Understanding Lost to Follow-Up in Orthopaedic Trauma: Patient Perspectives and Outcomes *Thomas J. Spackman, BA*; Christian G. Falgons, MD; Stephen Warner, MD, PhD

**Purpose:** Loss to follow up (LTF) is a prevalent issue in orthopaedic trauma care, impacting patient outcomes and clinical research. This study aimed to determine reasons for LTF, assess functional outcomes of LTF patients, and evaluate whether conventional follow-up durations align with patient needs.

**Methods:** A cross-sectional observational study was conducted at a Level I trauma center, analyzing 1000 consecutive patients who underwent orthopaedic trauma surgery between June 2021 and September 2021. Patients were categorized as completing all follow ups (CAF) or LTF, defined as failing to return after being advised to by their surgeon. Demographic, clinical, and socioeconomic factors were assessed for predictors of follow-up adherence. A subset of LTF patients was contacted to determine reasons for noncompliance and assess patient-reported outcomes using the Patient-Reported Outcomes Measurement Information System (PROMIS). Statistical analyses included  $\chi 2$  tests for categorical variables and Welch's t-tests for continuous variables.

**Results:** Of the 1000 patients analyzed, 611 (61.1%) were LTF. Among the 196 LTF patients successfully contacted, the primary reason for nonadherence was a perceived lack of necessity for follow up (55.6%), while only 6.6% cited cost as a factor. Caucasian patients demonstrated higher follow-up rates (p = 0.04), whereas homelessness (p = 0.05) and substance use (p = 0.002) were associated with LTF. Patients with complications requiring additional procedures were more likely to complete follow up (p<0.001), suggesting potential bias in research relying on long-term follow-up data. PROMIS assessments indicated that LTF patients had pain (T = 51, 95% CI: 44–57) and physical function (T = 48, 95% CI: 41–56) scores near population norms, suggesting satisfactory recovery despite LTF.

**Conclusion:** Our cross-sectional observational study assessed patient-reported outcomes of patients with orthopaedic trauma lost to follow up and showed that many of these patients reported functional recovery. These findings challenge the necessity of extended, rigid follow-up schedules. Additionally, research dependent on long-term follow up may be biased, as patients experiencing complications are more likely to adhere. Future initiatives should emphasize patient education and targeted interventions to enhance follow-up adherence, especially for at-risk populations. A reassessment of follow-up duration requirements is needed to balance clinical relevance, patient engagement, and research feasibility.