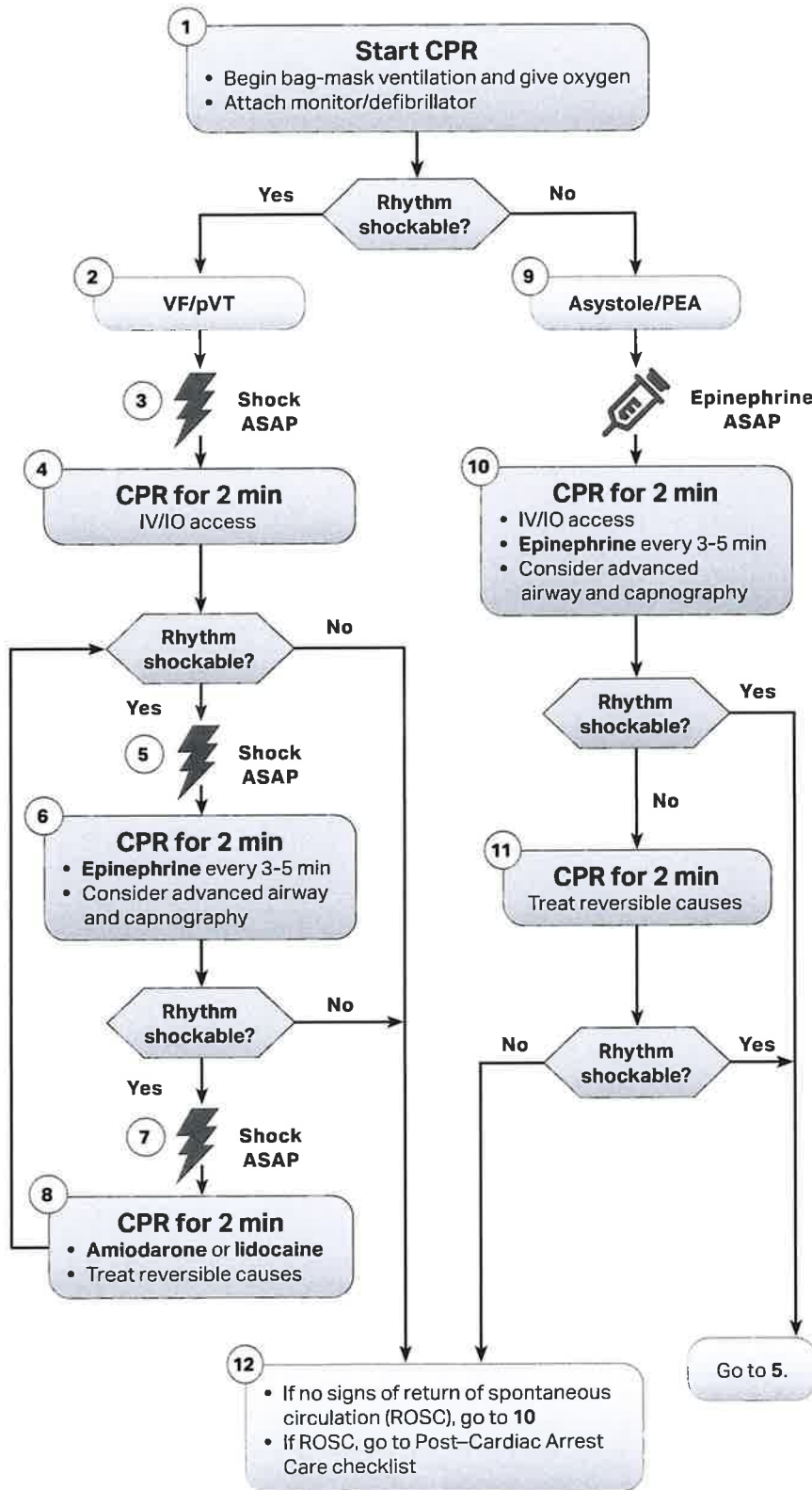
