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Resuscitation – General guidelines

Commencement of cardio-pulmonary resuscitation

In cases of cardio-pulmonary arrest, cardio-pulmonary resuscitation is to be commenced in accordance with the relevant guidelines set out in the following CPGs:

- **Adult** (> 12 years of age)
- **Newly born** (immediately postpartum)
- **Paediatric** (≤ 12 years of age)
- **Special circumstances:**
  - Asthma or severe chronic obstructive pulmonary disease (COPD)
  - Decompression illness
  - Hypothermia
  - Morbid obesity
  - Pacemaker/Implantable Cardioverter Defibrillator (ICD) in situ
  - Paramedic witnessed cardiac arrest (of suspected cardiac aetiology)
  - Pregnancy
  - Tracheostomy patients
- **Traumatic**

Using bystanders to perform CPR

In some circumstances it may be appropriate to use bystanders to perform cardiac compressions. This can assist paramedics by allowing them to perform other clinical tasks required for the patient, especially when there is only a single responder or single crew on scene.

Before using a bystander to perform CPR the paramedic should ensure that they:

- Are able and willing to assist in performing cardiac compressions; and
- Are suitably trained or able to demonstrate appropriate technique under QAS guidance

Bystanders assisting with CPR should be offered appropriate PPE such as gloves, etc.

Withholding cardio-pulmonary resuscitation

In some circumstances it would be appropriate to withhold the commencement of cardio-pulmonary resuscitation. These circumstances include any one of the following:

- Where the patient is exhibiting obvious signs of death such as:
  - Decomposition and/or putrefaction;
  - Hypostasis; or
  - Rigor mortis
• Where the patient has sustained injuries that are totally incompatible with life:
  - Decapitation;
  - Cranial and cerebral destruction;
  - Hemicorporectomy (or similar massive injury);
  - Incineration; or
  - Foetal maceration.
• Where performing CPR may endanger the life, health or safety of the paramedic.
• Where a lawful direction to withhold cardio-pulmonary resuscitation has been provided to the paramedic.

**Rapid discontinuation criteria**

Cardio-pulmonary resuscitation may be discontinued or withdrawn before the expiration of 20 continuous minutes if the following is satisfied:

• The patient was observed to be unresponsive and pulseless for at least ten minutes prior to the arrival of the paramedic;
• No cardio-pulmonary resuscitation was provided during this period;
• The patient is exhibiting signs of life extinct (see below); and
• The patient’s cardiac rhythm is asystole.

Cardio-pulmonary resuscitation may also be discontinued before the expiration of 20 continuous minutes in circumstances where there is a lawful direction issued to the paramedic to discontinue/withdraw resuscitation.

**Discontinuation/withdrawal of cardio-pulmonary resuscitation**

**General discontinuation criteria**

Cardio-pulmonary resuscitation is to be administered by the paramedic for a period of no less than 20 continuous minutes after which it may be discontinued or withdrawn if the following are present:

• The patient is exhibiting signs of life extinct (see below); and
• The patient’s cardiac rhythm is asystole or there is pulseless electrical activity (PEA) at a rate less than 10 per minute.

If the patient remains in a shockable cardiac rhythm (ventricular fibrillation or ventricular tachycardia) for a period of 30 continuous minutes, consult the QAS Clinical Consultation and Advice Line for directions.

**Lawful directions to withhold or withdraw cardio-pulmonary resuscitation**

Cardiopulmonary resuscitation is a ‘life-sustaining measure’ as defined in the *Powers of Attorney Act 1998* (Qld) and the *Guardianship and Administration Act 2000* (Qld).

A life-sustaining measure is health care intended to sustain or prolong life and supplants or maintains the operation of vital bodily functions that are temporarily or permanently incapable of independent operation.

Cardiopulmonary resuscitation and other life-sustaining measures can be withheld, or if commenced, can be withdrawn in each of the following circumstances:
(i) Medical Decision (Acute Emergency)\(^{[2]}\)

A direction issued by a medical practitioner in circumstances where:

- the commencement or continuation of cardiopulmonary resuscitation or another life-sustaining measure would be inconsistent with good medical practice; and
- consistent with good medical practice, the decision to withhold or withdraw the life-sustaining measure should be taken immediately.

(ii) Patient Decision (Advance Health Directive)\(^{[3]}\)

If the patient has made an ‘advance health directive’ giving direction to withhold or withdraw the specific life-sustaining measure that is required, and to do so in the circumstances that have arisen.

**NOTE:** For the direction in the advance health directive to apply, the following conditions must be satisfied:

- The patient has impaired decision making capacity;\(^{[4]}\) and
- There is no reasonable prospect that the patient will regain capacity for health matters;\(^{[5]}\) and
- The patient is suffering from one of the following conditions:\(^{[6]}\)
  - a terminal illness or condition that is incurable or irreversible and, in the opinion of a doctor treating the patient, and one other doctor, the patient may reasonably be expected to die within one year;
  - a persistent vegetative state involving severe and irreversible brain damage;
  - permanently unconscious and has brain damage so severe that there is no reasonable prospect of the patient regaining consciousness; or
  - an illness or injury of such severity that there is no reasonable prospect of recovery.

