



1. VF/pulseless VT

Shockable pulseless cardiac arrest

- ➊ Press the red emergency button
- ➋ Commence CPR
- ➌ Shock patient as soon as defibrillator arrives (200J)
- ➍ Who is the “hands-off” leader? Assign roles.
- ➎ Make two further defibrillation attempts (200J) within 2 minutes
 - Continue CPR
 - “Hard and fast” compressions 100/min
 - Minimal interruptions
 - 8 breaths/min, do not overinflate
 - Give adrenaline bolus (Consider MAP/CVP/capnograph with CPR)
 - or give continuous central infusion to achieve SBP 80 mmHg
 - Give amiodarone
 - Defibrillate (again) if VF/pVT
 - Rhythm (and pulse check) may occur after 15-30 seconds with invasive monitoring
 - Shock at 200J
 - Resume CPR immediately after each shock
 - Have two or three team members prepare for re-sternotomy (CHKLST 13)
- ➏ Make 777 adult emergency chest opening call (see over)
- ➐ Consider and exclude the 5Hs and 5Ts (see across, do a blood gas)

Critical CHANGES

If **PEA** develops: GO TO ⇒ CHKLST 3
If **Bradycardia/asystole** develops: GO TO ⇒ CHKLST 2

During CPR

Airway	Assess and secure with ETT
Ventilation	Ventilate at 10 breath/min and assess capnograph
Circulation	Confirm IV or IO access, IV fluids wide open
IABP	Switch to pressure trigger
Assign roles	CHKLST 13 chest re-opening

DRUG DOSES and treatments

Give drugs via central line if available

Adrenaline: 10 mls of 1 in 10,000 bolus 1.0 mL and increase bolus size to 2 mL, 5 mL etc depending on effect

ANTIARRHYTHMICS

Amiodarone *Bolus:* 300mg IV (2 ampoules)
Magnesium: *Bolus:* 10 mmol IV (1 ampoule) for polymorphic VT

5Hs & 5Ts

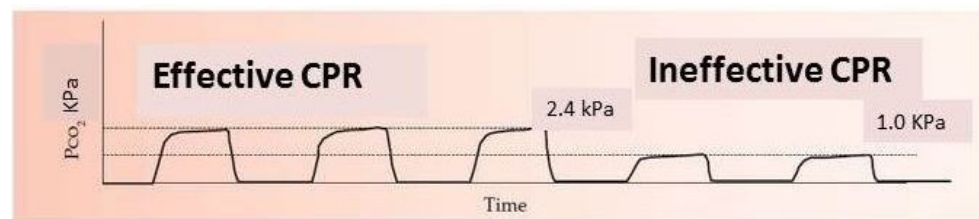
Hypovolaemia (CVP Low)	Tension pneumothorax (CVP High)
Hypoxia (CHKLST 6)	Tamponade (CVP High)
Hyper/hypokalaemia/ metabolic disorders	Toxins (narcotic, β/Ca Channel blocker, local anaesthetic)
Hypoglycaemia	Thrombosis pulmonary (CVP High)
Hypothermia/hyperthermia	Thrombosis coronary



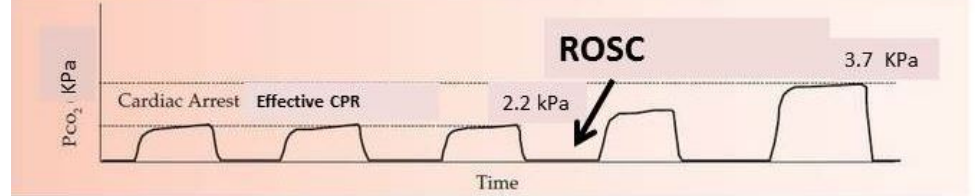
DEFIBRILLATOR instructions

1. Select ENERGY **200J** on defibrillator
2. Apply pads to chest & connect to defibrillator
3. Press **CHARGE** (while CPR continues)
4. Reassure person doing CPR that they should continue compressions.
5. Assess rhythm if shockable:
6. Say **Stand Clear, ensure all staff off patient** and press **SHOCK**
7. If non shockable dump the charge and continue CPR

End tidal CO₂ levels give some indication of the adequacy of the CPR.
A flat line on capnography = ETT in oesophagus
With effective CPR the ETCO₂ usually be > 2.6 KPa



CPR may be ineffective because chest compressions are < 1/3 of the AP thoracic distance, they are too slow, because there is circulatory obstruction (tamponade/pneumothorax) or profound hypovolaemia. Low ETCO₂ levels during CPR are associated with worse outcomes.



777 Emergency chest reopening call

- **SAY** 'There is an emergency in Cardiovascular ICU – ward 48 and the emergency chest opening team is required'
- State whether the intensivist and the surgeon need to be called by the call center (if either or both are not present they need to be called – preferably by you if time allows but if not by the call centre)
- Indicate whether you need the perfusionist to attend

Delegate one person to ensure that there are 4 units of red cells on the CVICU for this patient, if there are not order them urgently from the blood bank x24014

Call Centre Calls the Following Staff

Personnel on Group Page

- Level 4 Anaesthetic Registrar
- Charge nurse manager
- CTSU Surgical Registrar
- CTSU Theatre Nurse 1st on call (m-f 20:30 – 07:30 + w/e)
- CTSU Theatre Nurse Co-ordinator (m-f 07:30 – 20:30)

Contact Centre makes Separate Phone Calls (unless told not to) to

- Surgeon (on call)
- CVICU Consultant
- Perfusionist if requested