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The Geriatric Trauma Team: A Novel Approach to Caring for Elderly Trauma Patients

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Introduction: Nationwide, geriatric trauma has progressively increased over the last two decades with mechanisms like falls becoming a dominant mechanism of injury. This population often has comorbidities requiring complex concurrent medical management. In view of this rising proportion of elderly trauma patients, in January 2012, at our Level I Trauma Center, we instituted a separate Geriatric Trauma Team – led by a Geriatrician with trauma mid-level practitioners, dedicated to caring for elderly patients with single system injury, who after initial evaluation by the Trauma Team did not require Intensive Care Unit (ICU) management. We studied patients on this new exclusive "team", comparing their outcomes with those patients under the prior traditional model.

Methods: At our ACS verified Level I Trauma Center, trauma registry data of patients admitted to the Geriatric Trauma Team (single system injury, age ≥55, not requiring ICU) was collected from the period between January 1- December 31st, 2012. Data was also collected for the preceding 12-month period (Jan-Dec 2011) – the Pre-Geriatric Team Period. Length of stay (LOS), re-admission rates, Injury Severity Score (ISS), mechanism of injury, injury type, complications and mortality data were recorded. Comparisons were performed for readmissions and LOS based on ISS groupings (0 -9, 10 -15, 16 -24 & ≥ 25). Independent t-test and chi-squared testing were used for continuous and discrete variable comparisons with 0.05 considered statistical significance.

Results: A total of 310 patients were admitted to the Geriatric Team in the 12-month period studied vs. 906 patients ≥ 55 yrs. in the preceding 12 months. Falls and Motor Vehicle crashes were the most common mechanism of injury in both groups. Subdural hematomas, intra-cerebral hemorrhage and spine fractures were the most common injuries in both periods. Mean ISS was expectedly overall higher in the Pre-Geriatric group that consisted of all elderly patients in that 12 month period (12.3 vs. 10.4, $p < 0.0005$) Analyzing four individual ISS groupings stated above, there were no statistically significant differences in the LOS and readmission rates comparing the Geriatric team to the Pre-Geriatric Team period. There was no in hospital mortality on the Geriatric Team during the 12-month period studied.

Conclusion: A team led by a geriatrician exclusively caring for elderly patients with single system injuries after clearance by primary Trauma Team's assessment is equally as effective as the traditional trauma team model with regard to LOS and re-admissions. The ability to specifically focus on the complex medical and social issues potentially proffers an additionally advantage to this population. In the current climate of trauma personnel shortages and resident hour restrictions at large Trauma Centers, this model and adaptations to it, could present viable options for caring for the increasing ranks of elderly injured patients.