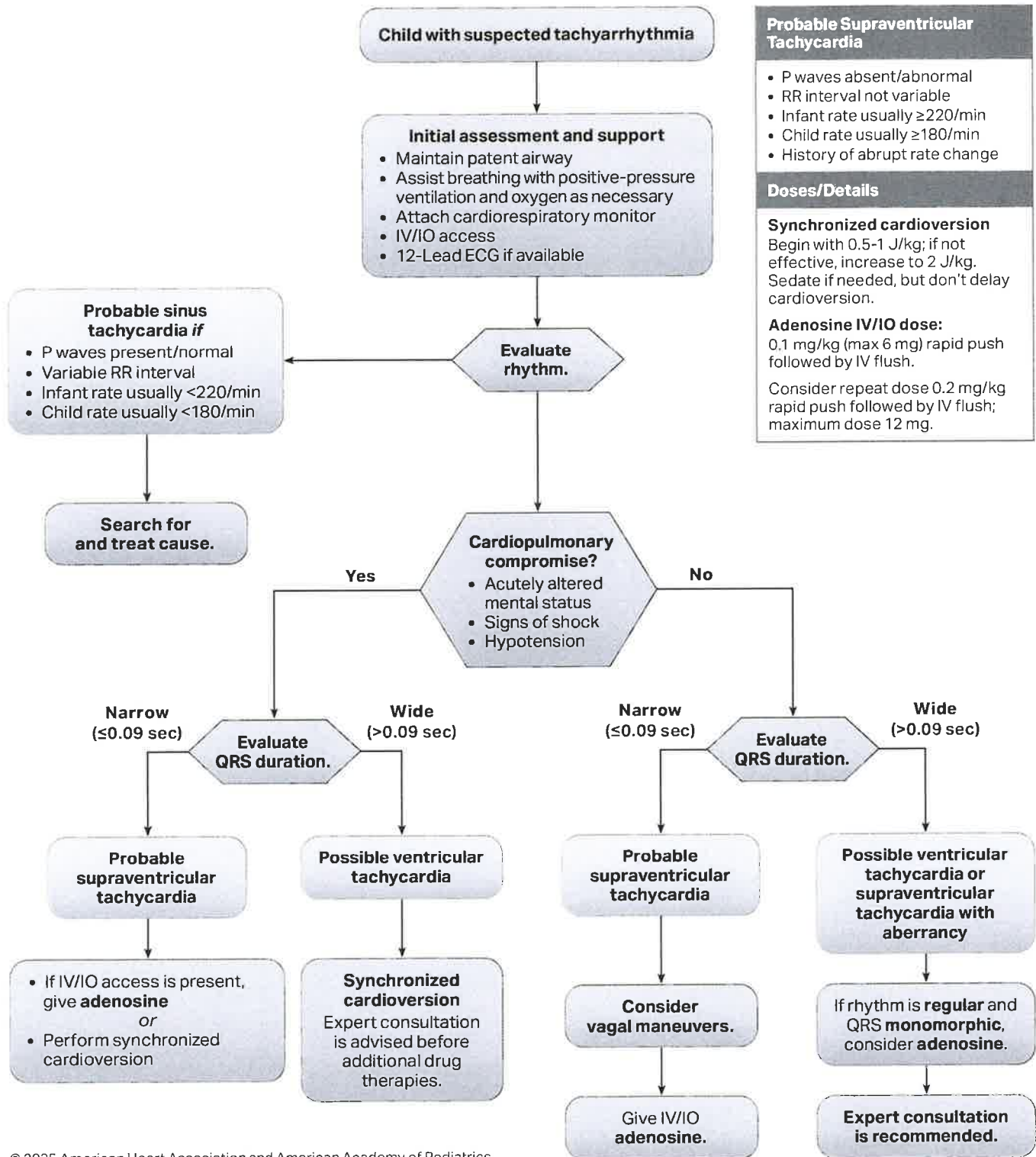


