

Just-In-Time Learning Series: ESSENTIALS IN TRAUMA CARE IN THE GERIATRIC POPULATION IN A DISASTER SETTING



MOUNTAIN PLAINS
Regional Disaster
Health Response System

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GERIATRIC TRAUMA ESSENTIALS

- The geriatric population is increasing to become the largest segment of the adult population.
 - Estimated increase from the current 14% to 22% of the US population over the next 15 years
- Initial trauma care in the geriatric population is nearly identical to that of the non-geriatric adult population. However, in the disaster setting, after field triage and care, **triaging transport to a facility with multidisciplinary capabilities will be the best predictor of risk adjusted survival and decreased disability in the geriatric population.**
- Defining the geriatric trauma population is difficult in the hospital setting and more difficult in the field. Age may not be the best surrogate for "geriatric".
- The clinical frailty scale can be used at the point of care by direct observation and minimal history if available.

PRIMARY SURVEY

Airway –Teeth, Cervical spine

Breathing – COPD (baseline hypercarbia, altered PFTs)

Circulation – Home meds, baseline HTN

Disability - pre-existing cognitive or movement disorders

Environment/Exposure – fragile skin, cachexia, hypothermia

On initial evaluation maintaining a high index of suspicion for trauma in geriatric patients is critical. Assuming they are more injured than they are (over triage) is favored over missing injuries (under triage).

Vital sign indications of hemorrhagic shock need to be adjusted in geriatric trauma using SBP < 110 and HR >90

Common Comorbid Conditions

Acute coronary syndrome (EKG)

Hypovolemia/dehydration

Urinary tract infection

Pneumonia

Chronic renal failure

Cerebrovascular event

Syncope

Medications that can affect initial care

Anticoagulants

Anti-platelet medications

Beta blockers

Antihypertensives

Hypoglycemics – oral and parenteral

Psychoactive meds (anticholinergics, antidepressants)

Traumatic Brain Injury in Geriatric Patients

- Severe traumatic brain injury carries a higher mortality in the geriatric population
- Smaller changes in GCS equate with higher odds of mortality in geriatric patients
- In the field GCS is the best predictor of survivability and disability
- Loss of gag or pupil response, and/or GCS less than 5 carry exceptionally high mortality - decision to transport should be questioned in MCI
- Pitfalls in the geriatric population include: medications, medical conditions, hearing impairment and pre-existing neurocognitive disorders

Axial Skeletal Injuries in Geriatric Patients

- Injury identification is no different than in non-geriatric adult patients. Sensory and motor examination along with direct vertebral palpation are the cornerstones.
- Triage considerations - Spinal cord injuries (SCIs) in geriatric patients carry an in-hospital mortality of greater than 40% with increasing mortality with higher SCI level.
- Intubation due to high spinal cord injury should be considered a relative contraindication for transport and MCI due to exceedingly high mortality.

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References: ACS Best Practices Guidelines in Geriatric Trauma Management, ACS TQIP Best Practices Guidelines

