

## Matt Deasey – 2021 – RRD - ED Visits in the Year Prior to Total Shoulder Arthroplasty as a Risk Factor for Postoperative ED Visits

### ED Visits in the Year Prior to Total Shoulder Arthroplasty as a Risk Factor for Postoperative ED Visits

*Background:* Recent research has found a high rate of emergency department (ED) use after lower extremity arthroplasty; one study found a risk factor for ED presentation after lower extremity arthroplasty was presentation to the ED in the year prior to surgery. It is not known whether a similar association exists for total shoulder arthroplasty (TSA).

*Questions/Purposes:* The goal of this study was to investigate the relationship between preoperative ED visits and postoperative ED visits after anatomic TSA.

*Methods:* The 100% Medicare database was queried for patients who underwent anatomic TSA from 2005 to 2014. Emergency department visits within the year prior to the date of TSA were identified. Patients were additionally stratified by the number and timing of preoperative ED visits. The primary outcome measure was one or more postoperative ED visits within 90 days. A multivariate logistic regression analysis was used to control for patient demographics and comorbidities.

*Results:* Of the 144,338 patients identified, 32,948 (22.8%) had an ED visit in the year prior to surgery. Patients with at least 1 ED visit in the year before surgery presented to the ED at a significantly higher rate than patients without preoperative ED visits (16% versus 6%). An ED visit in the year prior to TSA was the most significant risk factor for postoperative ED visits (in the multivariate analysis). The number of preoperative ED visits in the year prior to surgery demonstrated a significant dose-response relationship with increasing risk of postoperative ED visits. *Conclusions:* Postoperative ED visits occurred in nearly 10% of Medicare patients who underwent TSA in the period studied. More frequent presentation to the ED in the year prior to anatomic TSA was associated with increasing risk of postoperative ED visits. Future studies are needed to investigate the reasons for preoperative ED visits and if any modifiable risk factors are present to improve the ability to risk stratify and optimize patients for elective TSA.