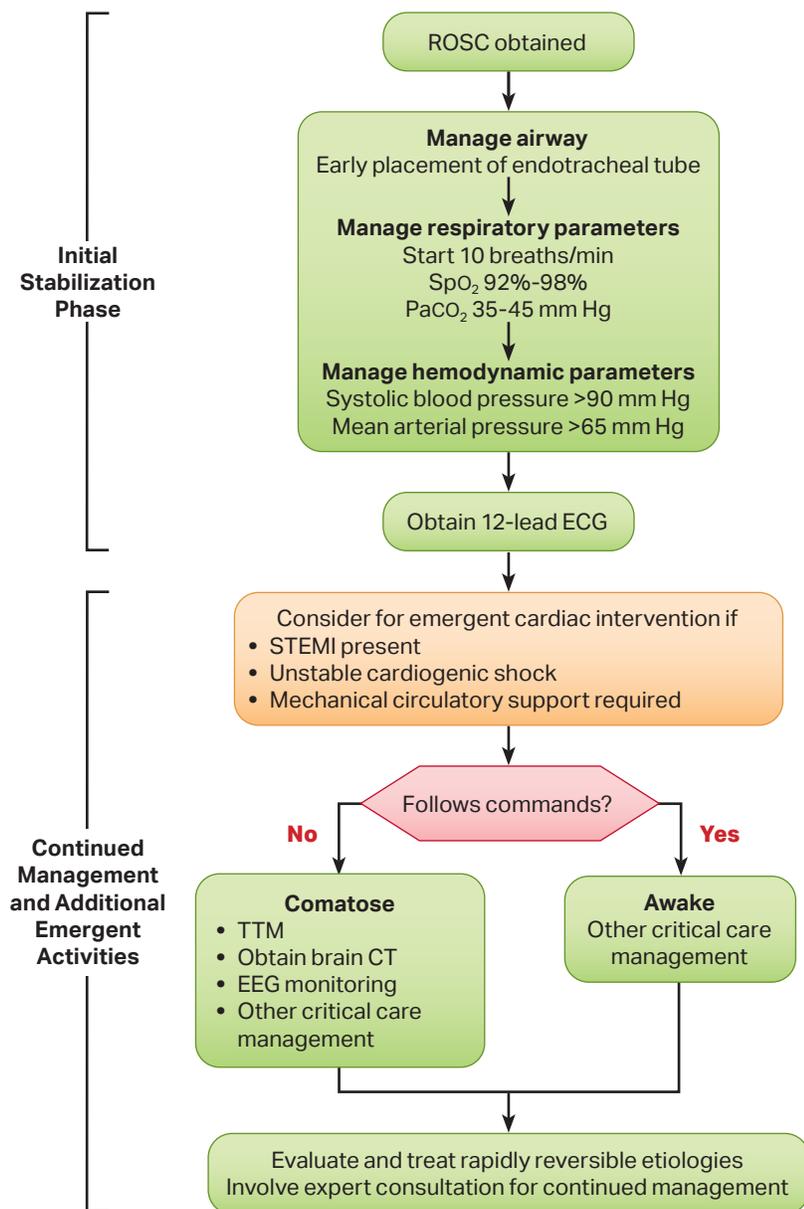


# ACLS Healthcare Provider Post-Cardiac Arrest Care Algorithm



## Initial Stabilization Phase

Resuscitation is ongoing during the post-ROSC phase, and many of these activities can occur concurrently. However, if prioritization is necessary, follow these steps:

- Airway management: Waveform capnography or capnometry to confirm and monitor endotracheal tube placement
- Manage respiratory parameters: Titrate  $FiO_2$  for  $SpO_2$  92%-98%; start at 10 breaths/min; titrate to  $PaCO_2$  of 35-45 mm Hg
- Manage hemodynamic parameters: Administer crystalloid and/or vasopressor or inotrope for goal systolic blood pressure >90 mm Hg or mean arterial pressure >65 mm Hg

