Advanced Life Support

**Unresponsive and
not breathing normally?**

Call Resuscitation Team

CPR 30:2
Attach defibrillator/monitor
Minimise interruptions

Assess rhythm

**Shockable
(VF/Pulseless VT)**

**Non-shockable
(PEA/Asystole)**

1 Shock
Minimise
interruptions

Return of
spontaneous
circulation

Immediately resume
CPR for 2 min
Minimise interruptions

Immediately resume
CPR for 2 min
Minimise interruptions

**IMMEDIATE POST –
CARDIAC ARREST
TREATMENT**
- Use ABCDE approach
- Aim for SaO_2 of 94-98%
- Aim for normal $PaCO_2$
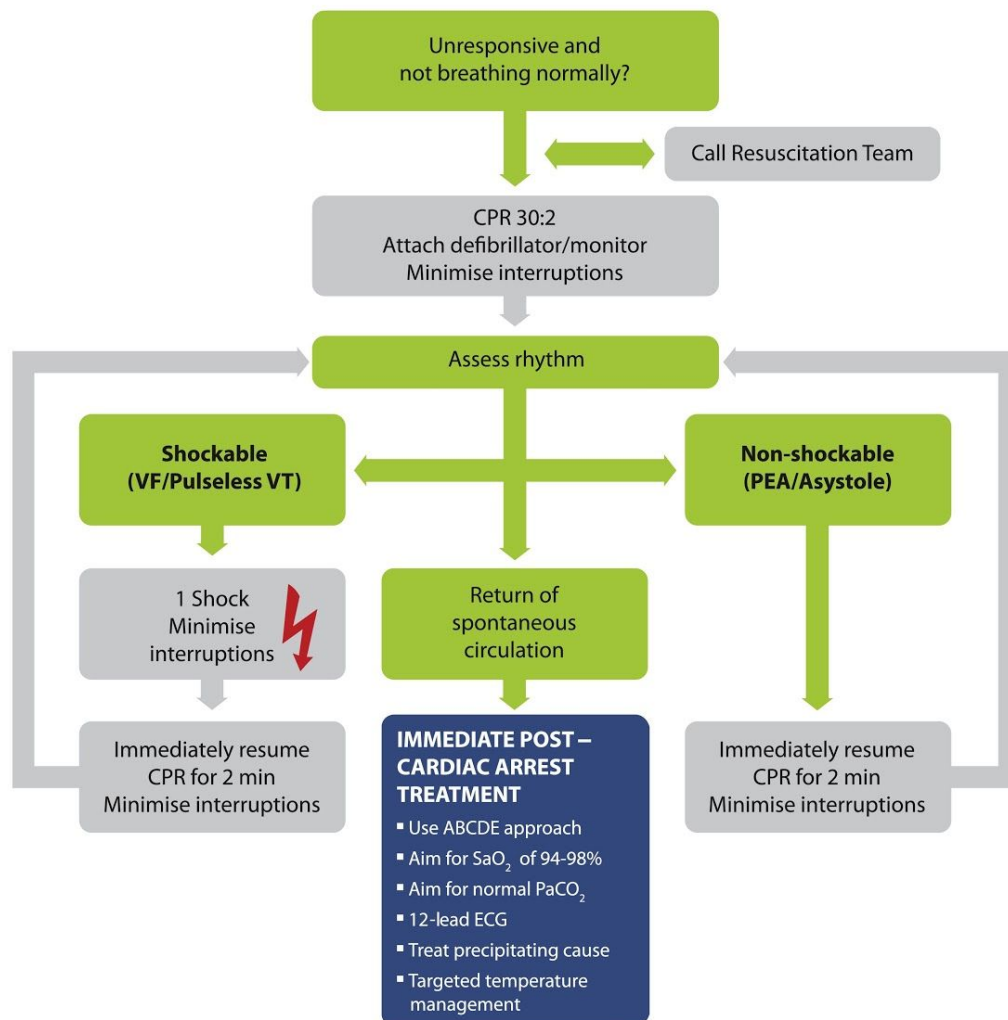- 12-lead ECG
- Treat precipitating cause
- Targeted temperature management

DURING CPR
- Ensure high quality chest compressions
- Minimise interruptions to compressions
- Give oxygen
- Use waveform capnography
- Continuous compressions when advanced airway in place
- Vascular access (intravenous or intraosseous)
- Give adrenaline every 3-5 min
- Give amiodarone after 3 shocks

TREAT REVERSIBLE CAUSES

Hypoxia — Thrombosis – coronary or pulmonary
Hypovolaemia — Tension pneumothorax
Hypo-/hyperkalaemia/metabolic — Tamponade – cardiac
Hypothermia/hyperthermia — Toxins

CONSIDER
- Ultrasound imaging
- Mechanical chest compressions to facilitate transfer/treatment
- Coronary angiography and percutaneous coronary intervention
- Extracorporeal CPR

Advanced life support algorithm (CPR-cardiopulmonary resuscitation; VF/Pulseless VT-ventricular fibrillation/pulseless ventricular tachycardia; PEA-pulseless electrical activity; ABCDE-Airway, Breathing Circulation, Disability, Exposure; SaO2-oxygen saturation; PaCO2-partial pressure carbon dioxide in arterial blood; ECG-electrocardiogram)

Soar J, Nolan JP, Bottiger BW, et al. European Resuscitation Council guidelines for resuscitation 2015. Section 3. Adult advanced life support. Resuscitation 2015;(95):100-47; used with permission