

## Orthogeriatric Trauma Units Improve Patient Outcomes in Geriatric Hip Fracture Patients

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**Purpose:** Osteoporotic hip fractures in geriatric patients are an increasing part of the workload of trauma surgeons and are associated with negative patient outcomes. Implementation of orthogeriatric trauma care units can improve patient outcomes. The primary objective of this study was to compare postoperative complications, time spent at the emergency department (ED), time to surgery, hospital length of stay (HLOS), and survival of hip fracture patient admitted to the hospital before and after implementation of the orthogeriatric trauma unit.

**Methods:** This retrospective cohort study was conducted at a Level-II trauma center between 2016 and 2018. Patients aged 70 years or older with a hip fracture undergoing surgery were included. Patients were divided into 3 groups: historical control cohort, orthogeriatric trauma unit cohort, and a contemporary control cohort. Outcomes were postoperative complications, patient survival, time spent at the ED, time to surgery, and HLOS.

**Results:** A total of 875 patients were included. There was a significant decrease in postoperative complications for patients admitted to the orthogeriatric trauma unit (42% vs 49% in the historical cohort,  $P = 0.034$ ). Median turnaround time at the ED was reduced by 38 minutes ( $P < 0.001$ ). There were no differences in time to surgery, HLOS, or mortality compared to the historical cohort. Patients in the contemporary control cohort had a longer median turnaround time at the ED (38 minutes,  $P < 0.001$ ) and a longer median time to surgery (3 hours,  $P = 0.021$ ) in comparison to patients admitted to the orthogeriatric trauma unit.

**Conclusion:** This study showed that implementation of an orthogeriatric trauma unit lead to a decrease in postsurgical complications and less time spent at the ED. Physicians dealing with geriatric fracture patients on a regular basis should consider implementing integrated orthogeriatric trauma care.