The paramedic should sight the original or certified copy of the patient’s Advance Health Directive and documentary evidence ensuring that the conditions (set out in the *Powers of Attorney Act* and referred to above), have been satisfied.\(^{[7]}\)

(iii) Health Attorney or Guardian’s Decision

If the patient’s ‘health attorney’ or tribunal appointed ‘guardian’ provides consent to withhold or withdraw the life-sustaining measure.\(^{[8]}\)

**NOTE:** Consent from a health attorney or guardian cannot operate unless the health provider reasonably considers that the commencement or continuation of the life-sustaining measure for the patient would, having regard for all the circumstances, be inconsistent with good medical practice.\(^{[9]}\)

Good Medical Practice

Decisions to withhold or withdraw cardiopulmonary resuscitation and other life-sustaining treatments from patients that lack decision making capacity, must be consistent with standards of good medical practice for the patient, having regard for the clinical circumstances and the location of the patient at the time.

The *Powers of Attorney Act 1998* and the *Guardianship and Administration Act 2000* define good medical practice as that which applies to the medical profession in Australia, having regard to the recognised medical standards, practices and procedures of the profession and the recognised ethical standards of the medical profession.\(^{[10]}\)
**Documents that may be available at the scene**

In addition to enduring documents such as an Advance Health Directive, a range of clinical documents may be available and provided to the paramedic at the scene. For example, a Queensland Health Acute Resuscitation Plan (ARP), Statement of Choices or other documents that include clinical information and medical directions provided by the patient’s private medical practitioner.

A Queensland Health ARP will include the following information: clinical assessment; capacity assessment and diagnosis; the patient’s express wishes regarding resuscitation (if known); a resuscitation plan with information about the treatment that should be provided and not provided in the event of an acute deterioration; medical authorisation for that treatment; and details regarding any consent that was obtained from the patient or health attorney when the ARP was completed.

The information provided in the ARP or Statement of Choices (and other clinical documents if completed to the same comprehensive standard), will assist the paramedic when determining if a lawful direction to withhold or withdraw a life-sustaining measure, in accordance with the CPG, exists. See below:

- **Medical Decision:** evidence in support of the decision that the commencement or continuation of life-sustaining measures would be inconsistent with good medical practice.
- **Patient Decision (Advance Health Directive):** evidence that the conditions required under the *Powers of Attorney Act* and set out in this CPG, have been satisfied.
- **Health Attorney or Guardian’s Decision:** evidence that the consent provided by the health attorney or guardian to withhold or withdraw life-sustaining measures, is not inconsistent with good medical practice.

**Documentation**

The following information **must** be recorded in the patient’s clinical record (the eARF):

If the decision is made by the **paramedic** in accordance with the discontinuation criteria set out above, the record must include:

- the identity of the paramedic who made the decision; and
- the clinical circumstances and clinical findings enabling the decision to withhold or withdraw the measure in accordance with the discontinuation criteria set out in this CPG.

If the decision is made by a **medical practitioner** in an acute emergency, the record must include:

- the identity and contact details of the medical practitioner; and
- the clinical circumstances enabling the decision to withhold or withdraw the measure on the basis of good medical practice; and to do so immediately.

If the decision is made in response to a direction in the patient’s **Advance Health Directive**, the record must include:

- the direction as it is provided in the Advance Health Directive and sighted by the paramedic;
- evidence that the additional conditions (set out in the *Powers of Attorney Act* and reproduced in the CPG) have been satisfied; and
- details of the clinical assessment which would demonstrate that the direction applied in the current circumstances.
Recognition of life extinct (ROLE) criteria

The following criteria must be present before a determination can be made that life is extinct:

- No palpable carotid pulse;
- No heart sounds heard for 30 continuous seconds;
- No breath sounds heard for 30 continuous seconds;
- Fixed dilated pupils; and
- No response to centralised stimuli.

No clinical procedures to be performed following recognition of life extinct

Once it is determined that life is extinct, all resuscitation must be immediately ceased. It is unacceptable to continue resuscitation, perform any invasive procedures, or implement any form of treatment, if the performance of the procedure, or the implementation of the treatment, is for the sole purpose of affording the paramedic the opportunity to acquire and/or maintain clinical competencies.

Data collection and research

All cases attended by QAS officers which involve a cardiac arrest at any stage during the case, are subject to mandatory specific data collection. This includes all cases where paramedics have:

- Withheld the commencement of cardio-pulmonary resuscitation under the rapid discontinuation criteria;
- Where resuscitation has been attempted and discontinued under general discontinuation criteria, or
- In instances where patient is transported to a receiving facility.

If the decision is made in response to consent provided by the patient’s health attorney or guardian, the record must include:

- The identity of the attorney or guardian;
- Specific details of life sustaining measures for which the attorney or guardian is providing consent to withhold or withdraw;
- Details of the clinical assessment and clinical circumstances; and
- The opinion of the health provider that the decision to withdraw or withhold life-sustaining measures in these circumstances is consistent with good medical practice.

Data collection and research

All cases attended by QAS officers which involve a cardiac arrest at any stage during the case, are subject to mandatory specific data collection. This includes all cases where paramedics have:

- Withheld the commencement of cardio-pulmonary resuscitation under the rapid discontinuation criteria;
- Where resuscitation has been attempted and discontinued under general discontinuation criteria, or
- In instances where patient is transported to a receiving facility.

The submission of data is the responsibility of the primary patient care officer and must include the completion of a Death and Cardiac Arrest Report Form (DCARF) and the adherence to the following process:

- On the eARF select primary diagnosis as ‘Cardiac Arrest’ and complete documentation in accordance with current standards.
- Forward the physical hard copies of the relevant DCARF, eARF, and in cases where monitoring or defibrillation has been performed, a complete Mission Protocol printout and ECG rhythm strips at the earliest opportunity to:

Manager, Cardiac Outcomes Program