

# PEDIATRIC MEDICAL CARDIAC ARREST

DRAFT



**See appendix A below for medications, electrical dosages, and special notes**



Assess patient by history and exam

Neonate (defined as < 28 days)?  
Adult (defined as onset of puberty)?

**Neonatal Resuscitation**  
**Adult Medical Cardiac Arrest**

**Start High Quality CPR (15:2)**

- BVM ventilations with high flow oxygen and appropriate BLS airway adjunct
- Apply AED/Defibrillator

**Rhythm Shockable?**

**YES** → VF/pVT

**NO** → Asystole/PEA

**Give Epinephrine ASAP**

**Resume CPR for 2 minutes**

- Start IV/IO
- Consider advanced airway with capnography

**1 Resume CPR for 2 minutes**

- Start IV/IO
- Epinephrine** q 3-5 minutes
- Consider advanced airway with capnography

**Rhythm Shockable?**

**NO** → Go to 1

**Rhythm Shockable?**

**YES** → Go to 2

**2 YES**

**Resume CPR for 2 minutes**

- Epinephrine** q 3-5 minutes
- Treat reversible causes

**CPR for 2 minutes**

- Treat reversible causes

**Rhythm Shockable?**

**NO** → Go to 1

**Rhythm Shockable?**

**YES** → Go to 2

**Resume CPR for 2 minutes**

- Amiodarone**
- Treat reversible causes



At any point during resuscitation efforts, patient regains pulses → **Adult and Pediatric ROSC** → Transport to Critical Pediatric Center (5000.1)

For discontinuing resuscitation efforts (see **Policy 4049**) →

## APPENDIX A

### High Quality CPR

- Push hard (  $\geq 1/3$  diameter of chest depth)
- Push fast: 100-120/min
- Allow full chest recoil
- Minimize interruptions in compressions
- Change compressor every 2 min, sooner if fatigued
- If no advanced airway compression-ventilation ratio: 15:2 for 2 rescuers, 30:2 for 1 rescuer
- If advanced airway, provide continuous compressions and give a breath every 2-3 seconds and monitor EtCO<sub>2</sub>

### Medications & Shock Energy Selection

- **Epinephrine**
- **Amiodarone**
- **Lidocaine** (only to be used in the event of Amiodarone shortage)
- 1st shock 2 J/kg
- 2nd shock 4 J/kg
- 3rd shock 6 J/kg
- 4th shock 8 J/kg
- 5<sup>th</sup> shock 10 J/kg

### Reversible causes

**Hypovolemia:** Give **Normal Saline** bolus. If secondary to blood loss, early transport

**Hypoxia:** BVM with high flow oxygen

**Hydrogen Ion:** Adequate ventilation to blow off CO<sub>2</sub>

**Hypoglycemia:** Check blood glucose and treat (**Altered Mental Status**)

**Hypothermia:** Re-warm

**Hyperkalemia:** Give **Calcium Chloride**. Consider **Sodium Bicarbonate** after Calcium Chloride. Consider **Albuterol** via BVM

**Tamponade (cardiac) or Thrombosis, pulmonary or cardiac:** Early transport

**Tension Pneumothorax:** **Needle Thoracotomy**

**Torsades de Pointes:** After defibrillation give **Magnesium Sulfate**

**Toxins:**

-- TCA OD (widening QRS): **Sodium Bicarbonate**

-- Calcium channel OD: **Calcium Chloride**

-- Opioid OD: give **Naloxone**

### Policy references

- **Policy 4049 Discontinuing Resuscitative Efforts**
- **Policy 4050 Death Pronouncement**
- **Policy 4051 Do Not Resuscitate & Physician Orders for Life-Sustaining Treatment**