, 11 vs. 13 for ED, 23 vs. 19.5 for readmission, and 7 vs. 28 for mortality. In propensity score-weighted models, SDD THA had a lower risk for 90-day cardiac complication (HR=0.57, 95% CI=0.45-0.72), ED visit (HR=0.81, 95% CI=0.71-0.92), and unplanned readmission (HR=0.73, 95% CI=0.59-0.89), compared to inpatient stay THA. No difference was observed for deep infection (HR=1.33, 95% CI=0.74-2.38), VTE (HR=0.78, 95% CI=0.48-1.28), and mortality (HR=0.84, 95% CI=0.29-2.43).

Conclusions: We observed a lower or similar risk for complications or catastrophic events for SDD THA compared to an inpatient stay. Catastrophic events were more likely to occur early in the 90-day period, but an inpatient stay did not preclude this risk or improve outcomes

Notes
