

Pediatric Asystole/PEA

For non-traumatic cardiac arrest in which any resuscitation is initiated, NOT dead on arrival

History

- Events leading to arrest
- Estimated downtime
- Past medical history
- Medications
- End stage renal disease
- Suspected hypothermia
- Suspected overdose
 - Tricyclic
 - Digitalis
 - Beta blockers
 - Calcium channel blockers
- DNR, POLST, or Living Will

Signs and Symptoms

- Pulseless
- Apneic or agonal respirations
- No electrical activity on ECG
- No heart tones on auscultation

Differential

- Airway obstruction/respiratory disease
- Hypovolemia (e.g., trauma or other)
- Cardiac tamponade
- Hypothermia
- Drug overdose (e.g., tricyclic, digitalis, beta blockers, or calcium channel blockers)
- Myocardial infarction
- Hypoxia
- Tension pneumothorax
- Pulmonary embolus
- Acidosis
- Hyperkalemia

AT ANY TIME

Return of spontaneous circulation

Go to Post Resuscitation

Cardiac Arrest-Non traumatic

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Begin chest compressions (15:2 ratio)
1.5 inches for infants; 2 inches for children
Change compressors every 2 minutes
(Limit changes/pulse checks to < 5 seconds)

Shockable rhythm?

Reversible Causes

Hypovolemia
Hypoxia
Hydrogen ion (acidosis)
Hypothermia
Hypo/Hyperkalemia
Hypoglycemia
Tension pneumothorax
Tamponade (cardiac)
Toxins
Thrombosis (pulmonary)(PE)
Thrombosis (coronary)(MI)

12 Lead EKG
ETCO₂ documentation
Base Hospital Contact for PEA
Discontinue Resuscitation
Follow Policy 507 – Determining Death

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Establish IV/IO
Epinephrine (1:10,000)
Use length-based tape; refer to dosing guide
Normal Saline Bolus
Use length-based tape; refer to dosing guide
May repeat x2
Search for reversible causes and treat appropriately

Criteria for discontinuation?

Return of spontaneous circulation?

Notify receiving facility.
Consider Base Hospital for medical direction

Post Resuscitation

Pediatric Cardiac Arrest Treatment Protocols

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Pearls

- Airway is a more important intervention in pediatric arrests. This should be accomplished quickly with a BVM, airway adjunct, and appropriately sized mask. Patient survival is often dependent on proper ventilation and oxygenation.
- Efforts should be directed at high quality chest compressions with limited interruptions.
- Use appropriately sized pediatric BVM with EtCO₂.
- Do not delay chest compressions while applying any device or intervention.
- Use a metronome during chest compression to ensure proper rate.
- Provide resuscitative efforts for 30 minutes to maximize chance of ROSC.
- If resuscitative efforts do not attain ROSC, consider cessation of efforts per Policy 507 – Determining Death.
- Resuscitation is based on proper planning and organized execution. Procedures require space and patient access. Make room to work. Utilize a team focused approach assigning responders to predetermined tasks.
- Reassess airway and document EtCO₂ frequently.
- Defibrillation vests should be removed by EMS personnel before compressions, but do not cut vests. Once removed, disengage battery to prevent alarming.
- Pediatric pads should be used in children < 10kg or measurement of Purple.

