Clinical Practice Guidelines:
Resuscitation/General guidelines

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Resuscitation – General guidelines

September, 2024

This Clinical Practice Guideline (CPG) provides both information and directions for ambulance clinicians when responding to a patient who has suffered an out-of-hospital cardiac arrest.

In this CPG, the following topics are addressed:

- Commencement of cardiopulmonary resuscitation (CPR)
- Bystander assistance to perform CPR
- Withholding and/or withdrawing of CPR and other life-sustaining measures
- Lawful directions to withhold and/or withdraw life-sustaining measures
- Documents that may be available at the scene
- QAS clinical documentation
- Verification of death
- Data collection and cardiac arrest research.

Commencement of cardiopulmonary resuscitation

In cases of cardiac arrest, CPR must be commenced in accordance with the relevant guidelines set out in this Clinical Practice Guidelines (CPG) unless authorisation to withhold CPR has been confirmed (see below – 'withholding or withdrawing CPR'):

- *CPG: Resuscitation/Resuscitation – Adult (Non-traumatic)*
- *CPG: Resuscitation/Resuscitation – Newborn*
- *CPG: Resuscitation/Resuscitation – Paediatric (Non-traumatic)*
- *CPG: Resuscitation/Special circumstances*
- *CPG: Resuscitation/Traumatic*

The *QAS Clinical Consultation and Advice Line* must be contacted no later than 15 minutes from commencement of QAS administered CPR for case specific clinical management advice in the following patient cohorts:

- Patients less than 18 years of age
- Hypothermia (temperature less than 32°C)
- Suspected toxicology/toxinology cause
- Post QAS thrombolysis administration
- Pregnancy (clinically apparent)
- STEMI diagnosed by 12-Lead ECG prior to cardiac arrest
- Suspected pulmonary embolism (PE)
- Evidence of CPR induced consciousness
- Patients in VF/VT refractory to standard resuscitation measures.

Bystanders' assistance to perform CPR

In some circumstances it may be appropriate to use bystanders to perform cardiac compressions. This can assist ambulance clinicians 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.

When a bystander is providing assistance, the ambulance clinician must ensure that the bystander is:

- Able and willing to assist in performing cardiac compressions; and
- Suitably trained or able to demonstrate appropriate technique under clinician guidance and supervision.

Bystanders assisting with CPR must be provided with personal protective equipment (PPE) that is appropriate in the circumstances.

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Withholding and/or withdrawing of CPR and other life-sustaining measures

It is appropriate to withhold and/or withdraw CPR and other life-sustaining measures in any of the following circumstances:

- Where the patient is exhibiting obvious signs of death such as:
  - decomposition;
  - putrefaction
  - hypostasis; and/or
  - rigor mortis
- Where the patient has sustained injuries that are totally incompatible with life such as:
  - decapitation;
  - cranial and cerebral destruction;
  - hemicorporectomy (or similar massive injury);
  - incineration;
  - fetal maceration.
- Where the clinician forms a reasonable belief that performing CPR may endanger the life, health or safety of the ambulance clinician.
- Where the patient has **not requested** the administration of CPR and/or other life-sustaining measures, and the ambulance clinician **believes, on reasonable grounds,** that the patient has self-administered, or has been administered, a voluntary assisted dying substance in accordance with the provision of the *Voluntary Assisted Dying Act 2021* (Qld).[1]
- Where a lawful direction to withhold and/or withdraw CPR and/or other life-sustaining measures has been provided to the ambulance clinician *(see below)*.

Lawful directions to withhold or withdraw CPR or other life-sustaining measures

The *Powers of Attorney Act 1998* and the *Guardianship and Administration Act 2000* combine to provide, among other matters, a legislative framework for decisions regarding life-sustaining measures, including decisions to withhold, or if commenced, to withdraw, CPR, assisted ventilation, and other life-sustaining measures.
The framework involves three possible pathways which are set out below:

(i) A decision made in advance by the **patient** in an Advance Health Directive[2]

(ii) A decision made by the **patient's guardian** or **attorney**[3]

(iii) A decision made by the patient's **health provider** in an acute emergency (see below for explanation of 'health provider' for this purpose of this CPG)[4]

(i) Patient Decision (Advance Health Directive)

Life-sustaining measures can be withheld, or if commenced, immediately withdrawn, if the patient has made an *Advance Health Directive* giving direction to withhold or withdraw the *specific* life-sustaining measure that is required.

