

Regional Protocol Update

- The Pediatric Asystole/Pulseless Electrical Activity (PEA) protocol has been updated. This protocol reflects changes that reflect the changes within the General Cardiac Arrest Protocol, and focuses on the causes. You will also note that this is now a combined protocol with PEA.

Pediatric Asystole/PEA

During CPR, consider reversible causes of Asystole/PEA and treat as indicated. Causes and efforts to correct them include:

- a. Hypovolemia – fluid bolus
- b. Hypoxia – reassess airway and ventilate with high flow oxygen
- c. Tension pneumothorax – pleural decompression
- d. Hypothermia – warming
- e. Hyperkalemia

Pre-Radio

PARAMEDIC

1. Follow the General Cardiac Arrest Protocol.
2. Administer Epinephrine 1:10,000, 0.01 mg/kg (0.1 ml/kg) IV/IO, or Epinephrine 1:1000, 0.1 mg/kg (0.1 ml/kg) **via ET if IV/IO unavailable. Repeat every 3-5 minutes.**
3. **If renal failure is suspected, administer Sodium Bicarbonate 1 mEq/kg IV/IO.**
4. **Continue CPR for two minutes and reassess rhythm.**

Regional Protocol Update

- The Pediatric Bradycardia Protocol has been updated. The following slides will summarize the changes, then continue to the updated protocol.

Summary of Changes

- Added:

If symptomatic bradycardia persists....

Consider cardiac pacing.

If cardiac arrest develops, or the rhythm changes, go to the appropriate protocol.

Increased maximum individual Atropine dose to 1.0 mg....to a total dose of 3 mg.

Pediatric Bradycardia

Note: Bradycardia should be considered to be due to hypoxia until proven otherwise. For bradycardia with a pulse that causes cardiorespiratory compromise:

Pre-Radio

MFR/EMT/SPECIALIST/PARAMEDIC

1. Follow the General Pre-Hospital Care Protocol and apply high flow oxygen.
2. Perform CPR if, despite oxygenation and ventilation, HR < 60/min with poor perfusion.

PARAMEDIC

3. **If symptomatic bradycardia persists**, administer Epinephrine 1:10,000, 0.01 mg/kg (0.1 ml/kg) IV/IO, or Epinephrine 1:1000, 0.1 mg/kg (0.1 ml/kg) via ET if IV/IO unavailable, repeat every 3-5 minutes.
4. Administer Atropine Sulfate 0.02 mg/kg IV (minimum dose 0.1 mg). Maximum individual dose for children is **1 mg**. Repeat every 3-5 minutes **to a total dose of 3 mg**.
5. Consider cardiac pacing.
6. **If cardiac arrest develops, or the rhythm changes, go to the appropriate protocol.**
7. Contact Medical Control.

Regional Protocol Update

- The Pediatric Cardiac Arrest Protocol has been deleted. The General Cardiac Arrest Protocols, adjusting for the pediatric where indicated (ie: drugs, airway management, etc.), are to be followed.

Regional Protocol Update

The Pediatric Narrow Complex Tachycardia Protocol has been updated. Due to the extent of changes, the following slides in their entirety will summarize the changes.

- Added

Fentanyl for sedation

- Removed

Valium removed for sedation

Pediatric Narrow Complex Tachycardia

Pre-Radio

PARAMEDIC

1. Follow the General Pre-Hospital Care Protocol.
2. If time and condition allow, administer Fentanyl 1 mcg/kg IV prior to cardioversion.
3. If patient is unstable, as evidenced by either altered level of consciousness or hypotension, or IV access is not readily available consider cardioversion using 0.5 – 1 joules/kg*. Repeat using 2 joules/kg, as indicated.
4. If infant rate is less than 220 bpm or child rate is less than 180 bpm consider sinus tachycardia. Treat with IV fluids, do not cardiovert or give adenosine if sinus tachycardia.

5. If history of abrupt rate change, infant rate greater than 220 bpm or child rate greater than 180 bpm consider supraventricular tachycardia.

6. If IV access is readily available: administer Adenosine 0.1mg/kg IV (maximum first dose 6 mg) rapid IV bolus. If not effective, administer Adenosine 0.2mg/kg IV (maximum second dose 12 mg) rapid IV bolus. May repeat Adenosine 0.2mg/kg IV (maximum dose 12 mg) rapid IV bolus once if needed.

*If calculated energy is less than the lowest available setting use the lowest available setting.

Regional Protocol Update

- The Pediatric Ventricular Fibrillation or Pulseless Ventricular Tachycardia protocol has been updated. This protocol reflects changes that reflect the changes within the General Cardiac Arrest Protocol. Therefore, the changes will be highlighted in **yellow** text to show these changes.
- All Lidocaine has been removed totally.
- Sodium bicarbonate removed from algorithm.

Pediatric Ventricular Fibrillation or Pulseless Ventricular Tachycardia

Pre-Radio

PARAMEDIC

1. Follow the General Cardiac Arrest protocol.
2. Defibrillate at 2 joules/kg*.

Continue CPR for 2 minutes and reassess rhythm.

3. Defibrillate at 4 joules/kg,

Continue CPR for 2 minutes and reassess rhythm.

4. Administer Epinephrine 0.01 mg/kg 1:10,000 (0.1 ml/kg) IV/IO, or Epinephrine 1:1000, 0.1 mg/kg (0.1 ml/kg) via ET if IV/IO unavailable. Repeat every 3-5 minutes. May be administered before or after defibrillation.

Continue CPR for 2 minutes and reassess rhythm.

5. Defibrillate at 4 joules/kg.

6. Administer Amiodarone 5 mg/kg IV/IO (maximum 300 mg). Amiodarone may be repeated up to 15 mg/kg or 300 mg maximum total dose. May be administered before or after defibrillation.

7. Administer magnesium 50 mg/kg IV/IO, maximum 2 g for torsades de pointes.

Continue CPR for 2 minutes and reassess rhythm.

8. Defibrillate at 4 joules/kg. Repeat defibrillation as indicated.

*

If calculated energy is less than the lowest available setting use the lowest available setting.

Regional Protocol Update

- The Pediatric Wide Complex Tachycardia Protocol has been updated. Due to the extent of changes, the following slides in their entirety will summarize the changes.
- Added
Fentanyl for sedation.
Repeat cardioversion.
Administer Amioderone.
- Removed
Lidocaine from all algorithms.
Valium removed for sedation.

Pediatric Wide Complex Tachycardia

Pre-Radio

PARAMEDIC

1. Follow the General Pre-Hospital Care Protocol.
2. If patient is pulseless, treat as Ventricular Fibrillation/Pulseless Ventricular Tachycardia .
3. If patient is stable, monitor the patient for changes in rhythm or vital signs.
4. **If time and condition allow, administer Fentanyl 1 mcg/kg IV prior to cardioversion.**
5. If patient is unstable or becomes unstable, as evidenced by altered consciousness or hypotension, use synchronized cardioversion at 0.5 – 1 joule/kg.* If unsuccessful, **repeat cardioversion at 2 joule/kg.**

Post-Radio

PARAMEDIC

6. Administer Amiodarone 5mg/kg (maximum 150mg) IV over 20 to 60 minutes.

*If calculated energy is less than the lowest available setting use the lowest available setting.