

Staff commitment to trauma care improves mortality and length of stay at a level I trauma center.

[Mains C](#), [Scarborough K](#), [Bar-Or R](#), [Hawkes A](#), [Huber J](#), [Bourg P](#), [Bar-Or D](#).

Trauma Services Department, St. Anthony Central Hospital, Denver, Colorado, USA.

BACKGROUND: Optimizing human resources at trauma facilities may increase quality of care. The purpose of this study was to assess whether staffing changes within a Level I trauma center improved mortality and shortened length of stay (LOS) for trauma patients. **METHODS:** Mortality, hospital LOS, and intensive care unit LOS were evaluated during three time periods: trauma service coverage by in-house general surgery residents and attendings ("group 1"), the creation of a core trauma panel with in-house trauma surgeons ("group 2"), and the addition of physician assistants (PAs) to the core trauma panel ("group 3"). Logistic regression and chi tests were used to compare mortalities, and multiple linear regression, t-tests, and median tests were used to compare LOS. **RESULTS:** There were 15,297 adult patients with trauma included in the analysis. After adjustment for transfers-in, mechanism of injury, injury severity score, age, and head injury, the presence of in-house trauma surgeons (group 2) decreased the following compared with group 1: overall mortality (3.12% vs. 3.82%, $p = 0.05$), mortality in the severely injured (11.41% vs. 14.83%, $p = 0.02$), and median intensive care unit LOS (3.03 days vs. 3.40 days, $p = 0.006$). The introduction of PAs to the core trauma panel (group 3 vs. group 2) decreased overall mortality (2.80% vs. 3.76%, $p = 0.05$), and reduced mean and median hospital LOS (4.32 days vs. 4.69 days, $p = 0.05$; and 3.74 days vs. 3.88 days, $p = 0.02$, respectively). **CONCLUSION:** The presence of in-house core trauma surgeons and PAs improves management and outcome of critically injured trauma patients within a level I trauma center. PMID: 19430233 [PubMed - indexed for MEDLINE]