

Pediatric Cardiac Arrest

History

- Code status (DNR or POLST)
- Events leading to arrest
- Estimated downtime
- Prior resuscitation attempts
- Past medical history
- Medications
- Existence of terminal illness
- Suspected physical abuse

Signs and Symptoms

- Unresponsive
- Apneic
- Pulseless

Differential

- Respiratory failure (foreign body, secretions, infection)
- Hypovolemia (dehydration)
- Congenital heart disease
- Trauma
- Hypothermia
- Tension pneumothorax, cardiac tamponade, or PE
- Toxin or medication
- Electrolyte abnormalities (glucose, potassium)
- Acidosis

AT ANY TIME
Return of spontaneous circulation

Go to Post Resuscitation TG

Decomposition
Rigor mortis
Dependent lividity

Injury incompatible with life or traumatic arrest with asystole

Do not begin resuscitation

Follow Policy 1004 – Determination of Death


Criteria for death/no resuscitation
Review DNR/POLST form

E

Newly born <31 days old
Begin chest compressions
Use 3:1

Begin chest compressions
Children 1 month to 8 years, use 15:2
Children over 8 years, use 30:2

Push hard (1.5 inches Infant / 2 inches Children) and fast (100-120/min)
Use metronome to ensure proper rate
Change compressors every 2 minutes
(Limit changes/pulse checks to < 5 seconds)

 Exit to Newly Born TG

ALS available?

E Apply AED if available

Shockable rhythm?

E Continue CPR
5 cycles over 2 minutes
Repeat and assess


E Automated defibrillation
Continue CPR
5 cycles over 2 minutes
Repeat and assess


E Basic airway procedure

**Notify receiving facility.
Contact Base Hospital for medical direction, as needed.**

P Cardiac monitor
EtCO₂ monitoring

Shockable rhythm?

No
Follow Pediatric Asystole/PEA and Airway TGs as indicated


Yes
Follow Pediatric VF/VT Pediatric Tachycardia and Airway TGs as indicated


Pediatric Treatment Guidelines



Pediatric Cardiac Arrest

Pearls

- Efforts should be directed at high quality chest compressions with limited interruptions and early defibrillation when indicated. Compress 1.5 inches in infants and 2 inches in children. Consider early IO placement if available or direct IV access if anticipated.
- DO NOT HYPERVENTILATE.
- Do not delay chest compressions while applying any device or intervention.
- In cases of clear-cut traumatic arrest, epinephrine is not indicated in PEA or asystole. 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.
- Use a metronome during chest compression to ensure proper rate.
- Airway is a more important intervention in pediatric arrests. This should be accomplished quickly with a BVM and appropriately sized mask. Patient survival is often dependent on proper ventilation and oxygenation.
- Resuscitation is based on proper planning and organized execution. Procedures require space and patient access. Make room to work. Utilize team focused approach assigning responders to predetermined tasks.
- Prevent hypothermia by moving to a warm environment and avoid unnecessary exposure.

