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<th>Date</th>
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<tr>
<td>Purpose</td>
<td>To ensure consistent management of Paediatric patients who require resuscitation.</td>
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<tr>
<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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The differences between the paediatric and adult resuscitation CPGs reflect the different aetiologies of cardiorespiratory arrest between children and adults, as well as their distinct anatomy and physiology. Most paediatric arrests are caused by hypoxaemia, hypotension, or both, with the vast majority having an initial cardiac rhythm of profound bradycardia or asystole.\[1\] The incidence of VF or pulseless VT in these patients is approximately 10%.\[2\]

The mainstays of paediatric resuscitation include:

- Ensure high quality continuous CPR (depth, rate and recoil).
- Give oxygen and ventilate.
- Correct reversible causes.
- Plan actions before interrupting CPR.
- Synchronisation of ventilation via an advanced airway (e.g. LMA) throughout continuous compressions.

Clinical features

- No signs of life:
  - unresponsive
  - not breathing normally
  - pulse cannot be confidently palpated within 10 seconds, OR

- Signs of inadequate perfusion:
  - unresponsive
  - pallor or central cyanosis
  - pulse less than:
    - 60 bpm in an infant (≤ 1 year)
    - 40 bpm in a child 1–12 years

Additional information

- The first rhythm analysis for paediatrics ≥ 1 year is to be conducted using the defibrillator in AED mode. If a shock is recommended, appropriately trained officers have the option of switching to manual mode to select the appropriate weight based joule setting prior to defibrillation. The method used (AED or Manual mode) for all subsequent analyses is at the discretion of the Paramedic.

- Patients may present with an infrequent, irregular, gasping inspiratory effort (agonal respiration). This is common in the first few minutes of a cardiac arrest and should not delay the commencement of resuscitation efforts.\[3\]

- If using an LMA, breaths should be delivered during a pause in chest compressions.\[4\]
Note: Officers are only to perform procedures for which they have received specific training and authorisation by the QAS.

**IMPORTANT:** Both officers are to confirm the patient's cardiac rhythm every 2 mins. in the non-traumatic cardiac arrest no laryngoscopy, LMA, ETT or IV access is to be attempted in the first 6 mins after QAS arrival UNLESS glottic foreign body is suspected.

**CPG: Paramedic Safety**
**CPG: Standard Cares**
**CPG: Resuscitation - General guidelines**
**CPG Resuscitation - Special circumstances**

- Potential airway obstruction (foreign body)?
  - Y
  - CPG: Airway obstruction (foreign body)
  - N

- Immediately commence CPR
  - Single officer (30:2). Two officer (15:2)

- Apply pads and commence immediate rhythm analysis (< 1 year Manual defibrillation mode / ≥ 1 year AED)

- Shockable rhythm? VF/VT
  - Y
  - Deliver single DCCS*
  - N
  - PEA/asystole

- Commence 2 minutes of CPR.
  - During CPR consider:
    - Basic airway adjuncts
    - CPR metronome (child setting)
    - corPatch CPR sensor (≥ 8 years)
    - Switching from AED to Manual defibrillation mode

- Proceed only after 3 x 2 minute cycles of CPR have been performed

- Continue with 2 minutes of CPR at 15:2
  - During CPR consider:
    - LMA
    - IV access
    - Adrenaline
    - Reversible causes*

  - For refractory VF/VT consider:
    - Amiodarone

  - For prolonged resuscitation consider:
    - ETT (≥ 10 minutes)

- Manage as per:
  - CPG: ROLE
  - Signs of life?
  - N
  - Manage as per:
    - CPG: ROSE
  - Y

- Manage as per:
  - CPG: Airway obstruction (foreign body)

* **Paediatric Defibrillation**
  - Corpuls3 Manual Mode
    - ≥ 6 years (25 kg) – 200 J (via adult pads)
    - < 6 years – 4 J/kg (via paediatric pads)

  - Corpuls3 AED Mode
    - ≥ 6 years (25 kg) – 200 J (via adult pads)
    - ≥ 1 year (10 kg) to < 6 years – 50 J (via paediatric pads)
    - < 1 year 4 J/kg Manual Mode (via paediatric pads) – the use of AED Mode is not recommended for patients < 1 year of age.

* **Reversible causes**
  - Hypoxia
  - Hypothermia
  - Hypovolaemia
  - Hypo/hyperkalaemia
  - Hydrogen ion (acidosis)
  - Tension pneumothorax
  - Tamponade
  - Toxins
  - Thrombosis