

POSTER 7

ORTHOPAEDIC TRAUMA AND AN AGING POPULATION: A RETROSPECTIVE REVIEW OF FACTORS INFLUENCING OUTCOMES

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Introduction: Orthopaedic trauma outcomes are largely dependent upon mechanism of injury. However, elderly patients often sustain lower energy trauma, but have worse outcomes. Studies have shown that elderly patients are more likely to have longer lengths of stay, spend more time in ICU, and that preexisting medical comorbidities significantly increase mortality. The purpose of this study is to investigate if age is associated with outcomes in trauma patients at the University of Missouri.

Methods: After IRB approval, a retrospective review of orthopaedic trauma patients from 2005-2009 was performed. Data points included demographics, medical comorbidities, injuries, surgeries, length of stay, and fracture descriptives.

Results: Patients over age 65 account for 13% of the patient population yet were responsible for 29% of total days spent in hospital. Of these days, an average 50.3% and 63.3% were spent in the ICU among patients aged 66-75 and over 75, respectively. Comorbidities varied, however, patients over 75 years had 2.28 comorbidities per-person compared to 1.09 per-person for the 18-25 age-range. The elderly population has the highest proportion of injuries that were Class 3 or Unclassified while younger populations had more level 1 trauma. Liver and splenic laceration rates were higher in younger populations, patients 18-25 and 26-35 were 0.13 and 0.16 respectively and lower in the over 75 populations at 0.04.

Discussion: This study has characterized the unique population of orthopaedic trauma in mid-Missouri with regards to age and outcomes. At the University of Missouri, elderly patients account for longer hospital and ICU stays despite sustaining lower-energy trauma.