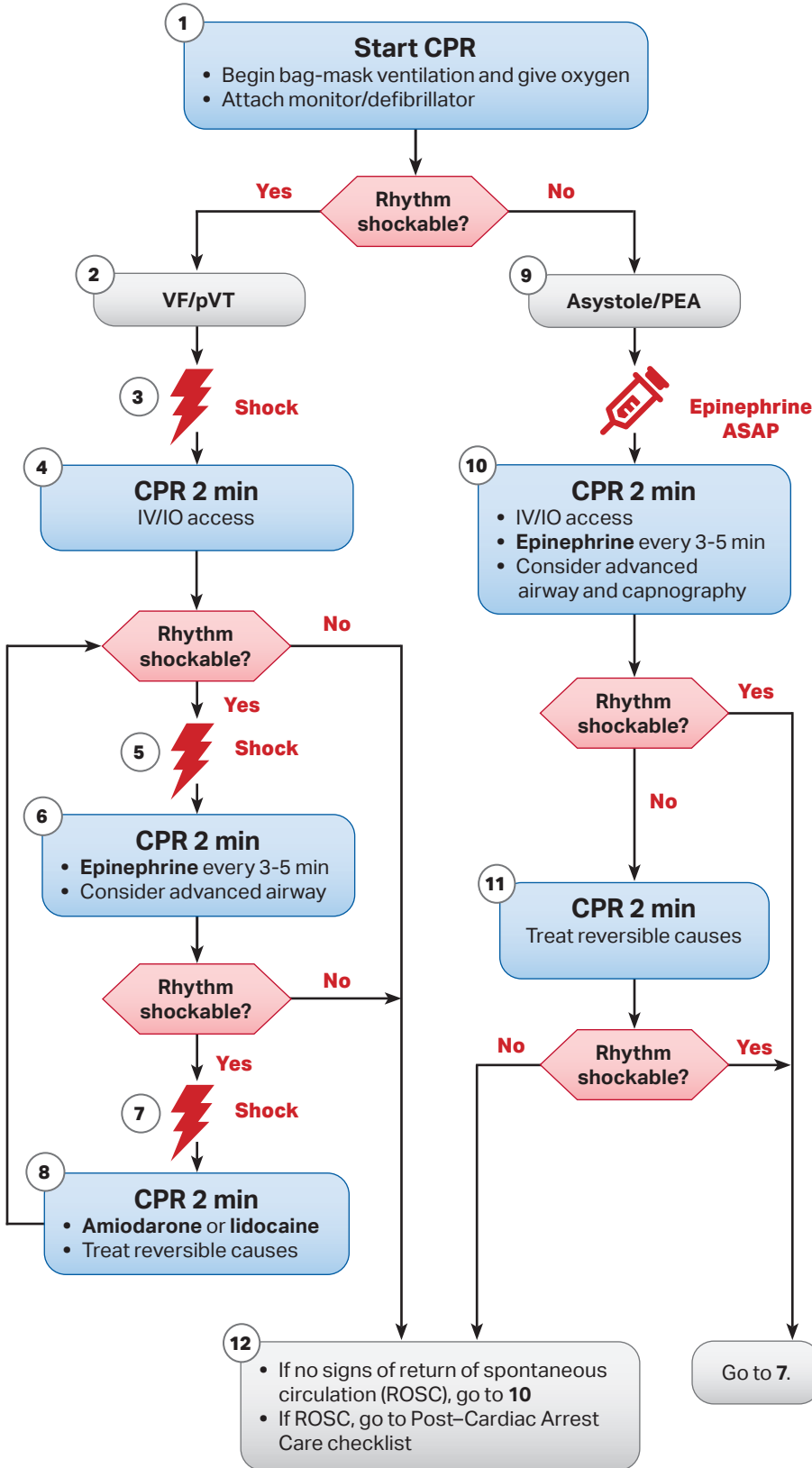


# Pediatric Cardiac Arrest Algorithm



## CPR Quality

- Push hard ( $\geq 1/3$  of anteroposterior diameter of chest) and fast (100-120/min) and allow complete chest recoil
- Minimize interruptions in compressions
- Change compressor every 2 minutes, or sooner if fatigued
- If no advanced airway, 15:2 compression-ventilation ratio
- If advanced airway, provide continuous compressions and give a breath every 2-3 seconds

## Shock Energy for Defibrillation

- First shock 2 J/kg
- Second shock 4 J/kg
- Subsequent shocks  $\geq 4$  J/kg, maximum 10 J/kg or adult dose

