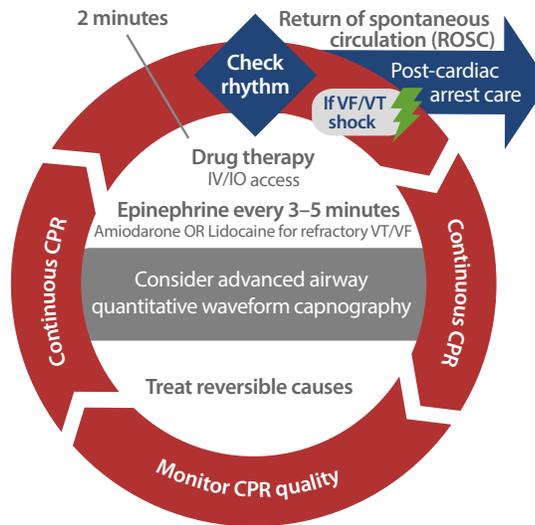




## Shout for help/activate emergency response

### Start CPR

- Give oxygen
- Attach monitor/defibrillator



## Doses/details for the cardiac arrest algorithms

### CPR quality

- Push at least 2" (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 PETCO<sub>2</sub> < 10 mm 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
- **Lidocaine:** First dose: 1–1.5 mg/kg  
Second dose: 0.5–0.75 mg/kg

### Advanced airway\*\*\*\*

- Supraglottic advanced airway or endotracheal intubation
- 10 breaths per minute with continuous chest compressions

### Indication of spontaneous circulation (ROSC)

- Pulse and blood pressure
- Abrupt sustained increase of PETCO<sub>2</sub> of > 25 mm Hg check perfusion status. An increase to greater than 40 mm Hg is confirmation of ROSC.
- 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

### Reversible causes

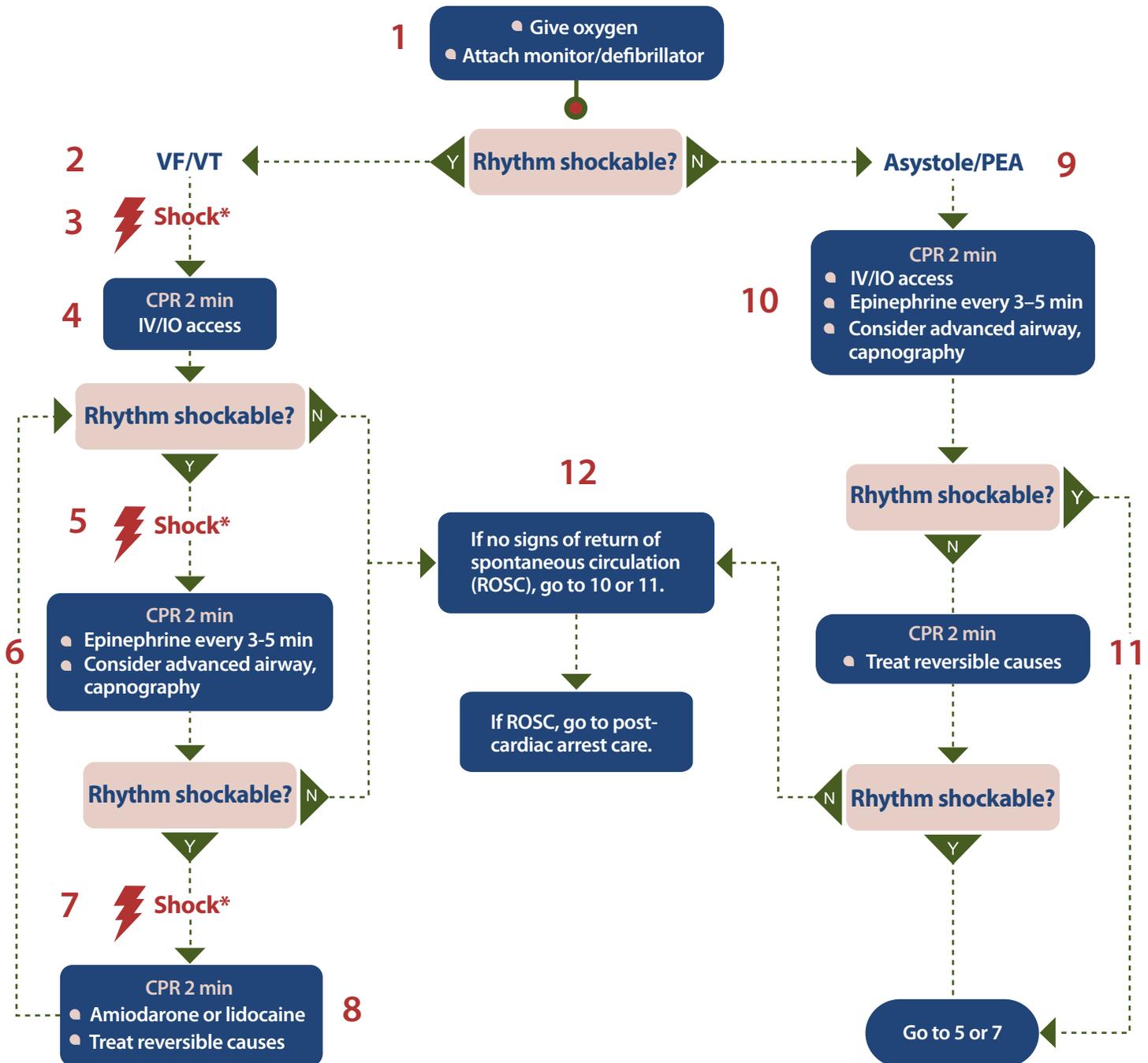
- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypo-/Hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary

\* 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](http://circ.ahajournals.org/content/122/18_suppl_3/S706)

