



2021

Advanced Cardiac Arrest Algorithm for Suspected Communicable Disease (Respiratory)



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HAZARDS

Ensure the scene is safe → Alert for Communicable disease → Don appropriate PPE → Pre-cardiac arrest discussion on DNAR

HELLO

- Look from a distance, keep others safely away
- Do not feel for breathing, but look for visible chest rise and feel for pulse

HAS PULSE AND BREATHING

- Place in recovery position
- Reassess continuously
- Maintain "Crowd control" at least 2m from the patient

HELP

Call either 112 or local ambulance, Call for assistance and Defib/AED

Emergency No:

HAS PULSE BUT NO EFFECTIVE BREATHING

Apply a tight seal using a two hand technique on the BVM with a viral filter

Give rescue breaths

- Adult: every 6 seconds
- Child: every 3 seconds
- Infant: every 2 seconds

No Pulse or not sure
Pulse rate <60 in children and infants

- Single rescuer** – cover patient's face with surgical mask or cloth folded 3 times
- Team rescuer** – cover patient's face with BVM + tight seal + filter

AIRWAY MANAGEMENT

- NB – highest risk of viral contamination to rescuers
- Rescuer must have full PPE
- Early definitive airway with attachment to ventilator
- Viral filter protection placed on BVM and ventilator
- Video laryngoscopy is recommended to distance rescuer from the patients mouth and nose
- Cover the patient's mouth and nose after the airway is secured

START CHEST COMPRESSIONS

- Push Hard and Fast (almost 2/second)
- Ensure full chest recoil
- Minimise interruptions
- If witnessed arrest, complete 200 compressions with tight fitting non-rebreather mask, while waiting for ECG analysis

HIGH QUALITY CPR

- Compression rate 100-120 per minute
- Avoid excessive ventilation
- 1 breath every 6 seconds if advanced airway
- Change or switch compressors every two minutes
- Consider capnography and arterial monitoring

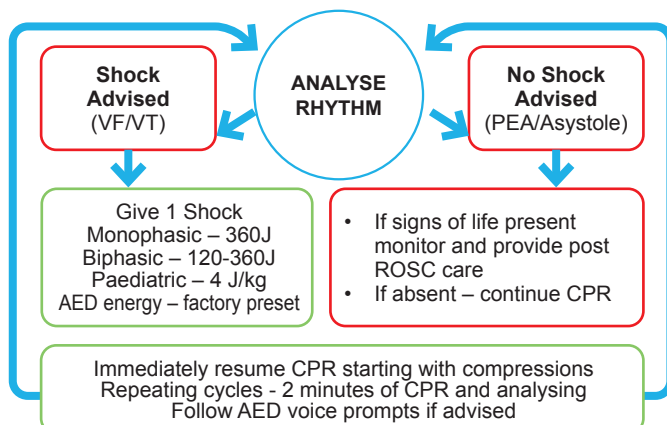
BREATHS

- Delay breaths with continuous compressions until full PPE donned for airway manager/resus team
- Attempt 2 breaths at 1 breath/second with 100% oxygen
- Adult ratio 30:2 | Children 30:2 if alone or 15:2 2-rescuer
- Continue until AED/defibrillator arrives and attach immediately

ADVANCED CONSIDERATIONS

- Correct the cause as soon as possible
- Avoid prolonged resuscitations
- Obtain IO/IV access, take ABG/VBG
- Early intubation with viral protection due to aerosol generation
- Continuous chest compressions after definitive airway – place on ventilator as soon as possible with viral protection (adjust alarm settings)
- Consider Adrenaline and other anti-arrhythmics
- Adrenaline 1mg every 3-5 mins (0.1 mls/kg of 1:10 000 in paed)

Attach AED/Defibrillator immediately



CONTRIBUTORY CAUSES

- Hypoxia
- Hypovolaemia
- Hypothermia
- Hydrogen ion (Acidosis)
- Hypo/Hyperkalaemia
- Hypoglycaemia
- Tension Pneumothorax
- Tamponade (Cardiac)
- Toxins
- Trauma
- Thrombosis (Coronary)
- Thrombosis (Pulmonary)