Shout for help/activate emergency response

Start CPR

- Give oxygen
- Attach monitor/defibrillator

Give oxygen
Attach monitor/defibrillator

2 minutes
Check rhythm
Return of spontaneous circulation (ROSC)

Drug therapy
IV/IO access
Epinephrine every 3–5 minutes
Amiodarone or Lidocaine for refractory VT/VF
Consider advanced airway

Quantitative waveform capnography
Treat reversible causes

Monitor CPR quality
Continuous CPR
Continuous CPR

Start CPR

Indication of spontaneous circulation (ROSC)
- Pulse and blood pressure
- Abrupt sustained increase of PETCO₂, 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 (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

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

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

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 PETCO₂ < 10 mm Hg, attempt to improve CPR quality

Drug therapy
- Epinephrine IV/IO Dose: 1 mg every 3–5 minutes
  First dose: 300 mg bolus
  Second dose: 150 mg
  First dose: 1–1.5 mg/kg
  Second dose: 0.5–0.75 mg/kg
- 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