

### TREATMENT PROTOCOL

S-139

## **TRAUMA**

ALS

Date: 7/1/2024

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# BLS

- Ensure patent airway
- Protect C-spine
- · Control obvious bleeding
- Spinal motion restriction per Skills List (S-104) except in penetrating trauma without neurological deficits
- O2 saturation. Maintain SpO2 at 94% to 98%
- O2 and/or ventilate at a rate of 10/min PRN
- Keep warm
- Hemostatic gauze

#### Abdominal trauma

• Cover eviscerated bowel with saline pads

#### Chest trauma

- Cover open chest wound with three-sided occlusive dressing. Release dressing if tension pneumothorax develops.
- Chest seal PRN

#### **Extremity trauma**

- Splint neurologically stable fractures in position as presented. Traction splint PRN.
- Reduce grossly angulated long bone fractures with no pulse or sensation PRN
- Direct pressure to control external hemorrhage
- Apply gauze or hemostatic dressing PRN
- Tourniquet PRN
- In MCI, direct pressure not required prior to tourniquet application

# Impaled objects

- Immobilize and leave impaled objects in place
- Remove object impaled in face, cheek, or neck if there is total airway obstruction

# Any suspicion of neurological injury (mechanism, GCS, examination)

- High-flow O<sub>2</sub> PRN
- Monitor SpO<sub>2</sub>, BP, and HR q3-5 min
- If SpO<sub>2</sub> <90% **or** hypoventilation (despite highflow O<sub>2</sub>), assist ventilations with BVM

- Monitor/EKG
- IV/IO <sup>(A)</sup>
- Capnography. Maintain EtCO2 35-45 mmHg PRN
- Treat pain per Pain Management Protocol (S-141)

### SBP <90 mmHg or signs of shock

• 500 mL fluid bolus IV/IO, MR x3 q15 min to maintain SBP ≥90 mmHg <sup>®</sup>

# Trauma-associated hemorrhage <3 hours prior and at least one of the following:

- 1. SBP <90 mmHG
- 2. Shock index ≥1.0 (HR ≥ SBP)
- 3. Uncontrolled external bleeding
- Tranexamic acid 1 gm/10 mL IV/IO, in 50-100 mL NS, over 10 min

# Crush injury requiring extrication with compression of extremity or torso ≥2 hours

Immediately prior to anticipated release

- 1,000 mL fluid bolus IV/IO <sup>®</sup>
- NaHCO<sub>3</sub> 1 mEq/kg IV/IO
- CaCl<sub>2</sub> 500 mg IV/IO over 30 sec, MR x1 in 5 min for continued EKG findings consistent with hyperkalemia
- Continuous albuterol/levalbuterol 6 mL via nebulizer

#### Grossly angulated long bone fractures

Reduce with gentle unidirectional traction for splinting <sup>®</sup>

## Severe respiratory distress with diminished or absent breath sounds (unilaterally or bilaterally), and SBP <90 mmHg, and suspected pneumothorax

Needle thoracostomy

# San Diego County Emergency Medical Services Office Policy / Procedure / Protocol

# Pregnancy ≥6 months

• Where spinal motion restriction indicated, tilt patient to the left 30°

#### Blunt traumatic arrest

 Consider request for pronouncement at scene BHPO per Prehospital Determination of Death Protocol (S-402)

### Penetrating traumatic arrest

- Rapid transport
- Consider pronouncement at scene BHPO

## **Transportation and Destination Guidelines**

Pediatric patients who meet criteria outlined in T-460 (Identification of the Pediatric Trauma Center Patient) should be transported to the Designated Pediatric Trauma Center, **except** in the following situations.

#### 1. Adult with child

- a. If there is a single ambulance (air/ground) with both a pediatric trauma center patient **and** an adult trauma center patient, the ambulance should first transport the more critical patient to the appropriate facility. If both patients are critical, or if there are other questions, both may be transported to the designated adult trauma center.
- b. Field personnel should consider splitting the team using additional ALS transport vehicles, or aeromedical resources to transport the pediatric patient to the pediatric trauma facility and the adult patient to the catchment area trauma facility.

### 2. Trauma center diversion

The pediatric patient who is identified as a trauma patient shall be transported to the designated pediatric trauma center. When the pediatric trauma center is on diversion, including age-specific diversion, the pediatric patient shall be transported to the county-designated backup pediatric trauma center, the University of California. San Diego (UCSD).

#### 3. Pregnant pediatric patient

A pediatric pregnant trauma patient shall be transported to UCSD.

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