

**SAGINAW VALLEY  
MEDICAL CONTROL AUTHORITY  
PRACTICE PARAMETER**

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**PEDIATRIC PULSELESS ELECTRICAL ACTIVITY (PEA)**

**I. Assessment Information**

- A. Consider differential diagnosis(possible treatments per appropriate protocol):
  - 1. Hypoxia (ventilation)
  - 2. Hypovolemia (volume infusion)
  - 3. Tension pneumothorax (needle decompression)
  - 4. Pericardial tamponade
  - 5. Myocardial rupture
  - 6. Acidosis (ventilation, consider Bicarb)
  - 7. Pulmonary embolism
  - 8. Drug overdose
  - 9. Hypothermia

**FIRST RESPONDER**

**II. Management- You may not know it is PEA. Treat as cardiac arrest.**

- A. Initiate CPR, if no signs of perfusion/circulation.
- B. Evaluate and maintain airway, provide oxygen and support ventilations as needed.
- C. Assess circulation and perfusion by measuring heart rate and observing skin color and temperature, capillary refill time, and the quality of central and peripheral pulses. Blood pressure should be measured in children older than three.

**BASIC LIFE SUPPORT**

- D. Arrange for ALS intercept
- E. Initiate transport toward ALS intercept, if a transporting unit.
- F. Reassess airway and oxygenation status.

**NOTIFY RECEIVING FACILITY**

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**ADVANCED LIFE SUPPORT**

- G. Intubate<sup>1</sup>
- H. Monitor **EKG**
- I. **IV/IO NORMAL SALINE @ TKO**
  - 1. If intravenous access cannot be obtained in a child less than 6 years of age, in three attempts or 90 seconds has elapsed, proceed with intraosseous access.
- J. Administer **FLUID BOLUS of 20CC/KG IV/IO.**<sup>2</sup>
- K. **EPINEPHRINE**<sup>2</sup>
  - 1. **IV/IO=0.01 MG/KG of 1:10,000(10ml) IVP q 3-5min**<sup>3</sup>
    - a. Flush the medication port with 10 to 20 ml of intravenous fluid following each IV medication administration to aid entry of drugs into central circulation.

**CONTACT MEDICAL CONTROL**

- L. Possible orders post radio contact:
  - 1. Additional **VOLUME INFUSION**
  - 2. Administer additional **EPINEPHRINE** as ordered.

<sup>1</sup> If tension pneumothorax is suspected, reassess ETT placement, consider pleural decompression, contact Medical Control immediately.

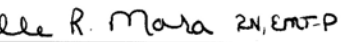
<sup>2</sup> Consider administering bolus via syringe.

<sup>2</sup> Maybe given either IV, IO or endotracheal. When given endotracheal, chest compressions should be stopped. The drug solution should be sprayed quickly down the endotracheal tube and several quick insufflations should be given to aerosolize the medication and hasten absorption. Epinephrine may be repeated by doses identified above.

<sup>3</sup> If IV/IO access is unsuccessful, **ENDOTRACHEAL= 0.1 MG/KG of 1:1000 (use multidose vial with 1mg/cc concentration)**. If vascular access is obtained after giving an initial dose of epinephrine via endotracheal tube, give the second dose intravenously 3 to 5 minutes after the endotracheal dose.

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