NOTE: For a direction to withhold or withdraw a life-sustaining measure specified in the patient's Advance Health Directive to apply, the following CONDITIONS must first be satisfied:

- The patient has impaired decision making capacity at the time the life-sustaining measure is required;[5] and
- There is no reasonable prospect that the patient will regain capacity to make decisions about health matters;[6] and
- The patient is suffering from one of the following conditions:[7]
  - 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;

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- 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.

NOTE: *The ambulance clinician must sight the original or a certified copy of the patient's Advance Health Directive and obtain confirmation, either recorded in a document that is available at the scene (see below) or be informed by the patient's treating medical practitioner, that the conditions (as set out in the Powers of Attorney Act and referred to above) have been satisfied.*[7]

(ii) Patient's Attorney or Guardian's Decision

Life-sustaining measures can be withheld, or if commenced, immediately withdrawn, if the patient's tribunal appointed guardian or attorney (appointed attorney or statutory health attorney) provides consent to withhold or withdraw the life-sustaining measure.[8]

NOTE: *Consent to withhold or withdraw life-sustaining measures provided by an attorney or guardian cannot operate unless the ambulance clinician 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]

See below for definition of 'good medical practice'. Ambulance clinicians must consult with the *QAS Clinical Consultation and Advice Line* for direction if in doubt regarding whether the guardian or attorney's direction/consent to withhold or withdraw life-sustaining measures is consistent with good medical practice.

(iii) Health Provider's Decision (Acute Emergency)

Life-sustaining measures can be withheld, or if commenced, immediately withdrawn, if a direction is issued by the patient's health provider in circumstances where:

- the commencement or continuation of cardiopulmonary resuscitation or another life-sustaining measures would be inconsistent with good medical practice; and
- consistent with good medical practice, the decision to withhold or withdraw the life-sustaining measures should be taken immediately.[10]

NOTE:

The 'health provider' for the purpose of this CPG is:

- the patient's treating medical practitioner
- a QAS medical practitioner (QAS Medical Director or QAS Medical Officer)
- a QAS Critical Care Paramedic (CCP) authorised by the QAS Medical Director and credentialed to provide advice and direction to ambulance clinicians via *QAS Clinical Consultation and Advice Line*
- the attending ambulance clinician, but only when making decisions in accordance with the QAS rapid or general discontinuation criteria *(see below)*.

Discontinuation (withdrawing) of CPR and other life-sustaining measures in an Acute Emergency

Ambulance clinicians may withdraw CPR in an acute emergency if the clinical criteria listed for either the ***general discontinuation*** or ***rapid discontinuation***, exists.[11]

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General Discontinuation Criteria

CPR must be administered by the ambulance clinician/s for a period of no less than 20 continuous minutes after which CPR may be discontinued and other life-sustaining measures withdrawn if **ALL** of the following clinical criteria are met:

ACP Clinicians

- cardiac arrest was not witnessed by QAS personnel; and
- no return of spontaneous circulation (ROSC) at any stage during resuscitation; and
- no shockable rhythm at any stage during resuscitation.

CCP Clinicians

- cardiac arrest was not witnessed by QAS personnel; and
- no return of spontaneous circulation (ROSC) at any stage during resuscitation; and
- no shockable rhythm at the time when the decision to discontinue resuscitation is made.

If the patient does not meet the above criteria, the *QAS Clinical Consultation and Advice Line* must be contacted to discuss case specific clinical management.

Rapid Discontinuation Criteria

ACP and CCP Clinicians

Cardiopulmonary resuscitation may be discontinued before 20 continuous minutes if **ALL** of the following clinical criteria are present:

- the patient was observed to be unconscious, unresponsive to stimuli, not breathing and pulseless for at least 10 minutes prior to the arrival of the ambulance clinician;
- no CPR was provided during this period;
- the patient is exhibiting life extinct criteria *(see below)*; and
- the patient's cardiac rhythm is asystole OR a broad PEA < 40/minute.

