

# SILVER TRAUMA - MAJOR TRAUMA IN OLDER ADULTS

## WHY IS THIS IMPORTANT

Silver trauma is the term used to describe major trauma in a patient  $\geq 65$  years old.

Silver trauma patients have a similar injury severity and distribution of injuries compared to young major trauma patients HOWEVER important points to consider in silver trauma patients:

1. Silver trauma patients are under-triaged, under-treated, wait longer for investigations and diagnoses and are much more likely to die;
2. A fall of  $<2$  meters is the commonest mechanism of injury to cause significant injuries in older patients, in contrast to the predominance of road traffic collisions in younger patients;
3. Vital sign derangement can be blunted or absent, due to a combination of any/all of altered physiology, co-morbidities and polypharmacy.

## HOW DOES SILVER TRAUMA DIFFER FROM TYPICAL MAJOR TRAUMA?

Current trauma triage is directed to identifying high energy transfer trauma where the potential for major injury is usually obvious from the scene of the incident. The difficulty in the early identification of significant injuries in older patients may be caused by:

- Low energy transfer mechanisms of injury;
- Co-morbidities which make the presentation less obvious;
- Signs of significant injury may take longer to manifest.

Traumatic Brain Injury (TBI) is the commonest cause of death in older adults. With a similar TBI severity, older adults have a better Glasgow Coma Score when compared to younger patients.

Older patients have been consistently shown to have poorer outcomes following rib fractures, which may be related to:

- Multiple comorbidities;
- Reduced physiological reserve;
- Greater difficulty in assessing and managing hemodynamics.

Silver Trauma is the best thought of as a distinct entity from typical major trauma seen in younger age groups, and it therefore warrants a different medical response.

This education material was developed by the *European Task Force for Geriatric Emergency Medicine*, which is a collaboration between the *European Society for Emergency Medicine (EUSEM)* and the *European Geriatric Medicine Society (EuGMS)*. For more information, please visit: [geriEMEurope.eu](http://geriEMEurope.eu) and follow us on Twitter: [@geriEMEurope](https://twitter.com/geriEMEurope).

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## WHAT CAN WE DO?

1. Assess the older patients presenting with low energy transfer trauma for significant injuries.
2. Aim to improve the pre-hospital and in-hospital triage systems to identify major trauma in older adults by incorporating risk stratifying tools such as silver trauma safety net and older patient trauma screening tool for trauma units, major trauma centers and local emergency hospitals.
3. Look out for the signs of occult haemorrhage:
  - A heart rate  $> 90$  bpm;
  - The systolic blood pressure less than 110 mmHg;
  - A raised lactate  $>2.5$  mmol/L.
4. Perform a CT head scan on any patient aged  $\geq 65$  years with loss of consciousness or amnesia following a head injury. Furthermore, perform a CT scan on any patient with a head injury who is on warfarin, other anticoagulants (Direct Oral Anticoagulants), clopidogrel (anti-platelet therapy) or with bleeding disorders like haemophilia.
5. Any adult  $\geq 65$  years and clinical suspicion of cervical spine injury should have a CT cervical spine as soon as possible. Forced application of a collar is unnecessary as it may cause harm.
6. The mainstay of treatment for rib fractures should be to provide adequate analgesia coupled with meticulous respiratory care in order to prevent complications such as atelectasis and pneumonia.
7. Screen patients for underlying frailty, adapt a holistic approach to assess the multidimensional needs of the individual patient and agree patient centered goals of treatment. See "Risk stratification" poster and "Comprehensive Geriatric Assessment in the Emergency Department" poster and Silver surveys (Chapter 5 Hector Manual).

## TOOLBOX & REFERENCES

- Management of Older Major Trauma Patients Third Edition. Pan London Major Trauma. April 2021
- Silver Trauma. RCEMlearning FOAMed
- Hector Course Manual
- Silver Trauma Safety Net Documents
- Trauma Triage Decision Tool

All toolboxes, references and additional information are available via QR-code.

