NRP vs PALS
the great debate
strive to revive

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NRP instructor update:

• “Although scenarios encountered outside of the delivery room may be different from the events in the immediate post-delivery period, the physiologic principles remain the same throughout the neonatal period.”

• “The priority for resuscitating babies at any time during the newborn period, regardless of location, should be to restore adequate ventilation...”
NRP Resuscitation Algorithm

Pediatric Bradycardia
With a Pulse and Poor Perfusion

1. Identify and treat underlying cause
   - Maintain patent airway; assist breathing as necessary
   - Oxygen
   - Cardiac monitor to identify rhythm; monitor blood pressure and oximetry
   - IO access
   - 12-Lead ECG if available; don’t delay therapy

2. CPR if HR <60/min with your preferred method; oxygenation and ventilation

3. Cardiopulmonary compromise continues?
   - Yes
   - Bradycardia persists?
     - Yes
     - Epinephrine
     - Atropine
     - Consider transcutaneous pacing/transcutaneous pacing
     - Treat underlying causes

4. Support ABCs
   - Give oxygen
   - Observe
   - Consider expert consultation

5. If pulseless arrest develops, go to Cardiac Arrest Algorithm

6. Pediatric Cardiac Arrest
   - Start CPR
   - Hypoventilation
   - Hypotension
   - Acutely altered mental status
   - Signs of shock

Doses/Details
- Epinephrine: IO/V: 0.01 mg/kg (0.1 mL/kg)
- Atropine: IO/V: 0.02 mg/kg. May repeat once. Minimum dose 0.1 mg and maximum single dose 0.5 mg.

American Heart Association

PALS Algorithms

Pediatric Cardiac Arrest
- Shout for Help/Activate Emergency Response

1. Start CPR
2. Hypoventilation
3. Hypotension
4. Acutely altered mental status
5. Signs of shock

Doses/Details
- Epinephrine: IO/V: 0.01 mg/kg (0.1 mL/kg)
- Atropine: IO/V: 0.02 mg/kg. May repeat once. Minimum dose 0.1 mg and maximum single dose 0.5 mg.

American Heart Association
## Differences between NRP and PALS for infant CPR

<table>
<thead>
<tr>
<th></th>
<th>NRP</th>
<th>PALS</th>
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</thead>
<tbody>
<tr>
<td><strong>Compression: Ventilation Ratio</strong></td>
<td>3:1 coordinated</td>
<td>30:2 coordinated (single rescuer) 15:2 coordinated (2 rescuer)</td>
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<tr>
<td></td>
<td>*with advanced airway</td>
<td>100 compressions/min and 8-10 breaths/minute, not coordinated</td>
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<tr>
<td><strong>Heart Rate checks</strong></td>
<td>Q 45-60 sec</td>
<td>Q 2 min</td>
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<tr>
<td><strong>Pathologic Rhythm Addressed</strong></td>
<td>Bradycardia, Asystole</td>
<td>Bradycardia/Tachyarrhythm, Asystole, PEA, V-Fib/pulseless V-tach</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Resuscitation UVC</td>
<td>IV, IO</td>
</tr>
<tr>
<td><strong>Medications</strong></td>
<td>Epinephrine</td>
<td>Adenosine, amiodarone, atropine, calcium chloride, epinephrine, glucose, lidocaine, naloxone, magnesium sulfate, procainamide, bicarbonate</td>
</tr>
</tbody>
</table>


- Thanks!