## Drug Therapy

- **Epinephrine IV/IO dose:** 0.01 mg/kg (0.1 mL/kg of the 0.1 mg/mL concentration). Max dose 1 mg. Repeat every 3-5 minutes. If no IV/IO access, may give endotracheal dose: 0.1 mg/kg (0.1 mL/kg of the 1 mg/mL concentration).
- **Amiodarone IV/IO dose:** 5 mg/kg bolus during cardiac arrest. May repeat up to 3 total doses for refractory VF/pulseless VT or
- **Lidocaine IV/IO dose:** Initial: 1 mg/kg loading dose

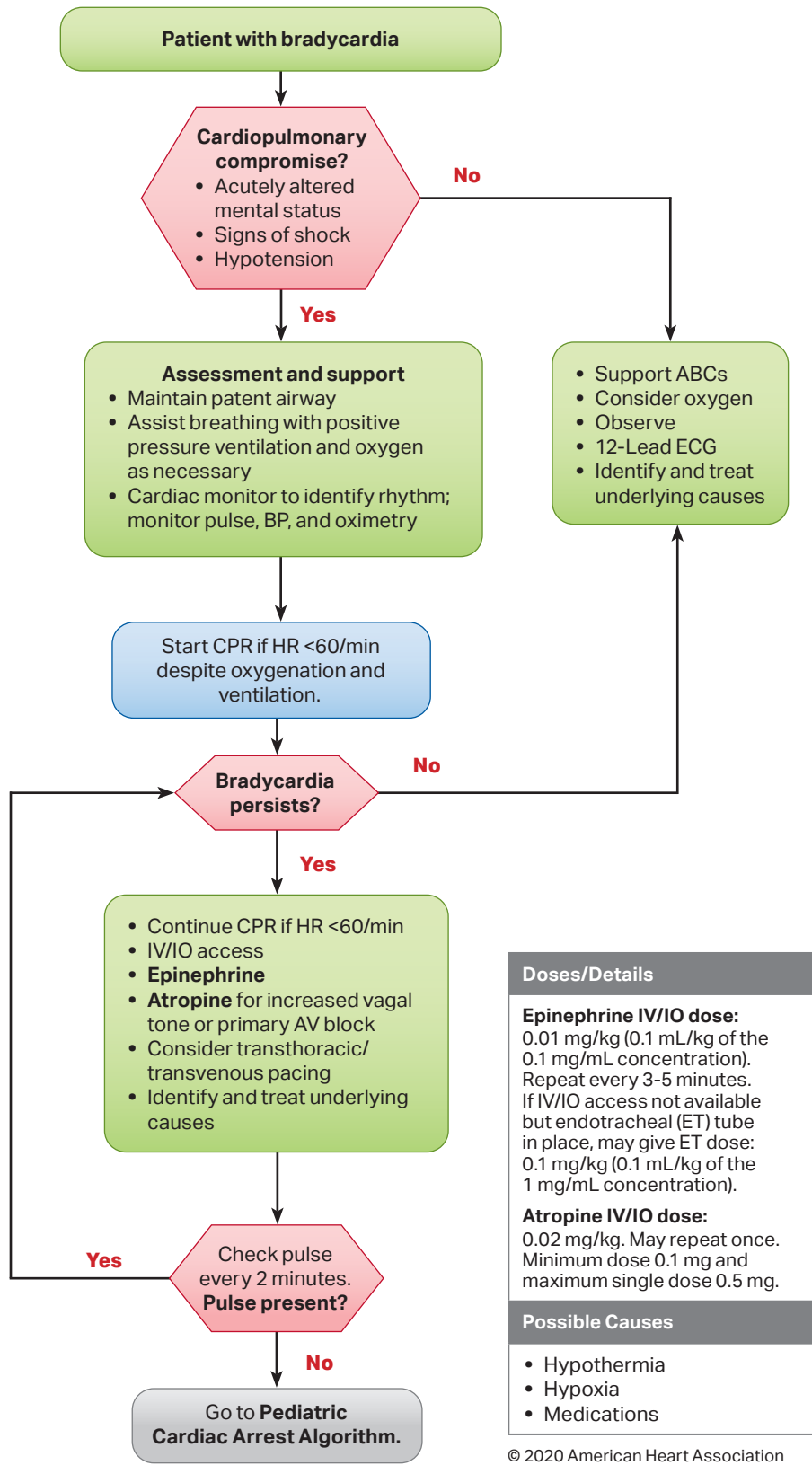
## Advanced Airway

- Endotracheal intubation or supraglottic advanced airway
- Waveform capnography or capnometry to confirm and monitor ET tube placement

