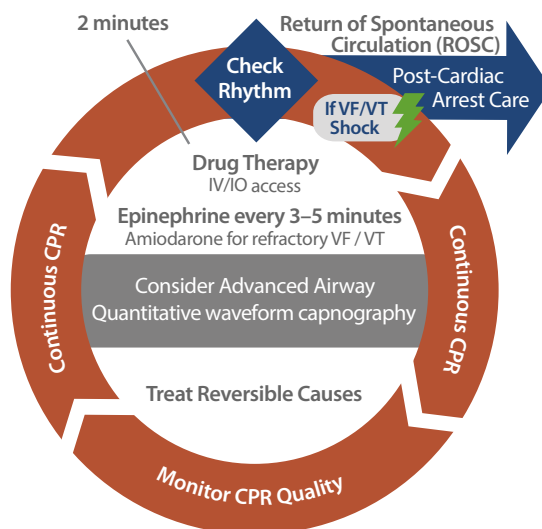




Shout for Help/Activate Emergency Response

Start CPR

- Give Oxygen
- Attach Monitor/Defibrillator



Doses/Details for the Cardiac Arrest Algorithms

CPR Quality

- Push hard (2" to 2.4" or 5–6cm) and fast (100–120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.**
- Avoid excessive ventilation
- Rotate compressor every 2 minutes
- If no advanced airway, 30:2 compression-ventilation ratio
- Quantitative waveform capnography
- If PETCO₂ < 10mm Hg, attempt to improve CPR quality
- If relaxation phase (diastolic) pressure < 20mm Hg, attempt to improve CPR quality.

Drug Therapy

- **Epinephrine IV/IO Dose:** 1 mg every 3–5 minutes
- **Amiodarone IV/IO Dose***:** First dose: 300 mg bolus
Second dose: 150 mg

Advanced Airway****

- Supraglottic advanced airway or endotracheal intubation
- Waveform capnography to confirm and monitor ET tube placement
- 10 breaths per minute with continuous chest compressions

Return of Spontaneous Circulation (ROSC)

- Pulse and blood pressure
- Abrupt sustained increase in PETCO₂ (typically ≥ 40 mm Hg)
- Spontaneous arterial pressure waves with intra-arterial monitoring

Shock Energy

- **Biphasic:** 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
- **Monophasic:** 360 J

Reversible Causes

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

* Link MS, Berkow LC, Kudenchuk PJ, Halperin HR, Hess EP, Moitra VK, Neumar RW, O'Neil BJ, Paxton JH, Silvers SM, White RD, Yannopoulos D, Donnino MW. Part 7: adult advanced cardiac life support. 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2015 132 (suppl 2):S444-S464

