PULSELESS CARDIAC ARREST (ATRAUMATIC)

<table>
<thead>
<tr>
<th>ADULT</th>
<th>PEDIATRIC (≤34 kg)</th>
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<td><strong>BLS</strong></td>
<td><strong>Same as Adult (except for neonate)</strong></td>
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<tr>
<td>• Universal Protocol #601</td>
<td>• Neonate (&lt; 1 month) follow AHA guidelines</td>
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<tr>
<td>• High Performance CPR (HPCPR) (10:1) per Procedure #712</td>
<td>• CPR compression to ventilation ratio</td>
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<td>o Continuous compressions with 1 short breath every 10</td>
<td>o Newborn – CPR 3:1</td>
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<td>• AED application (if shock advised, administer 30 compressions prior to shocking)</td>
<td>o 1 day to 1 month – CPR 15:2</td>
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<td>o &gt; 1 month – HPCPR 10:1</td>
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<td>• AED – pediatric patient &gt; 1 year</td>
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<td>• Use Broselow tape or equivalent if available</td>
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**BLS Optional**

Pulse Oximetry – O₂ administered per Airway Management Protocol #602

**ALS Standing Orders**

- **Rhythm analysis and shocks** – At 200 compressions begin charging the monitor – continue CPR while monitor is charging. Once fully charged, stop CPR for rhythm analysis:
  - V-fib/Pulseless V-tach – shock at 120J
  - Subsequent shock at 150J then 200J
  - Recurrent V-fib/Pulseless V-tach use last successful shock level
  - No shock indicated – dump the charge
- **V-fib/Pulseless V-tach** – medications
  - Epinephrine 1:10,000 1 mg IV/IO repeat every 3-5 min
  - Lidocaine 1.5 mg/kg IV/IO repeat once in 3-5 min (max total dose 3 mg/kg)
- **Non-shockable rhythm** – medications
  - Epinephrine 1:10,000 1 mg IV/IO repeat every 3-5 min

**Base Hospital Orders Only**

**Contact STEMI Receiving Center (French Hospital)**
- **Dopamine** 5-20 mcg/kg/min with BP < 100 mmHg
- Refractory V-Fib or V-Tach not responsive to treatment
- Request for a change in destination if patient rearrests en route
- Termination orders when unresponsive to resuscitative measures
- As needed

**Contact appropriate Base Station per Base Station Report Policy #121 - Atraumatic cardiac arrests due to non-cardiac origin (OD, drowning, etc.)**

- **Rhythm analysis and shocks** – At 200 compressions begin charging the monitor – continue CPR while monitor is charging. Once fully charged, stop CPR for rhythm analysis:
  - V-fib/Pulseless V-tach - shock at 2J/kg
  - Subsequent shock at 4J/kg
  - Recurrent V-fib/Pulseless V-tach use last successful shock level
  - No shock indicated – dump the charge
- **V-fib/Pulseless V-tach** – medications
  - Epinephrine 1:10,000 0.01 mg/kg (0.1 ml/kg) IV/IO repeat every 3-5 min
  - Lidocaine 1 mg/kg IVP/IO repeat every 5 min (max total dose 3 mg/kg)
- **Non-shockable rhythm** – medications
  - Epinephrine 1:10,000 0.01 mg/kg (0.1 ml/kg) IV/IO repeat every 3-5 min

- **As needed** – Contact closest Base Hospital for additional orders
### Notes

- **Use manufacturer recommended energy settings if different from listed**
- **Assess for reversible causes**
  - Tension PTX, hypoxia, hypovolemia, hypothermia, hyperkalemia, hypoglycemia, overdose
- **Vascular access** – IV preferred over IO – continue vascular access attempts even if IO access established
- **Oral Intubation (Adults)** – Consider only if airway is not compliant or with maintained ROSC
- **Adult ROSC that is maintained:**
  - Obtain 12-lead ECG and vital signs
  - Transport to the nearest STEMI Receiving Center regardless of 12-lead ECG reading
  - Maintain O₂ Sat > 94%
  - Monitor ETCO₂
  - Consider oral intubation
  - With BP < 100 mmHg, contact SRC (French Hospital) for fluid or Dopamine orders
- **Termination for patients > 34 Kg - Contact SRC (French Hospital) for termination orders**
  - If the patient remains pulseless and apneic following 20 minutes of resuscitative measures
  - Persistent ETCO₂ values < 10mmHg, consider termination of resuscitation
  - Documentation shall include the patient’s failure to respond to treatment and of a non-viable cardiac rhythm (copy of rhythm strip)
- **Pediatric patients ≤ 34 kg**
  - Stay on scene to establish vascular access, provide for airway management, and administer the first dose of epinephrine followed by 2 min of HPCPR.
  - Emphasize quality CPR rather than immediate transport
  - Evaluate and treat for respiratory causes
  - Use Broselow tape if available
  - Contact and transport to the nearest Base Hospital
  - Receiving Hospital shall provide medical direction/termination for pediatric patients