## Reversible Causes

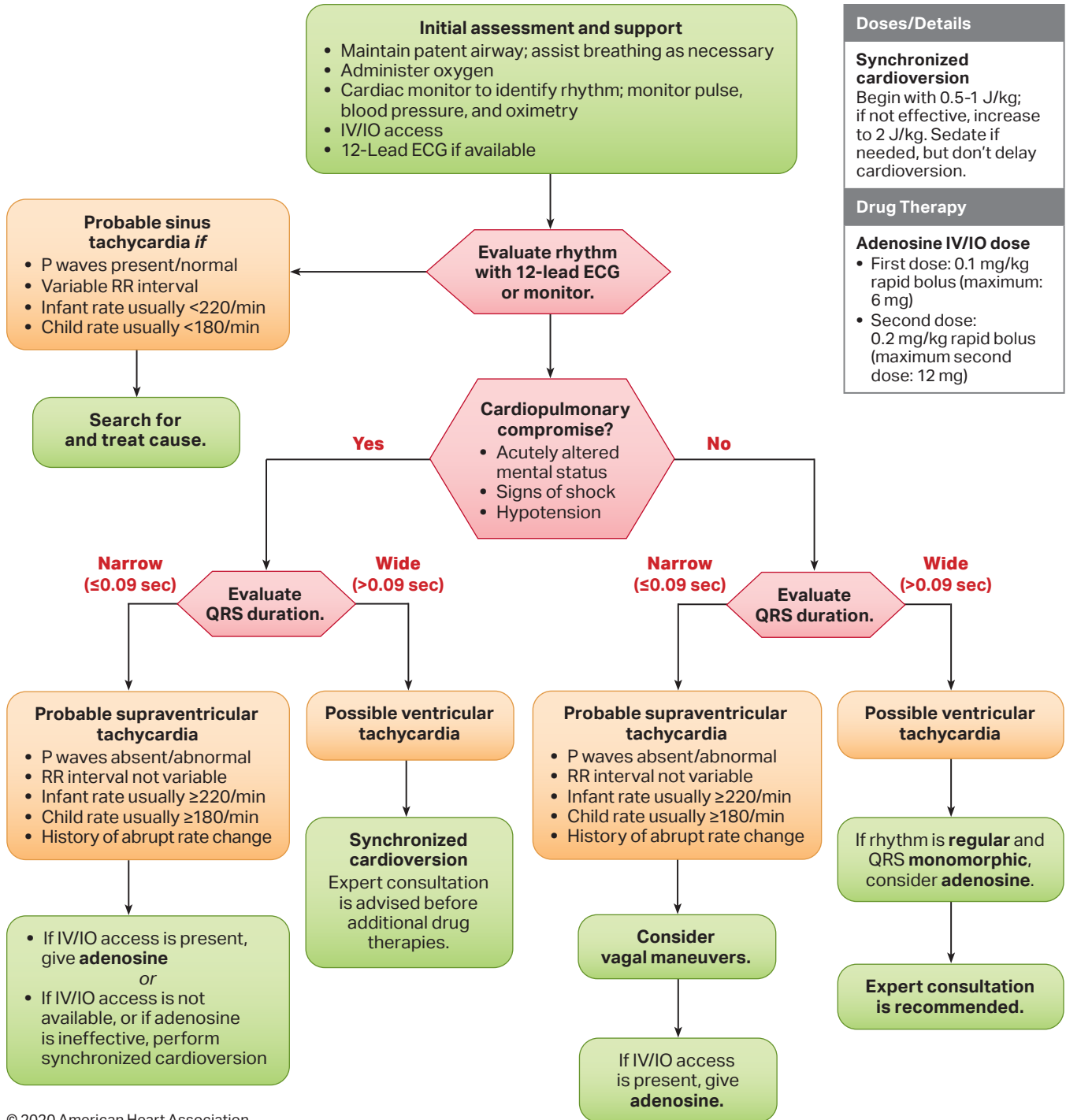
- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypoglycemia
- Hypo-/hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary

