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 ≤ 8, Airway compromise, Hypoxia/Hypercarbia, critical trauma)
B: Breathing
   - Inspect chest rise and RR, palpate chest
   - Ascultate 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/discrepancy 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)