Outpatient Limb Deformity & Reconstruction Surgery

Ainsley Katherine Bloomer, Meghan Wally¹, Amber Nicole Stanley, Mario Cuadra, Rachel Seymour¹, Joseph R Hsu, EMIT Collaborative

¹Atrium Health Musculoskeletal Institute

INTRODUCTION: The purpose of this study was to assess the safety and efficacy of outpatient and short-stay limb deformity and reconstruction surgery.

METHODS: Limb deformity and reconstruction surgical cases were prospectively identified by screening the clinic and surgical schedules of orthopaedic limb deformity and trauma surgeons (n=8) at two trauma centers at one healthcare system from November 2019 – March 2022. Research associates screened for patients treated for malunion, nonunion, limb length discrepancy, bone loss, osteomyelitis, angular deformity, cancer/tumor, pediatric sequelae. One orthopaedic trauma surgeon reviewed potential cases for eligibility via weekly audits. Demographics, injury/deformity characteristics, treatment details, and outcomes were collected via electronic health record review.

RESULTS: A total of 237 patients had an outpatient surgery for one of the included conditions during the study period. The median age was 49; 16% were >65 years old. Median BMI was 29; 43% had a BMI >30. Over half (54%) were current or former smokers. A quarter had at least one significant comorbidity, most commonly diabetes. Most patients had private insurance (39%); however 17% were self-pay and 14% had Medicaid. The most common conditions were nonunion (73%) and osteomyelitis (24%). 96% of patients were discharged the same or next day. The patients who stayed longer included patients not cleared by PT on postoperative day 1 (n=4), patients with medical conditions that needed further management (n=4), and one patient who had a delayed PT consult (n=1). 44 patients had complications, most being infection (45%). 52 patients (22%) had readmissions or reoperations related to their condition (n=65 readmissions) in the 12 months following the index procedure; 30 patients were readmitted for scheduled surgeries.

DISCUSSION AND CONCLUSION: Our institution has safely treated a large variety of limb deformity and reconstruction surgeries in the outpatient setting, with almost all patients being discharged the same or next day. This patient population had many comorbidities and risk factors for poor outcomes, yet were managed safely in the outpatient setting.