

Initial Assessment and Management of the Trauma Patient

Pre-Patient Arrival

- Introduction/identification of team members and their roles (Huddle)
- Commitment to practice closed loop communication
- Personal protective equipment (gowns, gloves, shields)
- Crowd control
- Scribe present
- ED Nursing staff present
- ED Physician staff present
- Trauma Surgery present
- Radiology techs present
- Blood bank resources available
- Pharmacist present
- Respiratory therapy present with ventilator
- Intubation equipment present (with bougie, glidescope, and cricothyroidotomy kit)
- Oxygen source (wall and portable) available
- Suction hooked up and working
- Monitors (wall and portable) available
- Rapid infuser present
- Pelvic binder available
- Tourniquet available
- Ultrasound with patient data entered
- Trauma shears
- Blanket
- Central Venous Catheter kit
- Tube thoracostomy trays available
- Pleurovac available
- REBOA Kit available
- Venous cutdown tray available
- Thoracotomy tray available
- NGT available
- Foley catheter available
- Extremity splints available
- Doppler available
- POC testing (INR, Electrolytes (orange), Lactate/ABG (blue))

Primary Survey

A: Airway with C-spine precautions

- Patency (phonation)
- Maintain c-spine precaution
- Intubate if indicated (GCS \leq 8, Airway compromise, Hypoxia/Hypercarbia, critical trauma)

B: Breathing

- Inspect chest rise and RR, palpate chest
- Auscultate bilateral hemithoraces
- Apply O₂
- Decompress PTX if indicated

C: Circulation with external hemorrhage control

- Skin color
- Blood pressure, heart rate
- Apply pressure, binder or tourniquet (note time)
- 2 large bore I.V.s
- Administer crystalloid, blood products as needed/call for MTP prn

D: Disability

- GCS
- Pupillary exam
- Gross motor/sensory exam

E: Exposure/Environment

- Undress patient: Identify all external signs of injury
- Cover patient: Prevent hypothermia

Adjuncts to Primary Survey

- eFAST
 - Pericardial fluid
 - RUQ fluid
 - LUQ fluid
 - Pelvic fluid
 - Lung-sliding
- CXR
 - Pneumothorax
 - Hemothorax
 - Rib fractures
 - ETT/Chest tube/Central line position
 - Diaphragm position
 - Mediastinal width
- PXR
 - Pubic symphysis width
 - Gross fractures and their fracture pattern
- Gastric catheter
 - If intubated
 - Oral-gastric if evidence of nasal/facial trauma
- Urinary catheter if indicated (intubated, pelvic fracture)

- Exception: Blood at meatus
- Labs
 - CBC, BMP, Coags, T&S, Troponin, Total CK, Blood Alcohol Level, UTOX
 - ABG/A-Lactate: (All TTA-1s and/or ≥ 65 years old)
 - POCT: Hb x3, V-Lactate, VBG, INR
- 12 Lead EKG

Secondary Survey

AMPLE (Allergies, Meds, PMH, Last meal, Events preceding) from patients, family/friends, EMS

HEENT

- Note bruising/lacerations
- Feel for skull fractures
- Feel for facial fractures
- Assess for malocclusion
- Inspect for oral/nasal bleeding/hematomas

Neck

- Subcutaneous air
- Hematomas/"seat-belt sign"
- Violation of platysma
- C-spine tenderness
- Bruit

Chest

- Chest wall tenderness
- Crepitus
- Breath sounds
- Symmetry

Abdomen

- Inspect for abrasions/"seat-belt signs"/penetrating injuries
- Palpate for tenderness/peritonitis

Pelvis

- Palpate for bony tenderness/stability/symphysis widening

GU

- Blood at urethral meatus
- Perineum for lacerations/hematomas
- Rectal tone/blood

Neurologic

- Re-assess the pupils and LOC
- Re-assess the GCS
- Re-assess motor/sensory exam

Vascular

- Palpate radial, femoral and DP/PT pulses
- Doppler pulses and perform ABIs if diminished/discrpancy or non-palpable

Musculoskeletal

- Palpate all extremities for tenderness/deformities/tense compartments
- Reduce fractures and splint; re-assess pulses
- Palpate for spine tenderness (log-roll)