## Continued Management and Additional Emergent Activities

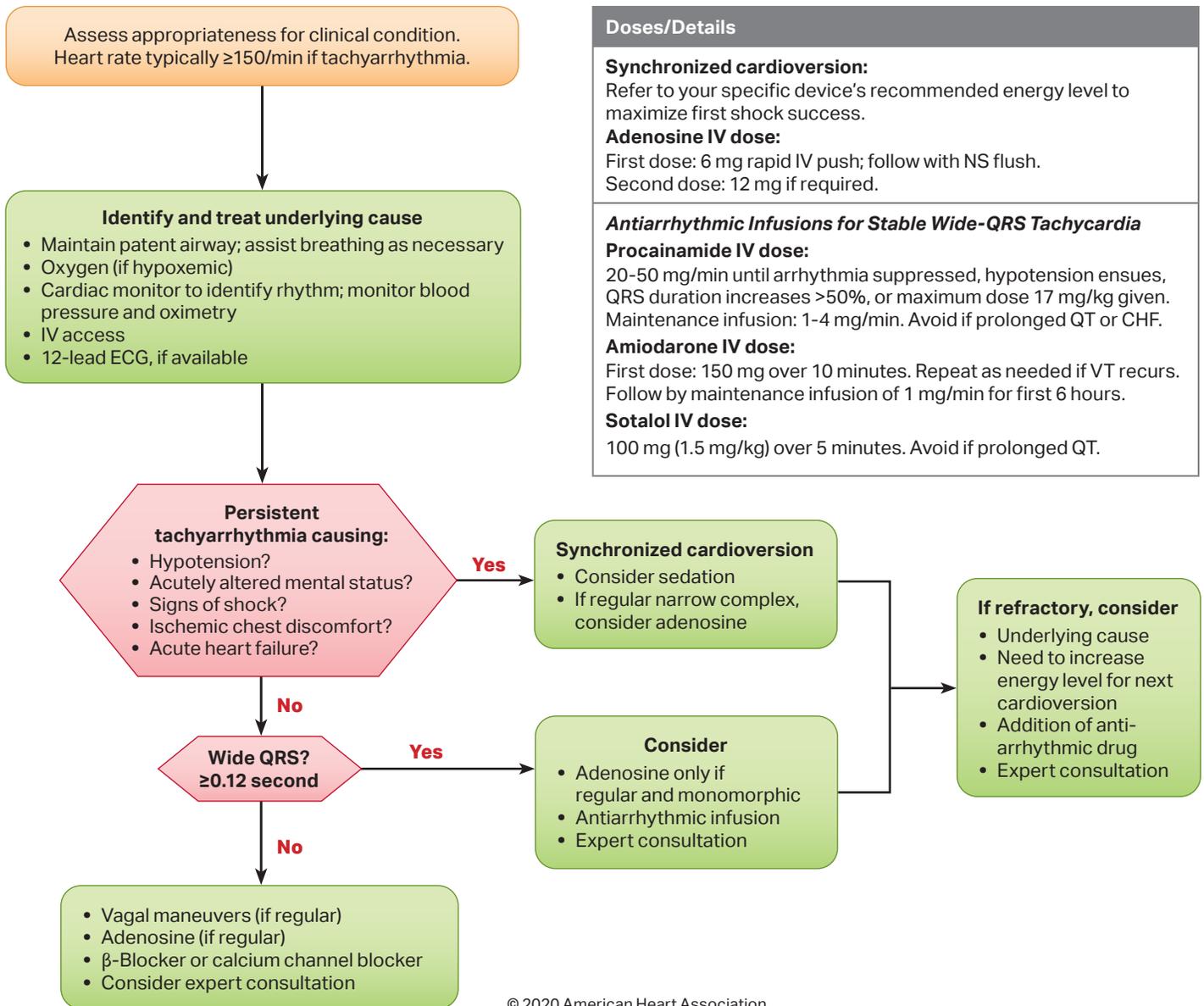
These evaluations should be done concurrently so that decisions on targeted temperature management (TTM) receive high priority as cardiac interventions.

