Maternal cardiac arrest algorithm

(based on Resuscitation Council UK Guidelines 2025)

ANNUAL UPDATE 2022 PROMPT PRactical Obstetric Multi-Professional Training



Confirm CARDIAC ARREST

Call maternal and neonatal resuscitation teams (2222/999) and obtain cardiac arrest trolley

Manual uterine displacement to the left

CPR 30:2
Attach defibrillator pads
Minimise interruptions (max. 5 sec)
Consider the need for PPE †

Assess rhythm

Shockable (VF/pulseless VT)

1 shock
Continue chest compressions while charging the defibrillator

Immediately resume CPR for 2 minutes minimise interruptions

Non-shockable (Asystole/PEA)

Immediately resume CPR for 2 minutes minimise interruptions

During CPR

- Ensure high quality CPR
- Minimise interruptions to CPR
- Give high-flow O_2
- Consider advanced airway
- Use waveform capnography
- Vascular access (IV or IO)
- Adrenaline 1mg IV/IO every 3–5 minutes (after 3rd shock if shockable)
- Prepare for birth (see below)
- Correct reversible causes*
- Amiodarone 300mg IV/IO only if shockable: after 3rd shock, plus a further 150mg IV/IO after 5th shock
- Consider extracorporeal CPR (e.g. ECMO)

If resuscitation is not immediately successful, carry out resuscitative hysterotomy (perimortem caesarean)

***Correct reversible causes (4 Hs, 4 Ts & 4 Ps):**

(Consider ultrasound assessment)

- **H**ypovolaemia
- **H**ypo/hyperkalaemia or metabolic abnormalities
- **H**ypoxia
- **H**ypothermia
- **T**hrombosis – coronary or pulmonary
- **T**oxins
- **T**ension pneumothorax
- **T**amponade – cardiac

4 Ps (pregnancy-specific)

- **P**re-eclampsia & eclampsia
- **P**uerperal sepsis
- **P**lacental & uterine complications
- **P**eripartum cardiomyopathy

Return of spontaneous circulation?

Immediate post cardiac arrest management

- Use ABCDE approach
- Oxygenate and ventilate (aim SpO_2 94–98%, normal $PaCO_2$)
- 12-lead ECG
- Treat precipitating cause
- Avoid hyperthermia (keep < 37.5 °C)

† PPE = personal protective equipment, e.g. FFP3 mask
Check latest guidance from Resuscitation Council UK