# Pediatric Cardiac Arrest Algorithm



|  |
|--|
| <b>High Quality CPR</b>  |
| <ul style="list-style-type: none"> <li>• Push hard (≥ 1/3 chest depth)</li> <li>• Push fast: 100-120/min</li> <li>• Allow full chest recoil</li> <li>• Minimize interruptions in compressions</li> <li>• Change compressor every 2 min, sooner if fatigued</li> <li>• If no advanced airway, compression-ventilation ratio               <ul style="list-style-type: none"> <li>- 15:2 - 2 rescuers (pre-puberty)</li> <li>- 30:2 - 2 rescuers (post-puberty onset)</li> <li>- 30:2 - 1 rescuer (any age)</li> </ul> </li> <li>• If advanced airway, provide continuous compressions and give a breath every 2-3 seconds</li> <li>• Monitor ETCO<sub>2</sub> and, when available, invasive diastolic BP</li> </ul> |
| <b>Shock Energy for Defibrillation</b>   |
| <ul style="list-style-type: none"> <li>• First shock 2 J/kg</li> <li>• Second shock 4 J/kg</li> <li>• Subsequent shocks ≥4 J/kg, maximum 10 J/kg or adult dose</li> </ul>  |
| <b>Drug Therapy</b>  |
| <ul style="list-style-type: none"> <li>• <b>Epinephrine IV/IO dose:</b> 0.01 mg/kg (0.1 mg/mL concentration), Max dose 1 mg.</li> <li>• <b>Amiodarone IV/IO dose:</b> 5 mg/kg bolus (max 300 mg). May repeat up to 3 doses (max 150 mg subsequent doses).</li> <li>or</li> <li>• <b>Lidocaine IV/IO dose:</b> 1 mg/kg</li> </ul>   |
| <b>Advanced Airway</b>   |
| <ul style="list-style-type: none"> <li>• Endotracheal intubation or supraglottic airway</li> <li>• ETCO<sub>2</sub> to confirm and monitor ET tube placement</li> </ul>  |
| <b>Reversible Causes</b>   |
| <ul style="list-style-type: none"> <li>• Hypovolemia</li> <li>• Hypoxia</li> <li>• Hydrogen ion (acidosis)</li> <li>• Hypoglycemia</li> <li>• Hypo-/hyperkalemia</li> <li>• Hypothermia</li> <li>• Tension pneumothorax</li> <li>• Tamponade, cardiac</li> <li>• Toxins</li> <li>• Thrombosis, pulmonary</li> <li>• Thrombosis, coronary</li> </ul>  |