Definitions

Good Medical Practice

Decisions to withhold or withdraw CPR and other life-sustaining measures that are made by the patient's attorney or guardian, and those made by the patient's health provider, MUST be consistent with good medical practice. Good medical practice is determined in the context of the patient's 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 has regard for:

- the recognised medical standards, practices and procedures of the medical profession of Australia, and[10]
- the recognised ethical standards of the medical profession in Australia.[12]

Life-sustaining measure

A life-sustaining measure is health care that is 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.

A life sustaining measure can include:

- *cardiopulmonary resuscitatIon*
- *assisted ventilation*
- *artificial nutrition and hydration.*[13]

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Documents that may be available at the scene

There may be a range of documents available to the ambulance clinician at the scene, the contents of which will help guide clinical decision-making and determine if there is a lawful direction to withhold or withdraw life-sustaining measures. The types of documents may include:

- Enduring documents such as an Advance Health Directive (AHD) and an Enduring Power of Attorney (EPOA).
- Clinical documents such as an Acute Resuscitation Plan (ARP)
- Values-based Advanced Care Planning documents such as a Statement of Choices and a My Care Companion

Advanced Health Directive

An ADH is an enduring document in which a person can provide details regarding their views, wishes and preferences in relation to health matters, and specific directions about life-sustaining measures and other health care that may be considered.[14,15] An AHD is legally recognised, however, the document must be:

- in writing'
- signed by the patient;
- signed and dated by an 'eligible witness'; and
- signed and dated by a medical practitioner (not the witness) who must also certify that the patient had decision-making capacity to make an AHD at the time.[16]

There is provision at the rear of the AHD for the person to appoint an attorney/s to make health related decisions for the person in circumstances where they lack some future time, the requisite decision-making capacity.[17]

An AHD remains valid until such time as the person amends the document.

Ambulance clinicians must sight the AHD if relying upon the document for the purposes of withholding and/or withdrawing CPR and other life-sustaining measures.

Enduring Power of Attorney (EPOA)

An EPOA is an enduring document in which an adult may appoint one or more people to make financial, health and/or lifestyle decisions on behalf of the person with impaired decision-making capacity.[18]

The ambulance clinician is not required to sight the EPOA however, in circumstances involving a cardiac arrest, it would be prudent to ascertain the relationship between the patient and the person who identifies as the EPOA, and the patient's wishes if they are known.

Acute Resuscitation Plan (ARP) & Paediatric Acute Plan (PARP)

A Queensland Health ARP and PARP are clinical documents that records the following information:[19]

A Queensland Health ARP will include the following information: clinical assessment; capacity assessment and diagnosis; the patient's expressed wishes regarding resuscitation (if known); a resuscitation plan with information about the treatment that should be provided or withheld in the event of an acute deterioration; medical authorisation for that treatment; and details regarding any consent that was obtained from the patient or the patient's attorney or guardian when the ARP was completed.

The information provided in the ARP will assist the ambulance clinician when determining if a lawful direction to withhold or withdraw a life-sustaining measure, in accordance with the CPG, exists.

ARPs and PARPs generated post June 2023 are automatically transferred into the Queensland Health Viewer, enabling up to date eARP documents to be accessible to QAS clinicians.

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Table 1: Advance Care Planning Documents

