

GENERAL TRAUMA MANAGEMENT

UPDATED 1/2024

ALL PROVIDERS / EMT

- Focused history and physical exam
- Continuous cardiac monitoring, ETCo₂, and pulse oximetry
- Treatment Plan**
- Primary Survey:**
 - Hemorrhage Control: Assess for and stop severe hemorrhage
 - Airway:
 - Assess airway patency, ask patient to talk to assess stridor and ease of air movement
 - Evaluate for injuries that may lead to airway obstruction including unstable facial fractures, expanding neck hematoma, blood or vomitus in the airway, facial burns/inhalation injury
 - Evaluate mental status for ability to protect airway (AVPU= "P" or "U" or GCS <8). These patients will require airway protection.
 - Establish a patent airway (with cervical spine precautions)
 - Breathing:
 - Assess respiratory rate and pattern, symmetry of chest wall movement, and presence of breath sounds bilaterally
 - If chest injury present in a hypotensive patient, consider tension pneumothorax
 - Needle Thoracostomy: The 5th intercostal space at the anterior axillary line is the **preferred location**
 - If placing at the 5th ICS at the anterior axillary line, a **MAXIMUM DEPTH of 5 cm** catheter should be used to minimize risk of injury to vital structures
 - If placing at the 2nd ICS/mid-clavicular line, a **MINIMUM DEPTH of 5 cm** (and 8 cm may be necessary)
 - For open chest wound, place an occlusive dressing sealed on 3 sides
 - Circulation:
 - Assess vital signs / check for radial pulse
 - **If pelvis is unstable (based on lateral compression), consider pelvic binder to stabilize pelvis**
 - **Reassess any prior tourniquet applications. Expose wound and determine if tourniquet is needed.**
 - **If needed, replace any tourniquets that are placed over clothing to directly on skin.**
 - **If not needed, replace tourniquet with hemostatic or pressuring dressings**
 - **Obtain IV/IO access and begin fluid resuscitation as needed**
 - **Begin TXA administration, if available**
 - Disability (quick neurologic evaluation)
 - Assess pupils, motor movement of extremities, and mental status (AVPU)
 - **In cases of TBI:**
 - **Maintain SpO₂ saturation >90-95%**
 - **Maintain SBP 100-110 mmHg**
 - **Elevate head of bed to 30°, if patient is not in shock**
 - **Hyperventilate using continuous capnography (goal ETCo₂ 32-38 mmHg)**
 - Exposure/Environment:
 - Rapid evaluation of entire body (including back) to assess for injuries
 - **Prevent hypothermia by removing wet clothing, providing passive rewarming, and use of warmed IV fluids (if fluids indicated)**
 - **Treat pain per the *Pain Management Guideline*.**
 - **Treat anxiety per the *Behavioral Emergencies Guideline*.**

Key Considerations

- Scene times should be as short as possible for severely injured patients (Goal: 10 minutes). Perform required procedures enroute to the trauma center.
- Severely injured trauma patients should be transported to a trauma center, as per the **Field Trauma Triage Guideline**.
- **Withholding and termination of resuscitative efforts**
 - Resuscitative efforts should be withheld for trauma patients with the following:
 - Decapitation
 - Hemitorporectomy (**transection of trunk**)
 - Signs of rigor mortis or dependent lividity
 - Blunt trauma patients who are apneic, pulseless, and have no organized activity on the cardiac monitor
 - Resuscitative efforts may be terminated in patients with traumatic arrest who have no return to spontaneous circulation after 15-30 minutes of resuscitative efforts
- Pediatric lowest acceptable systolic blood pressures are birth to 1 month = 60mmHg, 1 month to 1 year = 70mmHg, 1 year to 10 years is = 70mmHg + (age x 2) and over 10 years = 90mmHg.

ADULT

PEDIATRIC (<15 years of Age)
NOTE: Pediatric weight based dosing should not exceed Adult dosing.

AEMT

AEMT

- Vascular access and begin fluid therapy

- Vascular access and begin fluid therapy

Paramedic

Paramedic

Suspected Tension Pneumothorax:

Suspected Tension Pneumothorax:

- Evidence of chest trauma + hypotension:
 - Immediate needle decompression of affected side
 - Insert needle at **5th ICS along the mid-axillary line**

- Evidence of chest trauma + hypotension:
 - Immediate needle decompression of affected side
 - Insert needle at **5th ICS along the mid-axillary line**

Traumatic Arrest

Traumatic Arrest

- Consider bilateral needle decompression based on mechanism of injury

- Consider bilateral needle decompression based on mechanism of injury