# Pediatric Tachyarrhythmia With a Pulse Algorithm



**Probable Supraventricular Tachycardia**

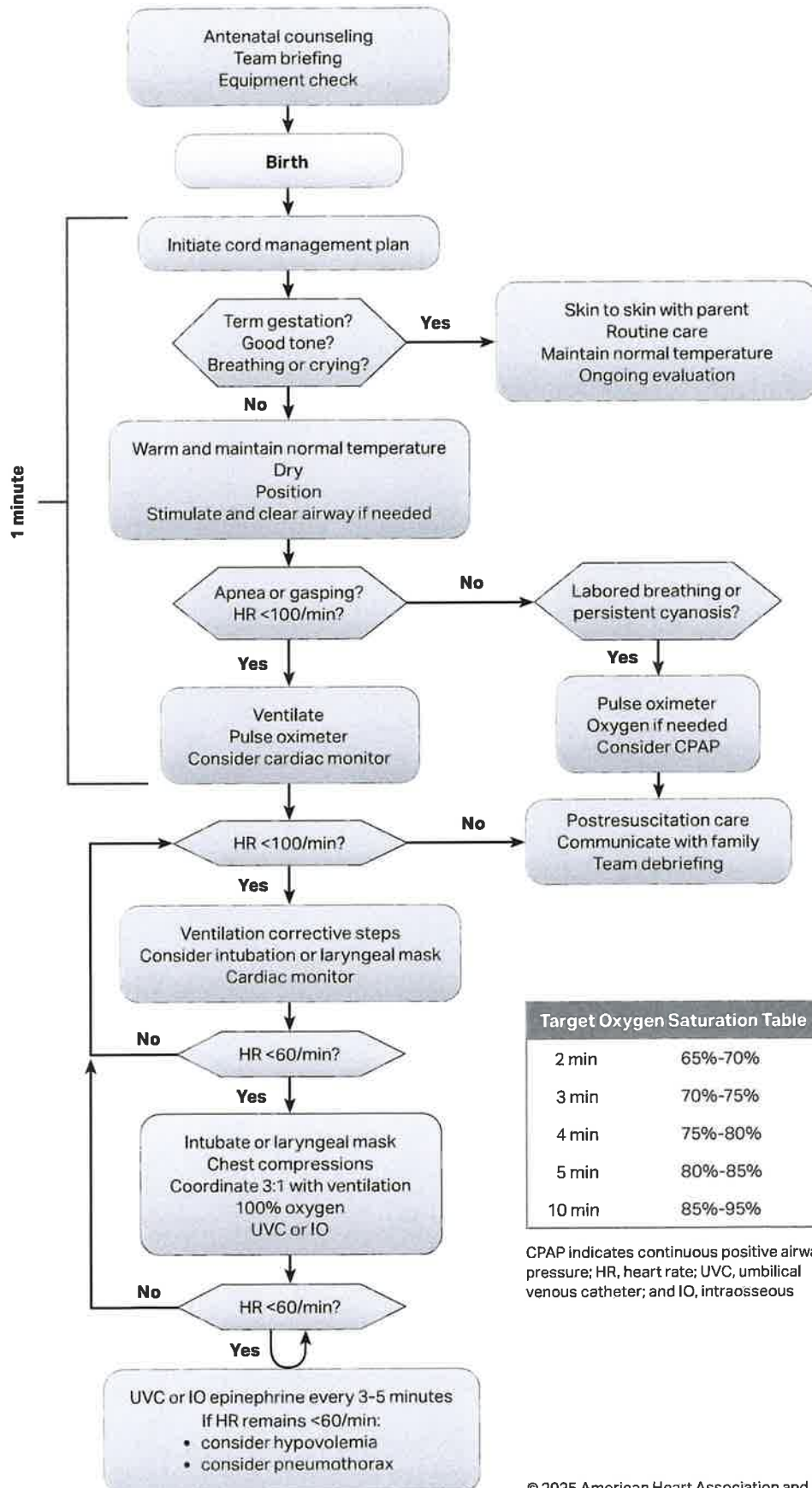
- P waves absent/abnormal
- RR interval not variable
- Infant rate usually  $\geq 220$ /min
- Child rate usually  $\geq 180$ /min
- History of abrupt rate change

**Doses/Details**

**Synchronized cardioversion**  
Begin with 0.5-1 J/kg; if not effective, increase to 2 J/kg. Sedate if needed, but don't delay cardioversion.

**Adenosine IV/IO dose:**  
0.1 mg/kg (max 6 mg) rapid push followed by IV flush.  
Consider repeat dose 0.2 mg/kg rapid push followed by IV flush; maximum dose 12 mg.

