Major Trauma

Signs and Symptoms

- Deformities
- Contusions
- Abrasions
- Punctures and Penetrations
- Burns
- Tenderness
- Lacerations
- Swelling
- Altered mental status or unconsciousness
- Hypotension or shock
- Respiratory/cardiac arrest

History

- Time and mechanism of injury
- Damage to structure or vehicle
- Location in structure or vehicle
- Others injured or dead
- Speed and details of MVC
- Restraints/protective equipment
- Past medical history
- Medications

Differentials

- Chest
  - Tension pneumothorax
  - Flail chest
  - Pericardial tamponade
- Open chest wound
- Hemothorax
- Intra-abdominal bleeding
- Pelvis/femur fracture
- Spine fracture/cord injury
- Head injury
- Extremity fracture/dislocation
- Airway compromise
- Hypothermia

WARNINGS

! Consider environmental temperature and conditions, especially in patients with a prolonged extrication.

Care

B E I P

Follow General Directive #3, Orders for all Patients.

Rapid trauma assessment and GCS

Consider rapid grou/air transport per General Directive #5 Destination Determination.

E I P

Establish IV **Normal Saline** and bolus to maintain SBP > 90 mmHg. Consider $SpCO_2$ monitoring

I P

Establish cardiac monitoring

B E I P

Follow Trauma Protocol #6 Spinal Injuries

Determine vital signs/perfusion

Is the patient stable?

No

B E I P

Consider:

Stabilization of long bone fracture

Stabilization of pelvic fracture

Control of external hemorrhage

I P

Consider chest decompression if signs of tension pneumothorax are present

Yes

B E I P

Ongoing assessment

E I P

Consider Non-Cardiac Emergencies Protocol #8 Pain Management if SBP > 100 mmHg

Pearls

- Exam should include: Mental status, skin, HEENT, heart, lung, abdomen, extremities, back, and neuro.
- In prolonged extrications/ serious trauma consider air transport for transport speed.
- Severe bleeding from an extremity not rapidly controlled may necessitate the application of a tourniquet.
- The goal when caring for a major trauma patient is to minimize scene time.
- A patient with a possible head injury should be ventilated at a rate of 10 breaths/minute. In the presence of increased ICP, mild hyperventilation at a rate of 20 breaths/minute should only be performed until condition resolves.
- A patient should be considered unstable if any of the following are present:
  - Respiratory rate < 8 or > 30
  - Injuries affecting breathing
  - Altered level of consciousness
  - GCS < 13
  - SBP < 90 mmHg with S/S of shock
  - Heart rate > 120 with S/S of shock
  - Signs of internal bleeding

Performance indicators

- Proper completion and documentation of assessment.
- Timely consultation with medical control for destination determination.