Traumatic Arrest

Purpose: The patient in cardiac arrest from a traumatic cause requires rapid assessment and treatment for any chance of meaningful recovery. Standard ACLS is not the optimal approach. Successful resuscitation of the traumatic cardiac arrest patient requires rapid identification and correction of specific entities and rapid transport to an appropriate facility.

1. Indications:
    a. Patients in cardiac arrest from a traumatic source (blunt or penetrating)
2. Contraindications:
    a. Patient that meets DOA criteria, refer to **Dead on Scene/Termination of Resuscitation-Procedure Protocol.**
    b. Suspected traumatic cardiac arrest of more than 10 minutes prior to any interventions, refer to **Dead on Scene Termination of Resuscitation-Procedure Protocol**
    c. If the trauma appears to be minor/minimal and a medical condition appears to be the cause of the cardiac arrest, refer to the appropriate cardiac arrest protocol.
3. Procedures
    a. CPR - high quality CPR needs to be maintained refer to **Adult or Pediatric General Cardiac Arrest-Treatment Protocol**
        i. It is permissible to interrupt CPR briefly for life saving interventions like needle decompression/hemorrhage control.
    b. MEDICATIONS - Prioritize findings and reversing life threatening injuries as standard ACLS medications may not be useful.
    c. AIRWAY - Rapid establishment of an advanced airway with 100% oxygen administration refer to **Airway Management-Procedure Protocol**
    d. CHEST DECOMPRESSION - Refer to **Pleural Decompression-Procedure Protocol**.
        i. Consider bilateral needle decompression in the presence of chest trauma, regardless of findings.
    e. HEMORRHAGE CONTROL - Bleeding control is essential refer to **Bleeding Control (BCON)-Treatment Protocol** and if applicable **Tourniquet Application-Procedure Protocol**.
        i. Penetrating Trauma - Areas not amenable to tourniquet should have a pressure dressing and/or wound packing per **Bleeding Control (BCON)-Procedure Protocol**.
        ii. Blunt Trauma – Place a pelvic binder (commercial or a sheet) on all patients with blunt or blast trauma suffering traumatic arrest. If using a sheet, it should be wrapped around the greater trochanters.

iii. Consider TXA, as available, per **Hemorrhagic Shock-Treatment Protocol**.

f. VOLUME ADMINISTRATION - Rapid vascular access should be obtained. If large bore IV access cannot be rapidly obtained, IO access preferably in the proximal humerus should be obtained **NS** or **LR** rapidly infused. Refer to **Vascular Access & IV Fluid Therapy-Procedure Protocol**
   i. Adults: up to 1 liter
   ii. Pediatrics: up to 20 ml/kg

g. These interventions are not a substitute for rapid transport to an appropriate facility.
   i. If these interventions fail to correct the issues, contact Medical Control for consultation regarding termination of efforts.

4. Termination of efforts should be considered if:
   a. Blunt traumatic arrest in asystole
   b. No signs of life for greater than 10 minutes of intervention
   c. Transport time greater than 15 minutes
   d. Injuries incompatible with life.
5. Continuation of care should be considered with:
   a. Penetrating trauma with signs of life (reactive pupils), PEA with HR greater than 40
   b. ROSC
   c. Hypothermia
   d. Pregnant females with gestational age estimated at greater than 20 weeks.
   e. Patients under 18 years of age.
      i. Transport to the closest appropriate trauma facility per MCA Transport Protocol.
6. Post arrest care:
   a. If pulses are obtained, refer to **Adult or Pediatric Return of Spontaneous Circulation-Treatment Protocol.**
      i. Consider TXA per **Hemorrhagic Shock-Treatment Protocol**