

<u>Session/Poster#</u>	<u>Presenter</u>
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Upper Extremity Amputations Increase Postoperative Complications in Patients with End-Stage Renal Disease: A Propensity Score-Matched Analysis

Upper extremity amputations continue to be performed in patients with multiple comorbidities including end stage renal disease (ESRD). It is important to understand the risks faced by this patient population. This study aims to address the impact of ESRD on post-operative outcomes of upper extremity amputations. The American College of Surgeons National Surgical Quality Improvement Program database was queried between 2008 and 2016 for upper extremity amputations (excluding revision amputations). ESRD was defined in dialysis patients with a glomerular filtration rate (GFR) below 15 mL/min/1.73 m². Patient demographics, comorbidities, and 30-day post-operative outcomes were collected. Univariate analysis and multivariate logistic regression models were used to analyze ESRD and risk factors for postoperative complications. 1447 patients were identified that had undergone upper extremity amputation (251 with ESRD, 1196 without). Using 1:1 propensity score matching, 228 patients with and without ESRD were isolated. Among the study population 198 (13.7%) patients experienced postoperative complication, 131 (9.1%) patients were readmitted, 85 (5.9%) underwent reoperation, and there was a 3.0% mortality rate. Post-operatively, patients with ESRD had increased rates for adverse events, particularly superficial surgical site infections (p=0.030) and sepsis-related complications (p=0.037). Using multivariate logistic regression, ESRD was found to be an independent predictor of any postoperative complication (OR 1.7 [1.1-2.6]; p=0.028), superficial surgical site infections (OR 3.8 [1.0-13.8]; p=0.022), and sepsis-related complications (OR 2.0 [1.0-3.8]; p=0.040). There were no differences seen in reoperation, readmission, or mortality rates.