

**Impact of End Stage Renal Disease (ESRD) on Postoperative Outcomes of Patients with Intertrochanteric Femur Fracture:
An ACS NSQIP Analysis 2008-2016**

ESRD is known to increase risk for complications after fractures. The goal of this study is to assess the impact of ESRD on the post-operative outcomes of patients with intertrochanteric femur fractures.

The ACS NSQIP database was queried via CPT codes between 2008 and 2016 for intertrochanteric femur fractures. Patients were then categorized as with or without ESRD. ESRD was defined as having a GFR \leq 15 and currently undergoing dialysis. 1:1 propensity score matching controlling for age, gender, and estimated probability of morbidity provided two groups. Patient demographics, comorbidities, and 30-day post-operative outcomes were collected. Univariate analysis and multivariate logistic regression models were used to analyze ESRD and other risk factors for postoperative complications.

Patients with ESRD tended to be older, were more likely to have diabetes, HTN that requires medication, renal failure, and anemia. They were found to have a higher estimated probability of morbidity, and mortality. Patients without ESRD were more likely to smoke, have disseminated cancer, or COPD. Post-operatively, patients with ESRD were at an increased risk for any adverse events, particularly wound complications, bleeding requiring transfusion, cardiac complications, readmission, and reoperation. Patients without ESRD were found to be at an increased risk for pulmonary embolism, and renal complications. Using multivariate logistic regression, ESRD was found to be an independent predictor of higher risk for cardiac complications, particularly cardiac arrest. Patients with ESRD were at a lower risk for renal complications and were at higher risk for readmission.

ESRD was shown to be a risk factor for complications after surgical treatment for intertrochanteric femur fracture and was associated with a higher risk of readmission. Caution should be exercised when operating on patients with ESRD for intertrochanteric femur fracture to ensure that optimal care is provided.