

# GENERAL TRAUMA MANAGEMENT

## UPDATED 1/2024

### ALL PROVIDERS / EMT

- Focused history and physical exam
- Continuous cardiac monitoring, ETCo<sub>2</sub>, 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 5<sup>th</sup> intercostal space at the anterior axillary line is the preferred location
        - If placing at the 5<sup>th</sup> 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 2<sup>nd</sup> 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 SpO<sub>2</sub> 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 ETCo<sub>2</sub> 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**.

- 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**

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- ❑ Vascular access and begin fluid therapy
- ❑ **Suspected Tension Pneumothorax:**
  - Evidence of chest trauma + hypotension:
    - Immediate needle decompression of affected side
    - Insert needle at **5th ICS along the mid-axillary line**
- ❑ **Traumatic Arrest**
  - Consider bilateral needle decompression based on mechanism of injury

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**PARAMEDIC**