

Key interventions

After 1st cycle: mechanical CPR
After 2nd cycle: echo & fluoroscopy
After 3rd cycle: adrenaline 1mg iv
If shockable: amiodarone 300mg iv
After 4th cycle: prolonged arrest physiology

Cardiac Arrest State reason if known

Assess rhythm

Special circumstances

All PCI in cardiac arrest should be performed with mechanical CPR.
The whole team should wear lead.
TAVI : Consider ostial occlusion, annulus disruption, vascular bleed.
If PE considered likely : echo, thrombolysis, CT thorax, embolectomy

Shockable
VF/Pulseless VT

Up to
3 stacked shocks
then single shocks

If no ROSC start CPR
30:2 for 2 minutes

Asystole
extreme bradycardia

Percussion pacing
external pacing
temporary wire

If no ROSC start CPR
30:2 for 2 minutes

PEA
ensure pacing is off

Immediately perform
CPR 30:2 for 2 minutes

Established arrest

CALL ARREST TEAM

Airway Breathing:

100% oxygen, protect airway.
Consider fluoroscopy for pneumothorax.
Obtain central venous access.
Take a blood gas

Circulation

Is there a haemothorax, retroperitoneal haematoma, pericardial collection, or aortic dissection?

Consider anaphylaxis

adrenaline 0.5mg IM, or 50mcg IV

Consider extracorporeal CPR

Prolonged arrest parameters

We recommend that teams consider recording the following parameters during prolonged cardiac arrest. Green, amber and red indicate potential impact of the physiological parameters achieved during cardiac arrest on ROSC and could be used to guide future research.

Systolic BP	60	70	80
Diastolic BP	25	30	40
ETCO ₂ {kPa}	1.3	2.0	2.7
pH	7.0	7.1	7.2
Base Excess	-10	7.5	-5
SaO ₂ %	70	80	90

Adjust CPR device, modify ventilation, consider inotropes, correct acidosis, optimize volume to achieve goals.

Return of spontaneous circulation

ABCDE approach

Keep SpO₂ 94-98%
Normalise PaCO₂

Consider inotropic support

Consider angiogram and Echo once ROSC established

Consider long term follow up of patients who arrest in the catheter lab to identify neurological and psychological sequelae