Pediatric Traumatic Cardiac Arrest

EMS Medical Director:
Signature on File
EMS Administrator:
Signature on File

DRAFT

Criteria for death/no resuscitation
Review DNR/POLST form

Yes →
- Decomposition
- Rigor mortis
- Dependent lividity

Injury incompatible with life or traumatic arrest with asystole

Do not begin resuscitation

Follow PD# 2033 – Determination of Death

Exit to PD# 2033 – Determination of Death

No ↓

E	Treat immediate threats to life	
	External hemorrhage control per PD# 8065 – Hemorrhage	→ Exit to PD# 8065 – Hemorrhage
	Airway and breathing: Clear airway when indicated, place OPA, BVM ventilations	
	Chest compressions: Chest Compressions should be performed when possible without delaying transport	
A	Optimize oxygenation/ventilation: BVM ventilations is the preferred airway management, Advanced airways as needed per PD# 8837 Advanced airway placement shall be confirmed with ETCO2 detection device or waveform capnography	→ Exit to PD# 8837 Pediatric Airway Management
	Treat potential exsanguination: 20 ml/Kg normal saline bolus via IV/IO, may repeat once parameters for pediatric patients older than one year can be approximated by the following formulas: 90mm HG + (2 x age in years) 70mm HG + (2x age in years) – Lower limit Reassess lung sounds after each bolus	
	Treat Cardiovascular Collapse: High-Quality CPR, ECG monitoring and appropriate defibrillation	
P	Correct potential obstructive shock: consider tension pneumothorax, bilateral needle thoracostomy per PD# 9017 – Pediatric Trauma	→ Exit to PD# 9017 Pediatric Trauma

E	EMT
A	AEMT
P	Paramedic

Notify receiving facility. Contact Base Hospital for medical direction if needed

Pediatric Cardiac Treatment Protocols

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Notes:

- The pathophysiology of traumatic cardiac arrest differs from medical cardiac arrest and is primarily due to one of or a combination of factors: hypovolemia, obstruction of blood flow, and hypoxia.
- The initial cardiac rhythm for most patients in survivable traumatic cardiac arrest is pulseless electrical activity (PEA). Traumatic cardiac arrest PEA is most often a very low output state due to hypovolemia
- Pediatric traumatic cardiac arrest patients undergoing resuscitation shall be transported as quickly as possible to the hospital
- Pediatric patients with trauma in cardiac arrest who by prehospital presentation may have suffered a medical event before trauma shall undergo medical cardiac arrest resuscitation per TP# 9006 – Pediatric Cardiac Arrest, with attention and appropriate management to emergent trauma needs (hemorrhage control, pneumothorax decompression as indicated, and orthopedic immobilization as indicated)
- There is no evidence based medical support for the use of medications in traumatic cardiac arrest. In traumatic arrest, Epinephrine and Amiodarone are **NOT** indicated in traumatic cardiac arrest. Epinephrine will not correct arrest caused by a tension pneumothorax, cardiac tamponade, or hemorrhagic shock. If there is any doubt as to the cause of arrest, treat as a non-traumatic arrest.

Post Resuscitation Considerations:

- A. If palpable pulse becomes present:
- 1. Re-assess for and control external hemorrhage
- 2. To determine if shock is present, assess capillary refill (≤ 2 seconds)
- and brachial and femoral pulses (absent, weak, or present)

Cross References:

PD# 2033 – Determination of Death
PD# 5052 – Trauma Destination
PD# 5053 – Trauma Triage Criteria
PD# 8020 – Respiratory Distress - Airway Management
PD# 8044 – Spinal Motion Restrictions
PD# 8065 – Hemorrhage Control
PD# 8837 – Pediatric Airway Management
PD# 9006 – Pediatric Cardiac Arrest
PD# 9013 – Pediatric Shock
PD# 9016 – Pediatric Parameters
PD# 9017 – Pediatric Trauma

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