Contra Costa County Emergency Medical Services

Pediatric V-Fib/Pulseless V-Tach

History
- Events leading to arrest
- Estimated downtime
- Past medical history
- Medications
- Existence of terminal illness
- Airway obstruction
- Hypothermia

Signs and Symptoms
- Apneic
- Pulseless

Differential
- Respiratory failure/airway obstruction
- Hyper/hypokalemia
- Hypovolemia
- Hypothermia
- Hypoglycemia
- Acidosis
- Tension pneumothorax
- Tamponade
- Toxin or medication
- Thrombosis: Coronary or Pulmonary Embolism
- Congenital heart disease

**AT ANY TIME**
Return of spontaneous circulation

Go to Post Resuscitation TG

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Pediatric Cardiac Arrest TG

Defibrillation
- Use Pediatape and refer to dosing guide

Resume chest compressions
- Change compressors every 2 minutes
- (Limit changes/pulses checks < 5 seconds)

Establish IO/IV

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Defibrillation
- Use Pediatape and refer to dosing guide

Resume chest compressions
- Change compressors every 2 minutes
- (Limit changes/pulses checks < 5 seconds)

Epinephrine (1:10,000) IO / IV
- Repeat every 3 to 5 minutes
- Use Pediatape and refer to dosing guide

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Defibrillation
- Use Pediatape and refer to dosing guide

Resume chest compressions
- Change compressors every 2 minutes
- (Limit changes/pulses checks < 5 seconds)

If V-Fib/ Pulseless V-Tach is refractory after 3 shocks
- Continue aggressive CPR and give medications during compressions

Amiodarone IO / IV
- Use Pediatape and refer to dosing guide
  - Maximum 300mg

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Return of spontaneous circulation?

Chain of Command
- Notify receiving facility.
- Contact Base Hospital for medical direction, as needed.

Exit to Post Resuscitation TG
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.**
- 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. Patient survival is often dependent on proper ventilation and oxygenation with airway intervention.
- In order to be successful in pediatric arrests, a cause must be identified and corrected.
- Respiratory arrest is a common cause of cardiac arrest. Unlike adults, early ventilation intervention is critical.
- In most cases, pediatric airways can be managed by basic intervention with a BVM.
- Reassess and document ETT placement (patients above 40kg) and EtCO₂ frequently, after every move, and at transfer of care.
- **Do not stop chest compressions** to check for placement of ETT or to give medications.