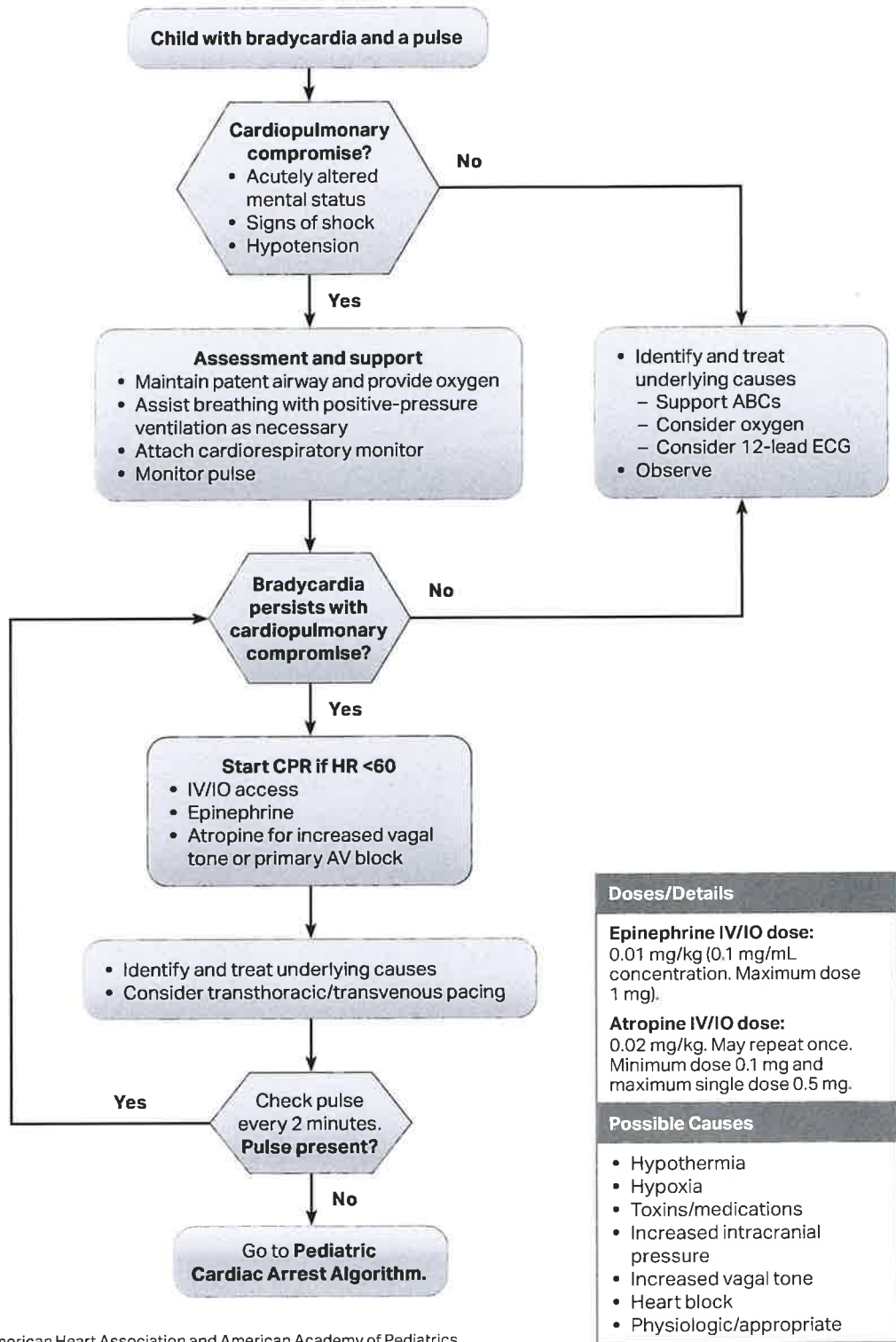
# Neonatal Resuscitation Algorithm



| Target Oxygen Saturation Table |         |
|--------------------------------|---------|
| 2 min                          | 65%-70% |
| 3 min                          | 70%-75% |
| 4 min                          | 75%-80% |
| 5 min                          | 80%-85% |
| 10 min                         | 85%-95% |

CPAP indicates continuous positive airway pressure; HR, heart rate; UVC, umbilical venous catheter; and IO, intraosseous

# Pediatric Bradycardia With a Pulse Algorithm



| Doses/Details   |
|---|
| <b>Epinephrine IV/IO dose:</b><br>0.01 mg/kg (0.1 mg/mL concentration. Maximum dose 1 mg).  |
| <b>Atropine IV/IO dose:</b><br>0.02 mg/kg. May repeat once. Minimum dose 0.1 mg and maximum single dose 0.5 mg.   |
| Possible Causes   |
| <ul style="list-style-type: none"> <li>• Hypothermia</li> <li>• Hypoxia</li> <li>• Toxins/medications</li> <li>• Increased intracranial pressure</li> <li>• Increased vagal tone</li> <li>• Heart block</li> <li>• Physiologic/appropriate</li> </ul> |