- Emergent cardiac intervention: Early evaluation of 12-lead electrocardiogram (ECG); consider hemodynamics for decision on cardiac intervention
- TTM: If patient is not following commands, start TTM as soon as possible; begin at 32-36°C for 24 hours by using a cooling device with feedback loop
- Other critical care management
  - Continuously monitor core temperature (esophageal, rectal, bladder)
  - Maintain normoxia, normocapnia, euglycemia
  - Provide continuous or intermittent electroencephalogram (EEG) monitoring
  - Provide lung-protective ventilation

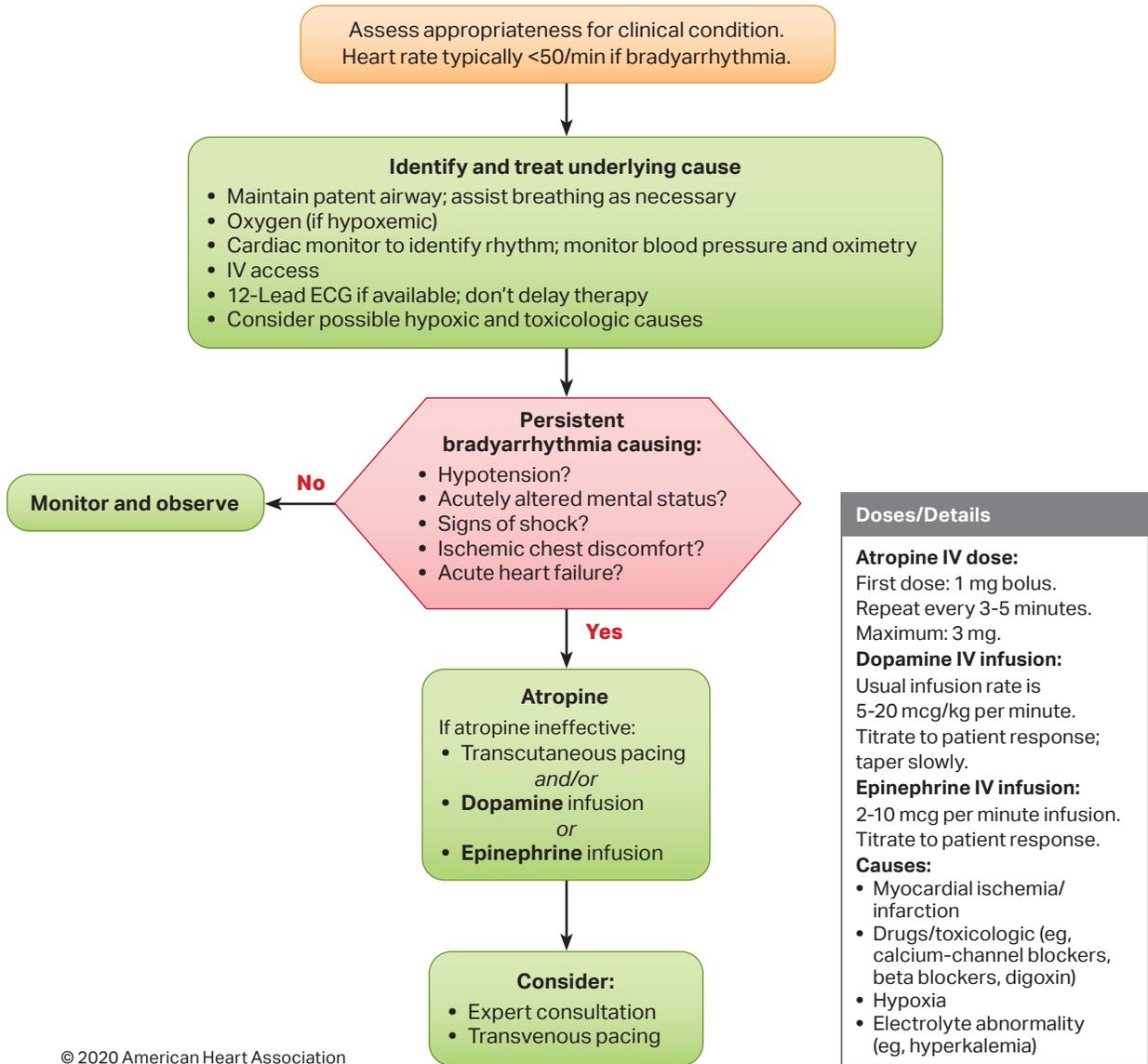
## H's and T's

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

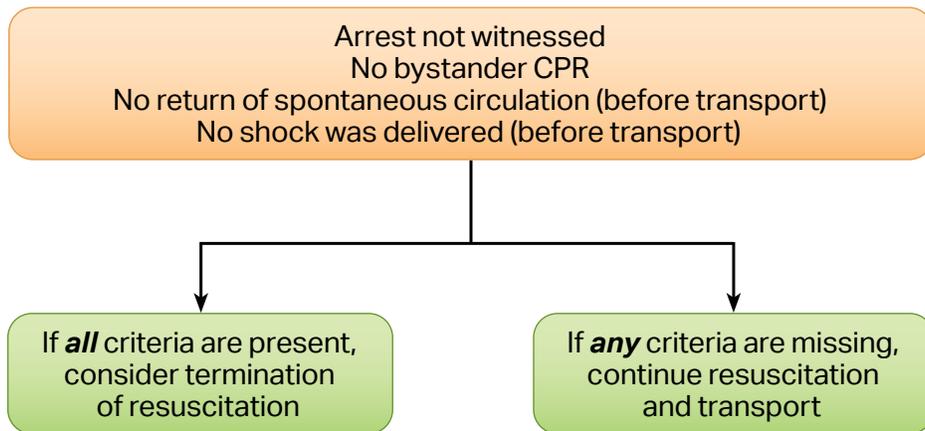
# Adult Tachycardia With a Pulse Algorithm



