

## Adult - Trauma: CNS Injuries

### BLS / ALS Care:

- Manage airway appropriately.
- Spinal immobilization, if indicated.
- If patient is hypotensive (SBP < 90 mmHg), consider IV bolus of 500mL NS and reassess, may be repeated up to 1 liter NS.
- Elevate head of stretcher at 30 degrees, maintaining spinal immobilization.  
Record
- Glasgow Coma Scale.
- Maintain patient warmth.

### MEDICAL CONTROL CONSULT:

#### Consider:

Solu-Medrol for neurological deficits or parasthesia:

- IV: 30 mg/kg over 15 minutes.
  - May be followed with an infusion if prolonged transport greater than 45 minutes. Infusion is initiated at 5.4 mg/kg/hr.
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- Difficulty breathing or moving? Loss of sensation? Any penetrating trauma in or around spinal cord? Any bruising noted around neck and back?
  - Keep the patient warm unless already hyperthermic.
  - For bradycardia, consider Atropine 0.5-1.0 mg IV
  - For persistent hypotension, consider Dopamine 5-20 mcg/kg/min.

## Adult – Trauma: Crush Injuries

General Comments: Isolated extremity crush injury with entrapment.

### BLS Care:

Assess for the "Six P' s:

- Place (but do not tighten) tourniquet on the entrapped extremity. If this is not possible, have the tourniquet standing by.
  - Tighten only if precipitous hemorrhage occurs.
  - May use tourniquet as prophylaxis on Medical Control or ALS instruction.

Be prepared for significant bleeding and sudden cardiac arrest when patient is freed, especially in prolonged incidents.

### ALS Care:

- IV access with TWO LARGE BORE LINES.
  - IV: 200-500 ml crystalloid solution. Repeat PRN.
  - If the patient has been entrapped for more than 1 hour, fluid therapy 20 ml/kg rapid IV bolus (1 to 2 liters) using normal saline.
  - Use with caution in patients with Hx of CHF.
  - Ongoing fluid therapy 5 ml/kg/hr (300 to 500 ml/hr). Increase as needed for hypotension.
  - Place a tourniquet, consider its use as prophylaxis. Strongly consider sedation and pain management.

*For Crush Injuries of major extremities with active entrapment greater than 2 hours:*

Sodium Bicarbonate.

- IV: 1 mEq/kg IV (minimum 50 mEq for adults) given *IMMEDIATELY PRIOR TO RELEASE FROM ENTRAPMENT.*
- OPTIONAL INFUSION: 50-100-mEq/1000 ml, run at 150 ml/hr, titrated for effect.