

## **Missed Opportunities: Underbilling of Non-Operative Fracture Care is Common in Orthopedic Polytrauma Patients**

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### **INTRODUCTION:**

Literature has demonstrated the occurrence of missed injuries in severely polytraumatized patients, often attributed to the presence of distracting injuries. Similarly, the documentation of surgical fracture care may “distract” the surgeon from comprehensive billing, and services for nonoperative fracture care of lesser injuries may go unrecognized. The purpose of this study is to quantify underbilling of non-operative care in orthopedic polytrauma patients and to measure the economic impact of non-operative care that goes unbilled.

### **METHODS:**

This retrospective study included adult and pediatric patients presenting to a single level one trauma center with an injury severity score >16 and multiple orthopedic injuries between July 2019 and July 2023. Only patients with at least one operatively treated orthopaedic injury, not including operations performed by a hand or spine surgeon, were included. A billing database was queried to obtain all CPT codes submitted for billing. A list of managed diagnoses was obtained for each patient through chart review. A list of missed CPT codes for non-operative care was derived via reconciling the list of submitted CPT codes with the managed diagnoses for each patient. Lost revenue was calculated using the 2025 Center for Medicare/Medicaid Services Physician Fee Schedule.

### **RESULTS:**

123 patients were included. Sixty-nine (56%) patients had a total of 127 missed codes for non-operative orthopedic care. Lost revenue totaled \$35,797.06 overall, corresponding to losses of \$8,949.26 per year and \$518.80 per patient with missed codes. The majority of missed codes (55.91%) were related to lower extremity diagnoses (n=71 codes). The most common missed codes were for closed treatment of metatarsal (n=20 codes | 8 patients), scapula (n=15 | 14), and tarsal fractures (n=15 | 7), which correspond to total losses of \$4414.60, \$4060.05, and \$3097.50 for each fracture type, respectively.

### **DISCUSSION AND CONCLUSION:**

Underbilling of non-operative fracture care occurs in a majority of heavily traumatized patients who undergo orthopaedic surgery. The strict inclusion criteria of this study likely underestimate the total occurrence of underbilling and subsequent lost revenue. Surgeons should be mindful of this pattern to ensure appropriate reimbursement for all services rendered.