

## **Comparing Outcomes of Inpatient Versus Outpatient Total Shoulder Arthroplasty**

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**INTRODUCTION:** Total shoulder arthroplasty (TSA) is increasingly performed as an outpatient procedure. The purpose of this study is to compare the clinical outcomes and complications of outpatient versus inpatient TSA.

**METHODS:** The TriNetX database from 2005-2025 was used to identify two cohorts of patients who underwent TSA. Cohort 1 were operated on in an inpatient setting while cohort 2 were operated on in an outpatient setting. Propensity score matching was performed using a 1:1, matching based on preoperative demographic characteristics and comorbidities, including age, gender and body mass index (BMI). After matching, each cohort was composed of 25,557 cases. Both medical and surgical complications were collected within the 5-year follow-up window. Independent t-tests and relative risk ratios were completed within the TriNetX database.

**RESULTS:** Significantly increased risks were observed for several medical complications in the inpatient cohort including an increased risk of analgesic prescription (RR:1.109), readmission rate (RR:1.392), occupational utilization (RR: 1.314), mortality (RR: 1.387), thrombosis (RR: 1.355), sepsis (RR: 1.282), ARDS (RR: 1.295), pneumonia (RR:1.214), pulmonary embolism (RR: 1.215), cellulitis (RR: 1.2), transfusion rates (RR: 1.448), bleeding (RR: 1.369), urinary tract infection (RR: 1.27), GI (RR: 1.288), stroke (RR: 1.306), cardiovascular complications (RR: 1.22), acute renal failure (1.311), and respiratory complications (RR: 1.311). Several surgical complications were also found to have increased risk in the inpatient cohort including revisions (RR: 1.165), prosthetic complications (RR: 1.280), broken hardware (RR: 1.258), periprosthetic infection (RR: 1.408), removal of hardware (RR: 1.303), mechanical loosening (RR: 1.398), dislocation (RR: 1.236), infection following procedure (RR: 1.346), wound dehiscence (RR: 1.258), and debridement (RR: 1.305).

**DISCUSSION AND CONCLUSION:** Outpatient TSA is associated with reduced risk of periprosthetic complications, infection, cardiovascular events, thrombosis, bleeding, and transfusion, up to 5 years postoperatively. Outpatients utilized less healthcare postoperatively as seen by lower risk of readmission, revision, mortality, emergency department and occupational therapy utilization compared to inpatient TSA patients. These findings support that outpatient TSA is safe and may be advantageous for appropriately selected patients.