# Pediatric Bradycardia With a Pulse Algorithm



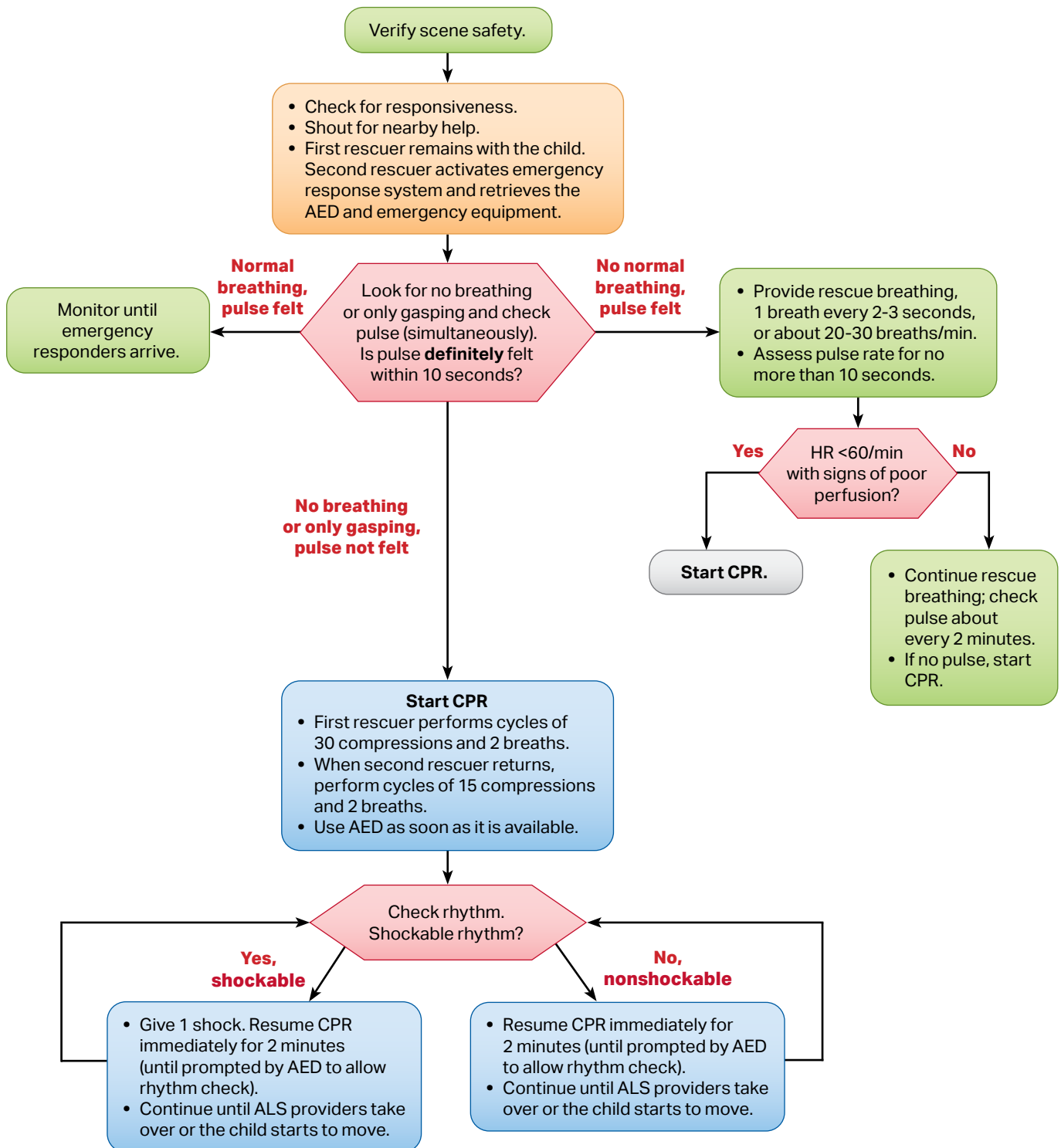
| Doses/Details   |
|---|
| <p><b>Epinephrine IV/IO dose:</b><br/>0.01 mg/kg (0.1 mL/kg of the 0.1 mg/mL concentration). Repeat every 3-5 minutes. If IV/IO access not available but endotracheal (ET) tube in place, may give ET dose: 0.1 mg/kg (0.1 mL/kg of the 1 mg/mL concentration).</p> <p><b>Atropine IV/IO dose:</b><br/>0.02 mg/kg. May repeat once. Minimum dose 0.1 mg and maximum single dose 0.5 mg.</p> |
| Possible Causes   |
| <ul style="list-style-type: none"> <li>• Hypothermia</li> <li>• Hypoxia</li> <li>• Medications</li> </ul>   |

