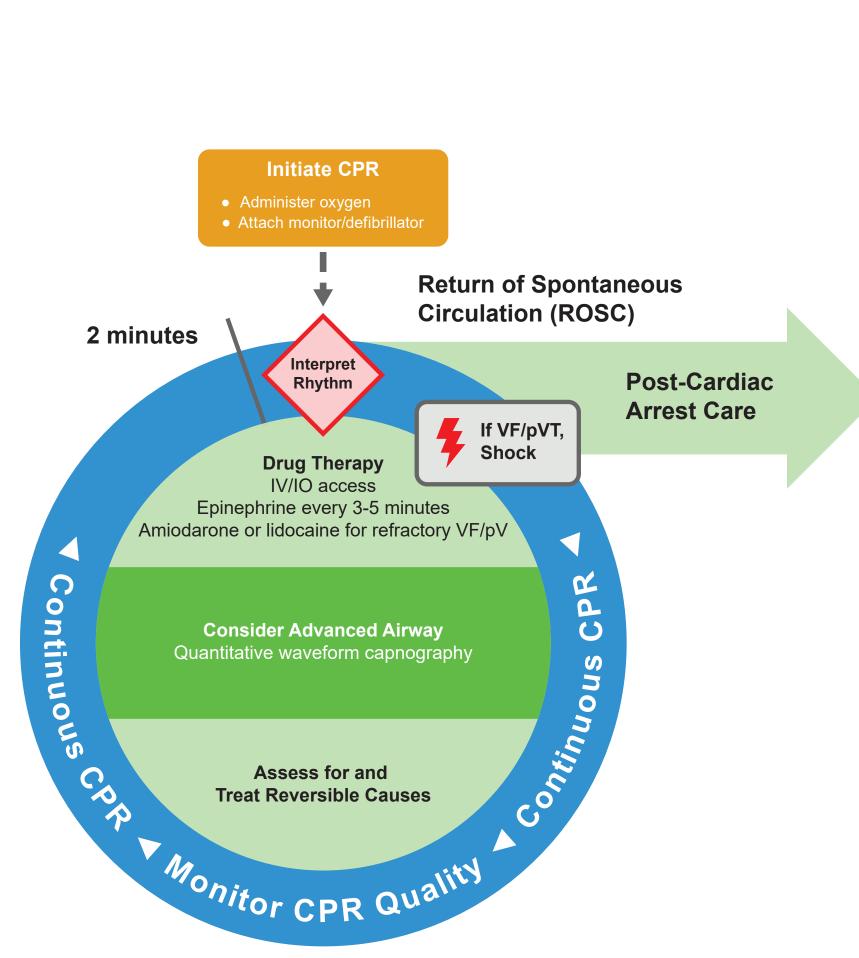
Cardiac Arrest Circular Algorithm



Further Your Knowledge!



All links connect to videos, articles, quizzes or other materials to enhance your learning experience.





- Push hard (at least 2–2.4 inches [5 cm]) and fast (100–120/min) and allow complete chest recoil.
- Minimize compression interruptions.
- Avoid excessive ventilation.
- Rotate compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, 30:2 compression-ventilation ratio.
- Quantitative waveform capnography
 - If ETCO₂ < 10 mm Hg, need to improve CPR quality.
- Intra-arterial pressure
- If relaxation phase (diastolic) pressure <20 mm Hg, attempt to improve CPR

Shock Energy for Defibrillation



- Biphasic: Manufacturer recommendation (e.g., 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

Medication Dose/Details



- Epinephrine IO/IV dose: Administer 1 mg every 3–5 minutes
- Amiodarone IO/IV dose: First dose: 300 mg bolus. Second dose: 150 mg.
- Lidocaine IV/IO dose: First dose 1 to 1.5 mg/kg. Second dose: 0.5 to 0.75 mg/kg

Advanced Airway



- Endotracheal intubation or supraglottic
- advanced airway Waveform capnography or capnometry
- to confirm and monitor ET tube placement • Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions (asynchronous)

Return of Spontaneous Circulation (ROSC)

- Abrupt sustained increase in ETCO_a (typically ≥ 40mm Hg)
- Ensure adequate oxygenation, ventilation and blood pressure
- Spontaneous arterial pressure waves with intra-arterial monitoring

Reversible Causes (Hs and Ts)

- Hypoxia
- Hypovolemia
- Hydrogen ion (acidosis)
- **H**ypo-/hyperkalemia
- Hypothermia
- **T**ension pneumothorax
- Tamponade, cardiac Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary