



EMT-Paramedic Treatment Protocol 4406

Pediatric Emergencies Cardiac Arrest

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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.

Ventricular Fibrillation/Pulseless V-tach:

- A. Perform **CAT Protocol 4204** with the following special notes for pediatric patients:
1. If unable to establish IV, then establish IO.
 2. Epinephrine 1:10,000, 0.01 mg/kg IV or IO every 3-5 minutes (tracheal tube 0.1 mg/kg, 1:1000).
 3. Immediate defibrillation in witnessed arrest.
 4. Confirm effectiveness of CPR during resuscitative effort.
- B. Defibrillate at 2 joules/kg.
- C. If no conversion:
1. Defibrillate at 4 joules/kg.
 2. If no conversion, defibrillate again at 4 joules/kg.
 3. If no conversion, establish airway and IV/IO access per **CAT**, and administer epinephrine (1:10,000) 0.01 mg/kg IV or IO, or epinephrine (1:1000) 0.1 mg/kg down ET tube.
 4. If no conversion, within 30-60 seconds defibrillate at 4 joules/kg.
 5. If no conversion, continue epinephrine every 3 to 5 minutes and administer lidocaine 1 mg/kg IV or IO or down ET tube.



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6. If no conversion, defibrillate again at 4 joules/kg.
 7. If no conversion, repeat lidocaine 1 mg/kg IV or IO or down ET tube.
 8. If no conversion, defibrillate at 4 joules/kg.
 9. If no conversion, continue to alternate drug therapy with defibrillation and contact Medical Command.
 10. Transport.
- D. If conversion occurs:
1. Monitor vital signs and treat new rhythm per appropriate protocol.
 2. Notify Medical Command and transport.

Asystole:

- A. Perform **CAT** with special notes as above.
- B. Confirm true asystole:
 1. Check lead and cable connections.
 2. Check monitor power is "on" and gain is "up".
 3. Verify asystole in at least 2 leads.
- C. Administer epinephrine (1:10,000) 0.01 mg/kg IV or IO, or epinephrine (1:1000) 0.1 mg/kg down ET tube. Repeat every 3 to 5 minutes.
- D. Notify Medical Command and transport.



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E. Search for and treat reversible causes as outlined in **MAMP Protocol 4201-F**.

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



G. If conversion occurs:

1. Monitor vital signs and treat new rhythm per appropriate protocol.
2. Notify Medical Command and transport.

PEA (Pulseless Electrical Activity):

- A. Perform **CAT** with special notes as above.
- B. Review potentially reversible causes as outlined in **MAMP Protocol 4201-F**.
- C. Administer epinephrine (1:10,000) 0.01 mg/kg IV or IO, or epinephrine (1:1000) 0.1 mg/kg down ET tube. Repeat every 3 to 5 minutes.
- D. Notify Medical Command and transport.

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



F. If conversion occurs:

1. Monitor vital signs and treat new rhythm per appropriate protocol.
2. Notify Medical Command and transport.