



## STAGE 1 ELIGIBILITY

### ASSESS PATIENT FOR ELIGIBILITY:

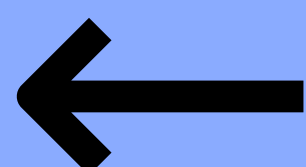
#### Inclusion

Age < 70  
Witnessed cardiac arrest  
Bystander CPR within 5 minutes  
Rhythm VT, VF\*  
Total time in cardiac arrest <60min  
(This does not include time spent in ROSC)

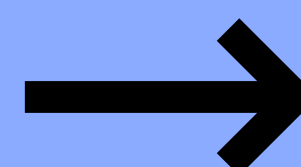
\*PEA - Joint clinician decision on a case by case basis

#### Exclusion

Persistent asystole without signs of life  
Terminal illness due to malignancy / chronic disease  
Significant neurological impairment  
End stage organ failure (cardiac, liver, renal)  
Multiple past coronary revascularizations  
Aortic dissection  
Severe pulmonary hypertension  
Major trauma / Active major haemorrhage  
Likely hypoxic arrest secondary to COVID-19 Lung disease



**ALL INCLUSION CRITERIA MET  
WITH NO EXCLUSION CRITERIA?**



**YES**

Continue to stage 2  
ECMO Considered

**NO**

Continue standard ALS  
do NOT progress to  
ECMO

## STAGE 2 ECMO CONSIDERED

### OPTIMISE PATIENT FOR ECMO:

#### AIRWAY

Secure airway with ETT

#### BREATHING

Hand ventilate

#### CIRCULATION

LUCAS device  
1L 0.9% NaCl Stat  
Allow 30s pause for  
femoral line insertion  
URGENT ABG

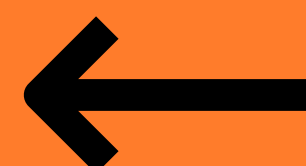
#### FEMORAL LINES

Arterial and venous  
sheath insertion

### CHECK FOR INDICATORS OF POOR OUTCOME:

#### INDICATORS OF POOR OUTCOME:

ETCO2 <10mmHg  
Lactate >18  
pO2 <50mmHg or SpO2 <85%  
Bicarbonate <10mmHg



**LESS THAN 2 INDICATORS OF POOR  
OUTCOME?**



**YES**

Continue to stage 3  
ECMO Confirmed

**NO**

Continue standard ALS  
do NOT progress to  
ECMO

## STAGE 3 ECMO CONFIRMED

### ESTABLISH ECMO:

#### ECMO MODIFICATION TO ALS

Continuous mechanical chest compressions  
No rhythm checks  
Commence adrenaline infusion  
(3mg adrenaline made up to 50ml 0.9% NaCl at 50ml/hr)

#### CANNULATION

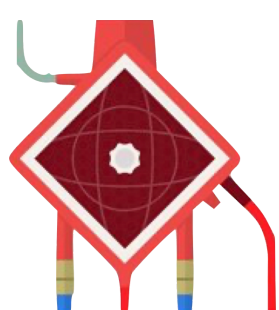
Heparin bolus 3000 units IV pre cannulation  
Proceed to ECMO cannula insertion:

- ARTERIAL 17Fr
- VENOUS 19Fr (Female), 21Fr (Male)

Prepare heparin (10,000 units heparin / 1L 0.9% NaCl in sterile bowl with catheter tip syringe ready)  
Heparin bolus 5000 units IV post cannulation

## STAGE 4 ECMO ESTABLISHED

### EXPEDITE DEFINITIVE TREATMENT:



Connect to CardioHelp  
Commence ECMO



Direct to Cath Lab



Consider CT pan scan



Standard ICU ECMO care  
pathway