PEDIATRIC CARDIAC ARREST

Cardiac arrest in infants and children is rarely a primary event. It is usually a result of deterioration of respiratory function resulting in decreased cardiac function. Cardiac arrest can be prevented if the symptoms of respiratory failure and/or shock are recognized and quickly treated.

A. **Ventricular Fibrillation/Pulseless V-tach:**

1. Perform **Initial Treatment / Universal Patient Care Protocol** and follow the proper protocol for medical management based on clinical presentation.

   a. Immediate defibrillation in witnessed arrest.

   b. Administer **Epinephrine** 1:10,000, 0.01 mg/kg IV/IO every 3 - 5 minutes (tracheal tube 0.1 mg/kg, 1:1000).

   c. Confirm effectiveness of CPR during resuscitative effort.

2. Defibrillate at 2 joules/kg.

3. If no conversion after two (2) minutes of CPR:

   a. Defibrillate at 4 joules/kg and repeat two (2) minutes of CPR.

   b. If no conversion, defibrillate again at 4 joules/kg.

   c. If no conversion, establish airway and IV/IO access and administer **Epinephrine** (1:10,000) 0.01 mg/kg IV/IO, or **Epinephrine** (1:1000) 0.1 mg/kg down ET tube.

   d. If no conversion, within 30 - 60 seconds defibrillate at 4 joules/kg.

   e. If no conversion, continue **Epinephrine** every 3 - 5 minutes and administer **Lidocaine** 1 mg/kg IV/IO or **Amiodarone** 5 mg/kg IV/IO.

   f. If no conversion, defibrillate again at 4 joules/kg.

   g. If no conversion, repeat **Lidocaine** 1 mg/kg IV/IO or **Amiodarone** 5 mg/kg IV/IO.

   h. If no conversion, defibrillate at 4 joules/kg.

   i. If no conversion, continue to alternate drug therapy with defibrillation and

contact **Medical Command**.

j. Transport.

4. If conversion occurs:

a. Follow **ROSC Protocol 4214.**

b. Notify **Medical Command** and transport.

B. **Asystole:**

1. Perform **Initial Treatment / Universal Patient Care Protocol** and follow the proper protocol for medical management based on clinical presentation.

2. Confirm true asystole:

a. Check lead and cable connections.

b. Check monitor power is “on” and gain is “up.”

c. Verify asystole in at least two (2) leads.

3. Administer **Epinephrine** (1:10,000) 0.01 mg/kg IV/IO, or **Epinephrine** (1:1000) 0.1 mg/kg down ET tube. Repeat every 3 - 5 minutes.

4. Notify **Medical Command** and transport.

5. Search for and treat reversible causes.

6. Further treatment as **ordered by MCP**. 

7. If conversion occurs:

a. Follow **ROSC Protocol 4214.**

b. Notify **Medical Command** and transport.

C. **PEA (Pulseless Electrical Activity):**

1. Perform **Initial Treatment / Universal Patient Care Protocol** and follow the proper protocol for medical management based on clinical presentation.

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2. Review potentially reversible causes.

3. Administer **Epinephrine** (1:10,000) 0.01 mg/kg IV/IO, or **Epinephrine** (1:1000) 0.1 mg/kg down ET tube. Repeat every 3 to 5 minutes.

4. Notify **Medical Command** and transport.

5. If conversion occurs:

   a. Follow ROSC Protocol 4214.

   b. Further treatment as **ordered by MCP**.