Pediatric Cardiac Arrest

History
- Code status (DNR or POLST)
- Events leading to arrest
- Estimated downtime
- History of current illness
- Past medical history
- Medications
- Existence of terminal illness

Signs and Symptoms
- Unresponsive
- Apneic
- Pulseless

Differential
- Airway obstruction/respiratory disease
- Medical vs. trauma
- VF vs. pulseless VT
- Asystole
- PEA
- Primary cardiac event vs. respiratory arrest or drug overdose

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

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

Suspected traumatic arrest?
- Yes
  - Traumatic Arrest
- No

Obvious Death
- Decomposition
  - Rigor mortis
  - Do not begin resuscitation
  - Follow Operations 10 – Determination of Death

Obvious Death

Decomposition
- Rigor mortis
  - Do not begin resuscitation
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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)

ALS available?
- Yes
- No

Cardiac monitor
- EtCO₂ monitoring

Shockable rhythm?
- Yes
  - VF/VT if indicated
  - Asystole/PEA if indicated
  - Continue CPR
    - 2 minutes
    - Repeat and assess
  - Automated defibrillation
    - Continue CPR
      - 2 minutes
      - Repeat and assess
  - Return of spontaneous circulation?
    - Yes
    - Post Resuscitation
    - Notify receiving facility.
    - Consider Base Hospital for medical direction

Suspected traumatic arrest?
- Yes
- Traumatic Arrest
- No
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 Operations 10 – Determination of 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.