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

**Criteria for death/no resuscitation**
- Review DNR/POLST form
- No

**AT ANY TIME**
- Return of spontaneous circulation
- Go to Post Resuscitation TG

**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)

**ALS available?**
- Yes
- No

**Apply AED if available**

**Shockable rhythm?**
- Yes
- No

**Continue CPR**
- 5 cycles over 2 minutes
- Repeat and assess

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

**Basic airway procedure**

**Notify receiving facility. Contact Base Hospital for medical direction**

**Yes**
- Cardiac monitor
- EtCO₂ monitoring

**Shockable rhythm?**
- Yes
- No

**Follow Pediatric Asystole/PEA and Airway TGs as indicated**

**Follow Pediatric VF/VT, Pediatric Tachycardia and Airway TGs as indicated**

**Decomposition**
- Rigor mortis
- Dependent lividity
- Injury incompatible with life or traumatic arrest with asystole
- Do not begin resuscitation
- Follow Policy 1004 – Determination of Death
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.