# Pediatric Tachycardia With a Pulse Algorithm

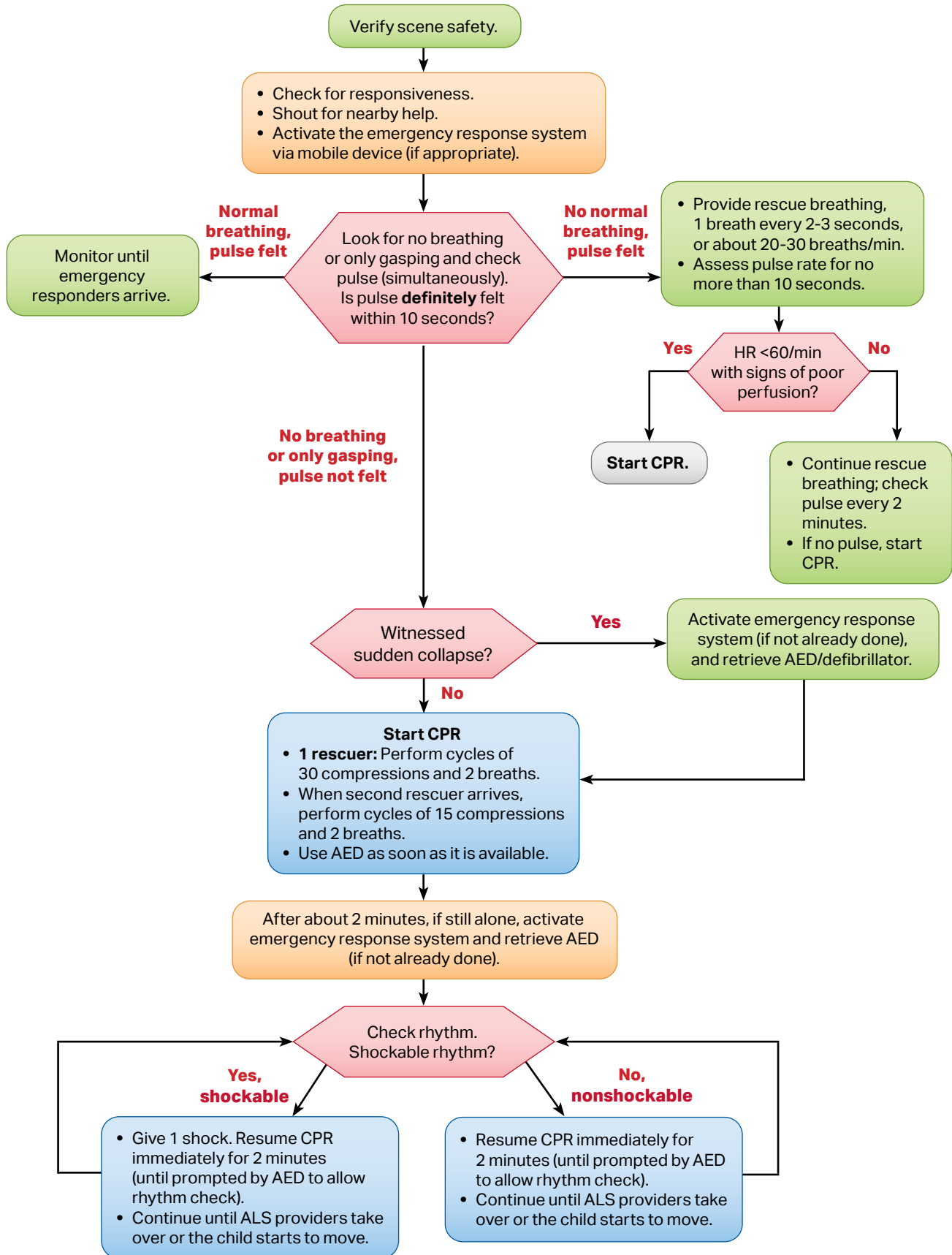


| Doses/Details  |
|--|
| <b>Synchronized cardioversion</b><br>Begin with 0.5-1 J/kg; if not effective, increase to 2 J/kg. Sedate if needed, but don't delay cardioversion.   |
| Drug Therapy   |
| <b>Adenosine IV/IO dose</b> <ul style="list-style-type: none"> <li>• First dose: 0.1 mg/kg rapid bolus (maximum: 6 mg)</li> <li>• Second dose: 0.2 mg/kg rapid bolus (maximum second dose: 12 mg)</li> </ul> |

# Pediatric Basic Life Support Algorithm for Healthcare Providers—2 or More Rescuers



# Pediatric Basic Life Support Algorithm for Healthcare Providers—Single Rescuer



# PALS Systematic Approach Algorithm

