Multiple Trauma

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

Signs and Symptoms
- Pain, swelling
- Deformity, lesions, bleeding
- Altered mental status or unconscious
- Hypotension or shock
- Arrest

Differential (Life threatening)
- Chest:
  - Tension pneumothorax
  - Flail chest
  - Pericardial tamponade
  - Open chest wound
  - Hemotorax
- Intra-abdominal bleeding
- Pelvis / Femur fracture
- Spine fracture / Cord injury
- Head injury (see Head Trauma)
- Extremity fracture / Dislocation
- HEENT (Airway obstruction)
- Hypothermia

Assessment of Serious Signs / Symptoms
ABC and LOC

Airway Protocol(s)
- if indicated

Spinal Immobilization Procedure
- IV Procedure
- IO Procedure
- Cardiac Monitor

VS / Perfusion / GCS

Normal
- Repeat Assessment Adult Procedure
  - Splint Suspected Fractures
  - Consider Pelvic Binding
  - Control External Hemorrhage
  - Monitor and Reassess

Transport to appropriate destination using
Trauma and Burn: EMS Triage and Destination Plan

Abnormal
- Hypotension / Shock Protocol
- Notify Destination or Contact Medical Control

Rapid Transport to appropriate destination using
Trauma and Burn: EMS Triage and Destination Plan
- Limit Scene Time ≤ 10 minutes
- Provide Early Notification

Head Injury Protocol
- if indicated
  - Splint Suspected Fractures
  - Consider Pelvic Binding
  - Control External Hemorrhage

Normal Saline Bolus 500 mL IV / IO
- Repeat to effect SBP ≥ 90
- Maximum 2 Liters

Chest Decompression-Needle Procedure
- if indicated

Monitor and Reassess
Multiple Trauma

Pearls
- **Recommended Exam:** Mental Status, Skin, HEENT, Heart, Lung, Abdomen, Extremities, Back, Neuro
- **Items in Red Text** are key performance measures used in the EMS Acute Trauma Care Toolkit
- Transport Destination is chosen based on the EMS System Trauma Plan with EMS pre-arrival notification.
- Scene times should not be delayed for procedures. These should be performed en route when possible.
- Rapid transport of the unstable trauma patient to the appropriate facility is the goal.
- **Bag valve mask** is an acceptable method of managing the airway if pulse oximetry can be maintained ≥ 90%
- Geriatric patients should be evaluated with a high index of suspicion. Often occult injuries are more difficult to recognize and patients can decompensate unexpectedly with little warning.
- Mechanism is the most reliable indicator of serious injury.
- In prolonged extrications or serious trauma, consider air transportation for transport times and the ability to give blood.
- Do not overlook the possibility of associated domestic violence or abuse.