Advanced Cardiovascular Life Support
Adult Cardiac Arrest Algorithm

CPR Technique
Depth: Hard & fast, 2in (5cm).
Rate: 100-120 per minute.
Ratio: 30:2 compressions to
breathe (If no advanced airway).
Attempt to minimize interruptions.
Rotate compressions provider
every 2 minutes or if fatigued.
Avoid excessive ventilation.
Capnography Evaluation:
If PETCO2 is <10mmHg
improve the CPR quality.
Intra-Arterial Pressure Evaluation:
If diastolic pressure is <20mmHg
improve the CPR quality.

Defibrillation
Monophasic: 360J
Biphasic: follow manufacturer
recommendations
e.g. first shock 120-200J.
If recommended joules is unknown,
use the maximum available.
Following shocks give equal joules
with higher joules considered.

Medication Therapy
Epinephrine:
1mg IV/IO every 3-5 minutes.
Amiodarone:
1st dose 300mg IV/IO bolus.
2nd dose 150mg IV/IO bolus.

Advanced Airway
Provide ETT or subglottic airway.
Confirm placement and monitor
with capnography or capnometry.
With an advanced airway, provide
1 breath every 6 seconds without
stopping chest compressions.

Return of Spontaneous Circulation
Palpable pulse and blood pressure.
Sustained improvement in PETCO2
 generally ≥ 40mmHg.
Intra-arterial monitoring showing
spontaneous arterial pressure waves.

Possible Causes
Acidosis
Cardiac tamponade
Coronary thrombosis
Hyperkalemia/Hypokalemia
Hypothermia
Hypovolemia
Hypoxia
Pulmonary thrombosis
Tension pneumothorax
Toxins