

May 2020

# Paediatric Advanced Cardiac Arrest Algorithm for Covid-19 Pandemic

RESUSCITATION COUNCIL
0= SOUTHERN AFRICA

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### PREPARATION + HAZARDS

Advisable to have pre-arrest readiness teams, to not delay resus → Pre- cardiac arrest discussion on DNAR Ensure environment is safe → Don all appropriate PPE → Alert for Covid 19

### 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
- Look from a distance for continued breathing and reassess regularly
- Maintain "Crowd control" at least 2mfrom the child

### **HELP**

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

**EMERGENCY NUMBER** 

No pulse or not sure Pulse rate <60/min

### HAS PULSE BUT NO EFFECTIVE BREATHING

Give rescue breaths
 Two handed mask technique with tight seal, viral filter

between mask and

self- inflating bag

- Try to get definitive airway ASAP
- Supraglottic or Video laryngoscopy

Single rescuer – cover face with surgical mask/3 ply cloth Team rescuer – cover face with BVM + tight seal + filter

## START CHEST COMPRESSIONS

- Push Hard and Fast (almost 2/second)
- Ensure full chest recoil
- Minimize interruptions
- If suspected cardiac cause of arrest, continuous compressions while waiting ECG analysis with tight fitting non-rebreather mask @ 100% FiO<sub>2</sub>

#### **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 pt's mouth and nose (if competent) – otherwise SGD (LMA/iGel)
- Cover the patient's mouth and nose after the airway procedure

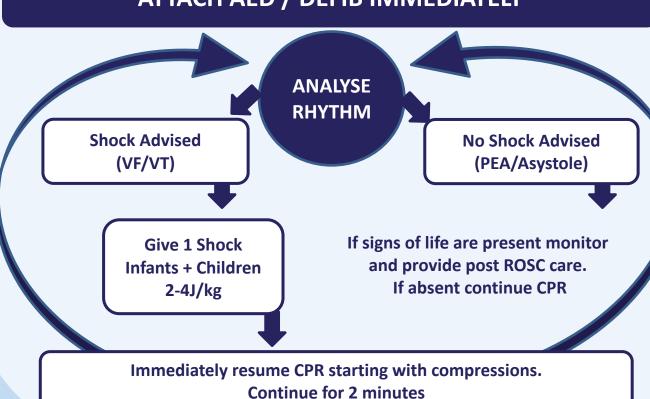
### **BREATHS**

- Early intubation is preferable
- Delay breaths with continuous compressions until full PPE donned for airway manager
- Attempt 2 breaths at 1 breath/second with 100% Oxygen
- Infants & Children 30:2 if alone, 15:2 if 2-rescuer
- Continue until AED/Defib arrives and attach immediately

### HIGH QUALITY CPR

- Compression rate 100 120 per minute
- Avoid excessive ventilation
- 1 breath every 3-5 seconds if advanced airway
- Rotate compressors every 2 minutes (or 1 min if full PPE and tiring)
- Consider capnography and arterial monitoring

#### ATTACH AED / DEFIB IMMEDIATELY



#### **ADVANCED CONSIDERATIONS**

- Correct the cause as soon as possible
- Avoid prolonged resuscitations (if no cause found)
- 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 0.1 mls/kg of 1:10 000 (1mg diluted with 9mls N/S)

#### **CONTRIBUTORY CAUSES**

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