NON-TRAUMATIC CARDIOPULMONARY ARREST – PEDIATRIC

BASE GUIDELINES

Ventricular Fibrillation (VF)
OR
Pulseless Ventricular Tachycardia (VT)

1. Determine ALS Standing Order treatments/procedures rendered prior to base hospital contact. Use ALS standing order as guidelines for treatment or procedures not initiated prior to Base Hospital/CCERC contact.

2. If at any time patient develops a rhythm with a pulse/return of spontaneous circulation (ROSC), patient should be routed to the nearest open CCERC or ERC.

3. For return of spontaneous circulation (ROSC) with palpable brachial artery pulses:
   ▶ If NO signs of congestive heart failure (lungs clear to auscultation), consider administering 20 mL/kg Normal Saline bolus

4. If child has known congenital heart disease or previous heart surgery, the best destination is a CCERC.

5. Generally, it is not advisable to pronounce a pediatric patient in the field. The usual standard is to transport with CPR in progress.

### V-Fib or Pulseless V-Tach

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
<th>Route</th>
<th>Max Single Dose</th>
<th>Max Total Dose</th>
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</thead>
<tbody>
<tr>
<td>Defibrillation</td>
<td>2-4 J/kg</td>
<td></td>
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<tr>
<td>Epinephrine</td>
<td>0.01 mg/kg</td>
<td>IV/O</td>
<td>1 mg</td>
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<td>[0.1 mg/mL conc]</td>
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<td></td>
<td>Every 3 minutes</td>
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<tr>
<td>Amiodarone</td>
<td>5 mg/kg</td>
<td>IV/O</td>
<td>300 mg</td>
<td>450 mg</td>
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<tr>
<td>Normal Saline</td>
<td>20 mL/kg</td>
<td>IV/O</td>
<td>250 mL</td>
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</tbody>
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ALS STANDING ORDER

ALS STANDING ORDERS: Make base hospital contact (CCERC pediatric base preferred) as soon as possible per OCEMS Policy #310.00.

Ventricular Fibrillation (VF)
OR
Pulseless Ventricular Tachycardia (VT)

1. Initiate or continue CPR and when defibrillator available:
   ▶ Defibrillate once at 4 J/kg biphasic setting (or pre-programmed manufacture’s recommended defibrillator setting)

2. If at any time develops rhythm with pulse:
   • Ventilate and oxygenate
   • Assess for and correct hypoxia or hypovolemia
   • ALS escort as directed by Base Hospital (CCERC pediatric base preferred)

3. If remains pulseless:
   → Maintain CPR approximately 2 minutes
   ▶ High-flow oxygen by BVM
   → IV/IO vascular access without interruption of CPR

4. Continually monitor cardiac rhythm:
   → If persistent VF/pulseless VT
   ▶ Defibrillate once at 4 J/kg biphasic setting (or pre-programmed/manufacturer’s recommended defibrillator setting)
   → If PEA or asystole: refer to PEA/Asystole section.

5. For continued VF/pulseless VT or if rhythm reverts back to VF/pulseless VT:
   → Maintain CPR
   ▶ Administer Epinephrine 0.01 mg/kg IV/O [0.1 mg/mL preparation], repeat approximately every 3 minutes for continued VF/pulseless VT

Approved:  

Reviewed: 12/2006; 9/2019
Final Date for Implementation: 04/01/2020
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### BASE GUIDELINES

### ALS STANDING ORDER

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<tbody>
<tr>
<td>6. For continued VF/pulseless VT:</td>
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<td></td>
<td>→ Maintain CPR</td>
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<td>7. For continued VF/pulseless VT:</td>
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<td>→ Maintain CPR</td>
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<td>8. After approximately 2 minutes of CPR, if there is continued VF/pulseless VT:</td>
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<td>9. For continued VF/VT:</td>
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<td>→ Maintain CPR and request Base Hospital provide:</td>
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Approved: Carl Schultz, MD
**BASE GUIDELINES**

**Pulseless Electrical Activity (PEA)**

**OR**

**Asystole**

1. Determine ALS Standing Order treatments/procedures provided prior to base hospital contact. Use ALS standing order as guidelines for treatment or procedures not initiated prior to base hospital/CCERC contact.

2. If at any time patient develops a rhythm with a pulse/return of spontaneous circulation (ROSC), patient should be routed to the nearest open CCERC or ERC.

3. As soon as possible, remind field personnel to assess for reversible causes for arrest:
   - Hypovolemia
   - Acidosis
   - Hypoxia
   - Tension pneumothorax
   - Hypothermia
   - Toxins

4. For return of spontaneous circulation (ROSC) with palpable brachial artery pulses:
   - If NO signs of congestive heart failure (lungs clear to auscultation), consider administering **20 mL/kg Normal Saline bolus**.

5. Remind field personal to maintain an open airway, assure ventilation and avoid over-inflation of lungs or aggressive ventilation that may expand stomach with air.

6. Suggest to field personnel to review scene for evidence of possible poisoning or toxic exposure.

7. If child has immediate history of vomiting or diarrhea, concentrate field on fluid resuscitation.

8. Generally, it is not advisable to pronounce a pediatric patient in the field. The usual standard is to transport with CPR in progress.

**ALS STANDING ORDER**

**Pulseless Electrical Activity (PEA)**

**OR**

**Asystole**

1. Initiate or maintain CPR without interruption unless pulses obtained by any step below
   - **High-flow oxygen by BVM**

2. Continually monitor cardiac rhythm:
   - Maintain CPR
   - LV/IO vascular access
   - **20 mL/kg Normal Saline bolus**

3. **PEA**
   - **Asystole**
   - **Administer Epinephrine 0.01 mg/kg IV/IO** (0.1 mg/mL preparation) approximately every 3 minutes until pulse attained
   - Correct possible reversible causes:
     - Hypovolemia
     - Acidosis
     - Hypoxia
     - Tension pneumothorax
     - Hypothermia
     - Toxins
     - If diabetic and hypoglycemia suspected, administer:
       - **Dextrose 10% 5 mL/kg IV/IO** (maximum dose 250 mL)

4. If VF/pulseless VT develops:
   - **Defibrillate once at 4 J/kg** biphasic setting (or pre-programmed/manufacturer’s recommended defibrillator setting) and follow VF/pulseless VT algorithm
### BASE GUIDELINES

**Pulseless Electrical Activity (PEA) or Asystole**

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### ALS STANDING ORDER

5. If at any time a rhythm with pulse develops (ROSC):
   - Ventilate and oxygenate
   - Assess for and correct hypoxia, hypovolemia, hypoglycemia, or hypothermia
   - ALS escort as directed by Base Hospital (CCERC pediatric base preferred)

6. For continued PEA or asystole:
   - Maintain CPR and request Base Hospital provide:
     - Further resuscitation orders and destination decision