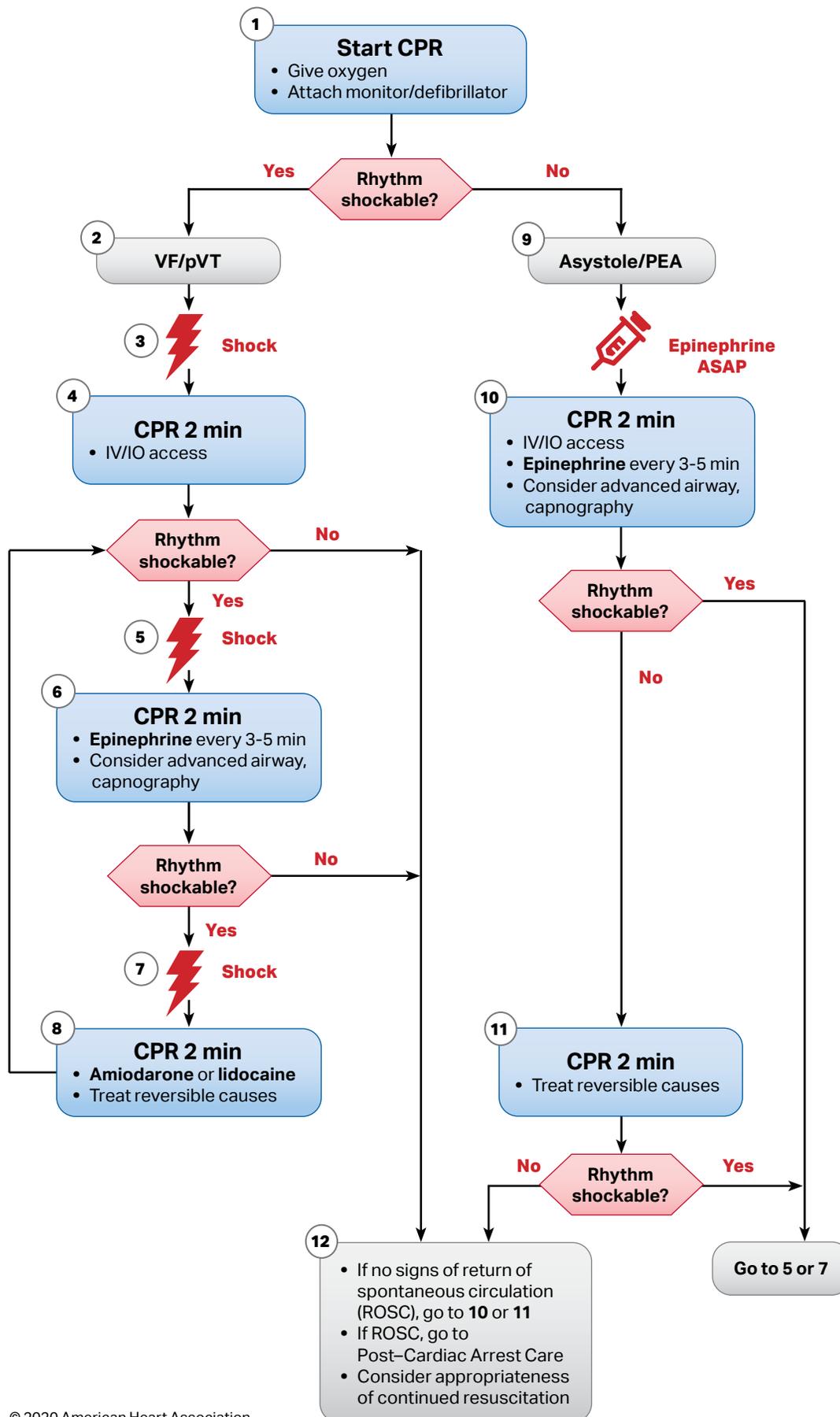
# Adult Bradycardia Algorithm



## ACLS Termination of Resuscitation



# Adult Cardiac Arrest Algorithm



CPR Quality
<ul style="list-style-type: none"> <li>• Push hard (at least 2 inches [5 cm]) and fast (100-120/min) and allow complete chest recoil.</li> <li>• Minimize interruptions in compressions.</li> <li>• Avoid excessive ventilation.</li> <li>• Change compressor every 2 minutes, or sooner if fatigued.</li> <li>• If no advanced airway, 30:2 compression-ventilation ratio, or 1 breath every 6 seconds.</li> <li>• Quantitative waveform capnography               <ul style="list-style-type: none"> <li>– If PETCO<sub>2</sub> is low or decreasing, reassess CPR quality.</li> </ul> </li> </ul>
Shock Energy for Defibrillation
<ul style="list-style-type: none"> <li>• <b>Biphasic:</b> Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.</li> <li>• <b>Monophasic:</b> 360 J</li> </ul>
Drug Therapy
<ul style="list-style-type: none"> <li>• <b>Epinephrine IV/IO dose:</b> 1 mg every 3-5 minutes</li> <li>• <b>Amiodarone IV/IO dose:</b> First dose: 300 mg bolus. Second dose: 150 mg.</li> <li>or</li> <li>• <b>Lidocaine IV/IO dose:</b> First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg.</li> </ul>
Advanced Airway
<ul style="list-style-type: none"> <li>• Endotracheal intubation or supraglottic advanced airway</li> <li>• Waveform capnography or capnometry to confirm and monitor ET tube placement</li> <li>• Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions</li> </ul>
Return of Spontaneous Circulation (ROSC)
<ul style="list-style-type: none"> <li>• Pulse and blood pressure</li> <li>• Abrupt sustained increase in PETCO<sub>2</sub> (typically ≥40 mm Hg)</li> <li>• Spontaneous arterial pressure waves with intra-arterial monitoring</li> </ul>
Reversible Causes
<ul style="list-style-type: none"> <li>• Hypovolemia</li> <li>• Hypoxia</li> <li>• Hydrogen ion (acidosis)</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>