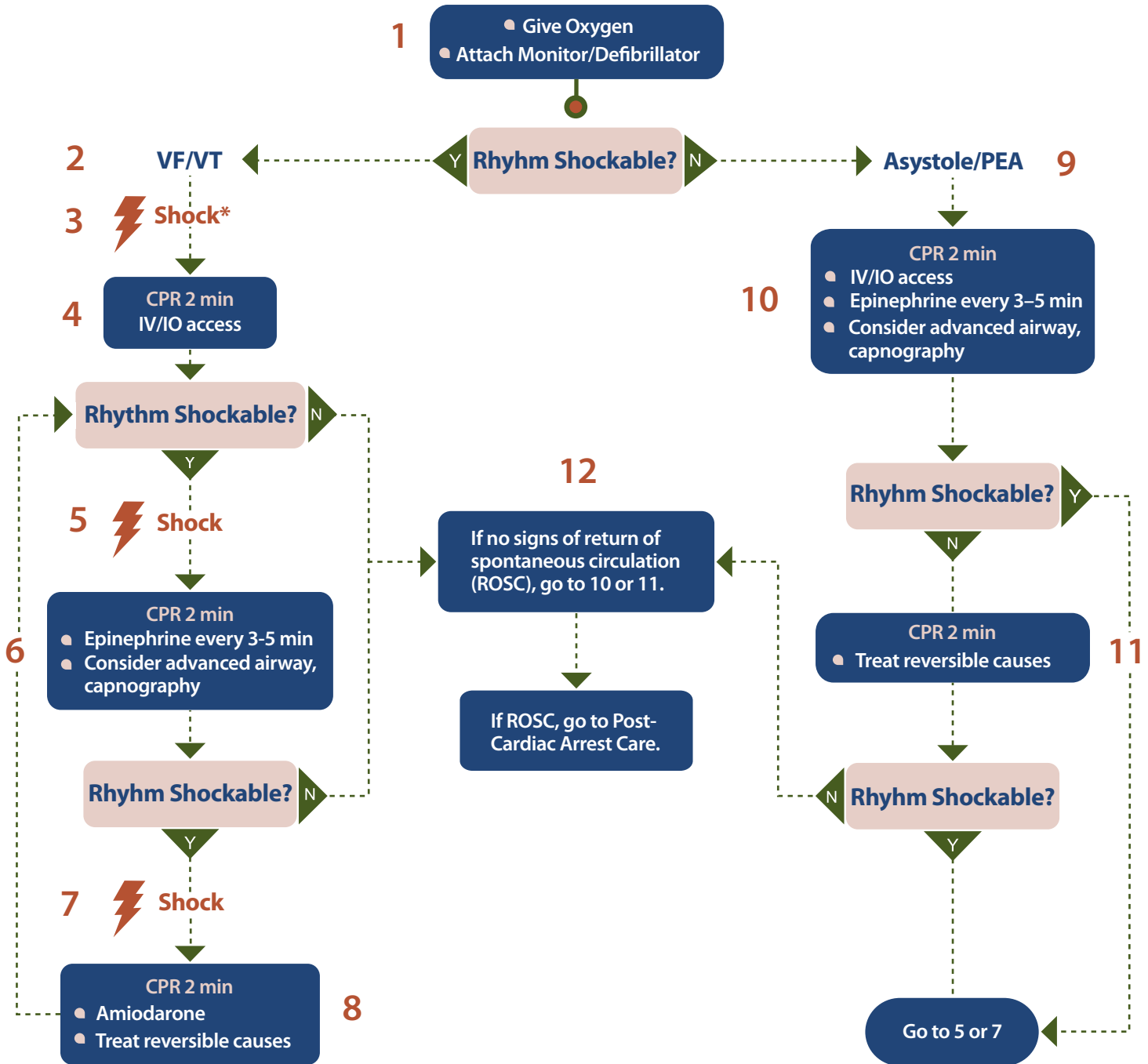
** Bobrow BJ, Clark LL, Ewy GA, Chikani V, Sanders AB, Berg RA, Richman PB. Minimally Interrupted cardiac resuscitation by emergency medical services for out of hospital cardiac arrest. *JAMA* 2008;299:1158-1165

*** Dorian P, Cass D, Schwartz B, Cooper R, Gelaznikas R, Barr A. Amiodarone as compared with Lidocaine for shock resistant ventricular fibrillation. *N Engl J Med* 2002;346:884-890.

**** Dorges V, Wenzel V, Knacke P, Gerlach K. Comparison of different airway management strategies to ventilate apneic, nonpreoxygenated patients. *Crit Care Med*. 2003;31:800-804

Shout for Help/Activate Emergency Response

Start CPR



* Link MS, Atkins DL, Plassman RS, Halperin HR, Samson RA, White RD, Cudnik MT, Berg MD, Kudenchuk PJ, Kerber RE. "Part 6: electrical therapies: automated external defibrillators, defibrillation, cardioversion, and pacing: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care." *Circulation*. 2010;122(suppl 3):S706-S719. http://circ.ahajournals.org/content/122/18_suppl_3/S706