

**4301****Shock Due to Trauma****Treatment Protocol**Last Reviewed: **October 4, 2022**Last Revised: **July 1, 2023****BLS Patient Management**

- **Establish, maintain, and ensure cervical spine stabilization, as clinically indicated, when NSAID criteria is met**

- Neuro deficits
- Spinal Tenderness
- Altered Mental Status
- Intoxication
- Distracting Injury

****The long backboard (LBB) is an extrication tool and should only be used to facilitate patient transfer to the stretcher. It is not intended, or appropriate, to use a LBB to achieve or maintain spinal stabilization. Judicious application of the LBB for purposes other than extrication require that the benefits outweigh the risks of application. If the LBB is used, patients should be removed as soon as soon as is safe and practical****

- **Establish, maintain, and ensure**

- A. A patent and easily managed airway. Use manual maneuvers (head-tilt / chin-lift or jaw thrust), oropharyngeal suction and/or airway adjuncts (OPA / NPAs) as clinically indicated
- B. Adequate respirations and tidal volume. Use a mouth-to-mask device or bag valve mask (BVM), when clinically indicated. Rescue ventilations via a BVM require the use of a manometer. Waveform / digital capnography is required when paramedics are present
- C. Controlled bleeding. Use direct pressure and/or pressure dressing(s) and/or tourniquet(s) and/or hemostatic dressing(s), as clinically indicated

- **Oxygen**

As clinically indicated. Titrate to maintain, or increase, SpO₂ to a minimum of 94%. A range of 88-92% is acceptable for patients with a history of COPD

ALS Patient Management

- Interpret and continuously monitor ECG, vital signs and SpO₂
- Establish, maintain, and ensure bilateral, large bore IV and/or IO access for shock due to trauma

Establish IV/IO access during transport of the non-entrapped, transport ready critical trauma patient

Consider the need for additional sites as clinically indicated

- **For shock due to trauma**

Adults: Normal saline 250 mL IV/IO bolus. **MAY REPEAT AS CLINICALLY INDICATED TO A MAX ADMINISTRATION OF 2 L.**

Pediatrics: Normal saline 20 mL / kg IV/IO bolus. Use a volume control administration set for accurate dosing. **MAY REPEAT AS CLINICALLY INDICATED.** For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.

- **For traumatic injuries within three (3) hours with signs and symptoms of hemorrhagic shock with systolic BP less than 90 mmHg**

****OR****

Significant hemorrhage with heart rate greater than or equal to 120

****OR****

Uncontrolled bleeding despite tourniquet application

Adults: Tranexamic Acid (TXA) 1 gm (10 mL) IVPB. Infuse in 50-100 mL normal saline, administer over 10 minutes.

ADMINISTRATION OF TRANEXAMIC ACID (TXA) TO PEDIATRIC PATIENTS IS NOT PERMITTED.

<ul style="list-style-type: none"> • Position the patient supine to meet physiologic requirements: Avoid Trendelenburg or elevating legs for shock. If the patient is pregnant, transport her in left lateral position • Preserve the patient's body heat by covering them with warm blankets • Attach ECG leads to the patient when a paramedic is present • For traumatic arrest Follow REMSA Treatment Protocol #4405 (Cardiac Arrest) 	<ul style="list-style-type: none"> • If the patient presents with Signs and symptoms of tension pneumothorax: <ul style="list-style-type: none"> ○ Air hunger ○ Chest pain ○ Compromised cardiac output (hypotension, hypoxemia, tachycardia, etc.) ○ Elevated hemithorax without respiratory movement ○ Neck vein distension ○ Respiratory distress ○ Unilateral absence of breath sounds ○ Cyanosis (late sign) ○ Tracheal deviation away from the side of the injury (late sign) <p>AND</p> <p>rapidly progressing respiratory distress unrelieved by less invasive means</p> <p>THEN</p> <p>Perform unilateral chest decompression</p> <ul style="list-style-type: none"> • If the patient is in cardiac arrest with known/suspected torso trauma or with a presentation suggesting spontaneous pneumothorax <p>THEN</p> <p>Perform bilateral chest decompression</p>
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Patient Disposition

<ul style="list-style-type: none"> • Ground ambulance is the primary means of transport for destinations 30 minutes or less by code 3. <ul style="list-style-type: none"> a. Adult patients identified as critical trauma patients will be transported to the closest Trauma Center. b. Pediatric patients identified as critical trauma patients should be transported to a pediatric trauma center. c. If the pediatric trauma center is greater than 30 minutes away by ground, go to the closest trauma center. d. If the closest trauma center is greater than 30 minutes by ground code 3, consider HEMS transport. e. If patient destination is questionable, contact the trauma base hospital for destination. f. Refer to REMSA policy #6103 (Ambulance Diversion) when trauma centers are on diversion • Do not delay contacting a trauma base hospital for critical trauma patients • Do not delay transport with nonessential treatment of non-entrapped, transport ready, critical trauma patients

Critical Trauma Patients / Traumatic Arrest Patients

- Adult blunt traumatic arrest:
 - If the patient meets Do Not Attempt Resuscitation / Discontinue Resuscitation criteria: DO NOT TRANSPORT.
 - If the patient is pulseless and apneic with asystole / agonal rhythm / PEA at a rate less than 40: DO NOT TRANSPORT.
 - Otherwise, transport to the closest trauma center.
- Adult penetrating traumatic arrest:
 - If the patient meets Do Not Attempt Resuscitation / Discontinue Resuscitation criteria: DO NOT TRANSPORT.
 - If the patient is pulseless and apneic with asystole / agonal rhythm / PEA at a rate less than 40: DO NOT RESUSCITATE OR TRANSPORT.
 - If the patient has signs of life and transport time is reasonable, then consider transport to the closest trauma center.
- Pediatric traumatic arrest:
 - A base hospital physician order (**BHPO**) is required to discontinue resuscitation.
 - Otherwise, transport to the closest pediatric trauma center
- Burn patients:
 - Critical trauma patients with burns will be transported to the closest trauma center.
 - Patients not meeting critical trauma patient criteria (minor and/or moderate burns) can be cared for at any prehospital receiving center.