TRAUMATIC CARDIAC ARREST

There are a number of studies that show that attempts at resuscitation of traumatic arrests are futile in certain situations. In these futile situations a patient should be considered dead and there should be no further resuscitation efforts.

All traumatic pulseless non-breathers will undergo full resuscitation efforts unless:
- All trauma with a significant mechanism of injury – If on the first arrival of EMS the patient is pulseless, apneic, and without other signs of life (pupil reactivity, spontaneous movement) or is asystolic, then the patient is not resuscitatable.
- If the injuries are incompatible with life (e.g. Decapitation), the patient is not resuscitatable.

Any patient not meeting one of the above criteria should have attempted resuscitation – Begin CPR. Follow appropriate Cardiac Arrest, PEA/Asystole protocol in addition to protocol below.

If resuscitation has started but it is determined that patient has criteria where additional care is futile, terminate resuscitation if protocol criteria are met (line 10) or contact medical control to determine if resuscitation should be terminated.

- Once determination has been made that the patient is not resuscitatable, law enforcement and the local coroner/medical examiner should be contacted
- The EMS team is not required to stay until the coroner/medical examiner arrives, but should provide law enforcement with:
  - Time of arrival and time resuscitation stopped, if applicable.
  - Names of medical crew (and Medical Control Physician if applicable).
  - Name of your EMS agency/department and business phone number.

**EMERGENCY MEDICAL RESPONDER (EMR) / EMERGENCY MEDICAL TECHNICIAN (EMT)/ ADVANCED EMT (AEMT)/ INTERMEDIATE / PARAMEDIC**

1. Rapid scene and primary survey to find possible cause(s) of arrest.
2. Apply tourniquet(s) ** to any extremity with major bleeding.
3. If MVC and still in vehicle; rapid extrication.
4. Initiate CPR.
5. 100% oxygen/BVM
6. Place an advanced airway** if any difficulty ventilating with BVM.
7. Immobilize spine if indicated
8. Monitor EKG/Place AED

** Tourniquet is an additional skill at the EMR, EMT, AEMT & Intermediate levels requiring additional training approved by the Medical Director and State Approval
** Non-visualized airway is an additional skill at the EMR level requiring additional training approved by the Medical Director and State Approval
9. IF able to get the patient to an emergency hospital within 15 minutes of initial patient assessment or arrest onset, perform Expeditious transport. Transport to the highest-level trauma center within 15 minutes.

10. IF unable to get the patient to an emergency hospital within 15 minutes of initial patient assessment or arrest onset, start resuscitation on scene and only start transport if pulse regained. Terminate resuscitation if no pulse or other signs of life after 15 minutes of resuscitation. Also, if patient develops asystole or pulseless wide complex rhythm less than 30 beats per minutes, terminate resuscitation.

**ADVANCED EMT (AEMT)/ INTERMEDIATE / PARAMEDIC**

11. Start 2 large bore IVs or IO**. Do not delay transport attempting to start IV/IO.

12. If IV/IO established, run normal saline or lactated ringers wide open up to 2 liters

**INTERMEDIATE, PARAMEDIC**

13. If chest trauma present and suspect tension pneumothorax: perform needle pleural decompression. Needle pleural decompression. 2nd-3rd intercostal space (above 3rd or 4th rib), midclavicular line on affected side. If patient does not stabilize, repeat in the 5th or 6th intercostal space, anterior axillary line on the affected side.

14. Treat dysrhythmia according to appropriate Protocol.

**PARAMEDIC**

15. If suspect cardiac tamponade in penetrating trauma: perform needle Pericardiocentesis.

   Equipment: 18-gauge spinal needle, 20-50 ml syringe.
   Landmarks: Insertion site is just below and left of the xiphoid process.
   Technique: Find landmark, insert needle at a 90-degree angle to the skin approximately 1cm. Once under skin, direct needle toward inferior tip of left scapula with plunger of syringe retracted slightly during advancement. Stop advancement when blood return appears, aspirate all freely available blood. Remove needle.
   Other: Monitor any changes in EKG.

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** IO is an additional skill at the AEMT level requiring additional training approved by the Medical Director and State Approval.