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**Clinical Practice Guidelines: Resuscitation/Adult**

<table>
<thead>
<tr>
<th>Policy code</th>
<th>CPG_RE_RA_0120</th>
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<tbody>
<tr>
<td>Date</td>
<td>January, 2020</td>
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<tr>
<td>Purpose</td>
<td>To ensure consistent management of adult patients who require resuscitation.</td>
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<tr>
<td>Scope</td>
<td>Applies to Queensland Ambulance Service (QAS) clinical staff.</td>
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<tr>
<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<tr>
<td>Population</td>
<td>Applies to all ages unless stated otherwise.</td>
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<td>Source of funding</td>
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This adult resuscitation CPG is to be used for patients who are older than 12 years of age. It includes both basic and advanced life support. The key interventions that contribute to a potentially successful outcome after a cardiac arrest are conceptualised in the chain of survival:[1]

- Early recognition and call for backup
- Early CPR that emphasises chest compressions
- Rapid defibrillation if indicated
- Effective advanced life support
- Integrated postcardiac arrest care.

The principles of adult resuscitation are:

- Effective teamwork and role delineation allowing concurrent actions to be performed
- Ensuring high quality continuous CPR (depth, rate and recoil)
- Rapid defibrillation if indicated
- Planning actions before interrupting CPR
- Providing supplemental oxygen
- Synchronisation of ventilation via an advanced airway (e.g. LMA or ETT) throughout continuous compressions
- Correction of reversible causes.

SPECIAL NOTE: No ETT under ten minutes of resuscitation unless LMA failure.
Clinical features

- No signs of life:
  - unresponsive
  - not breathing normally
  - carotid pulse cannot be confidently palpated within 10 seconds, OR
- Signs of inadequate perfusion:
  - unresponsive
  - pallor or central cyanosis
  - pulse less than 40 beats per minute in adult (>12 years of age)

Risk assessment

- If there is any uncertainty resuscitation should be commenced.

Additional information

- The first rhythm analysis is to be conducted using the defibrillator in AED mode. 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.[2]
- Measurement of EtCO₂ in patients with an advanced airway is an effective non-invasive indicator of cardiac output during CPR and may be an early indicator of ROSC.[3]
- Interventions that have unquestionably contributed to improved survival after cardiac arrest are uninterrupted high quality chest compressions and early defibrillation of ventricular fibrillation (VF) / ventricular tachycardia (VT). No resuscitation drugs or advanced airway interventions have been shown to increase survival to hospital discharge after cardiac arrest.[4]
- If there is any doubt regarding the interpretation of the rhythm during resuscitation the ANALYSE function of the corel3 or LIFEPAK®12 should be utilised to assist in appropriate and timely defibrillation of shockable patients.
IMPORTANT: Clinicians are to confirm the patient’s cardiac rhythm every 2 minutes. In the non-traumatic cardiac arrest no laryngoscopy, LMA, ETT or IV access is to be attempted in the first 6 minutes after QAS arrival UNLESS glottic foreign body is suspected.

Note: Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.

CPG: Clinician safety
CPG: Standard cares
CPG: Resuscitation - General guidelines
CPG: Resuscitation - Special circumstances

Potential airway obstruction (foreign body)?

- Y: Manage as per:
  - CPG: Foreign body airway obstruction

Immediately commence CPR 30:2

Apply pads and commence immediate AED rhythm analysis

Shockable rhythm VF/VT?

- Y: Deliver single DCCS*
- N: PEA/asystole

Commence 2 minutes of CPR at 30:2

DURING CPR CONSIDER:
- Basic airway adjuncts
- CPR metronome
- corPatch CPR sensor
- Switching from AED to Manual defibrillation mode

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

Perform 3 x 2 minute CPR cycles with rhythm assessment after each cycle

Continue with 2 minutes of CPR at 30:2

CONSIDER:
- Mechanical Chest Compression Device application
- 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?

- Y: Manage as per:
  - CPG: ROSC

"Manual Defibrillation Sequence"

LIFEPAK® 12
- 200 J
- 300 J
- 360 J
corpus3
- All shocks 200 J

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

Manage as per:

CPG: ROSC