DOCUMENTS	TYPE	PURPOSE	USE
Advanced Health Directive (AHD)[15]	**Legal Document**	A **formal document** in which an *adult* provides direction about health matters which are to be followed should the person lose decision-making capacity. The document also allows for a person to nominate one or more people (attorney/s) to make decisions on their behalf.	The AHD is activated when the person loses decision-making capacity.
Enduring Power of Attorney (EPOA)[20]	**Legal Document**	A **formal document** in which an *adult* may appoint one or more people whom they trust, to make financial and/or personal decisions (including decisions about healthcare) on behalf of the person if/when they are unable to make decisions for themselves.	The EPOA is 'enduring', which means that the power continues even if the person giving the EPOA loses the capacity to make decisions. EPOA for financial matters – the person can determine when the authority will activate (specific date). EPOA for health and personal matters will only activate when the person loses decision-making capacity. If there are more than one attorney appointed, the person must indicate how decisions are to be made (jointly; separately; or by majority).
Acute Resuscitation Plan (ARP)[19]	**Clinical Document**	A **medical order** that is designed to record the outcome of resuscitation planning following a discussion with a patient or their substitution decision-maker (if the patient lacks decision-making capacity) and members of the multidisciplinary team. The purpose of the ARP is to provide clinical direction and encourage compliance with relevant guardianship laws as they relate to the withholding and/or withdrawal of life-sustaining measures. The ARP is not a legal document and is not referenced in the guardianship legislation.	The ARP is intended to be used in an emergency to provide clinical direction to attending health providers responding to a patient's acute deterioration.

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Table 1: Advance Care Planning Documents *(cont.)*

DOCUMENTS	TYPE	PURPOSE	USE
Statement of Choices (SoC)[21]	**Advance Care Planning Document**	A values-based advance care **planning document** that records a person's values and preferences in relation to health care that may be provided, including health care that is delivered at the end of life. The SoC is not a legal document and is not referenced in the guardianship legislation. **The SoC is available for adults and children/young people (under 18 years of age).**	The SoC is used to guide a conversation regarding advance care planning. The SoC also records the contact details of the person's substitute decision-maker and the existence of any legal documents in the case of an adult patient (AHD, EPOA) that may exist.
My Care Companion Decision Aid (CC)[22]	**Advance Care Planning Document**	A value-based **planning document** that records a person's values, preferences and health care decisions regarding treatment and care.	The CC is a planning document that is used to facilitate a conversation regarding advance care planning, and to record details of those conversations. The CC does not record contact details of substitute decision-makers.

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QAS Clinical Documentation

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

If the decision is made in response to a **direction** in the patient's **Advance Health Directive**, the record must include:[23]

- the direction as it is provided in the Advance Health Directive and sighted by the ambulance clinician;
- 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 clinical circumstances.

If the decision is made in response to **consent** provided by the **patient's attorney or guardian**, the record must include:[23]

- the identity of the health 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 attorney or guardian's decision to withdraw or withhold life-sustaining measures in the circumstances is consistent with good medical practice.

If the decision is made by the **ambulance clinician** in accordance with the **QAS discontinuation criteria (acute emergency)** set out above, the record must include:[23]

- the identity of the ambulance clinician who made the decision; and
- the clinical circumstances and clinical findings enabling the decision to withhold or withdraw life-sustaining measures in accordance with the discontinuation criteria set out in this CPG.

If the decision is made by the **patient's health provider** in an **acute emergency,** the record must include:

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

Verification of death

In the absence of obvious signs of death, the ambulance clinician must complete a clinical assessment and confirm the presence of the following assessments:

- No palpable carotid pulse;
- No heart sounds heard for 30 continuous seconds (using a stethoscope);
- No breath sounds heard for 30 continuous seconds (using a stethoscope);
- Both pupils are fixed (not reacting light) and dilated; and
- No response to centralised stimuli.

Refer to *CPG: Verification of death and management of a deceased person*.

There must be no clinical procedures performed following verification of death.

Once it is confirmed that the person is deceased, 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 ambulance clinician the opportunity to acquire and/or maintain clinical competencies.

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Data collection and cardiac arrest research

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

- withheld the commencement of CPR;
- where CPR has been attempted and discontinued under the rapid or general discontinuation criteria, or
- in instances where the patient is transported to a receiving facility.

The submission of data is the responsibility of the primary patient care officer. For cardiac arrest cases, the Cardiac Arrest sections in the Care tab of the DARF app will be automatically made mandatory, this includes the Death and Cardiac Arrest Report Form (DCARF).

It is also mandatory to capture images of the:

- first $EtCO_2$ record; and
- Corpuls code summary.

The clinical image capture function can be accessed under the Finalise › Files tab in the DARF app.

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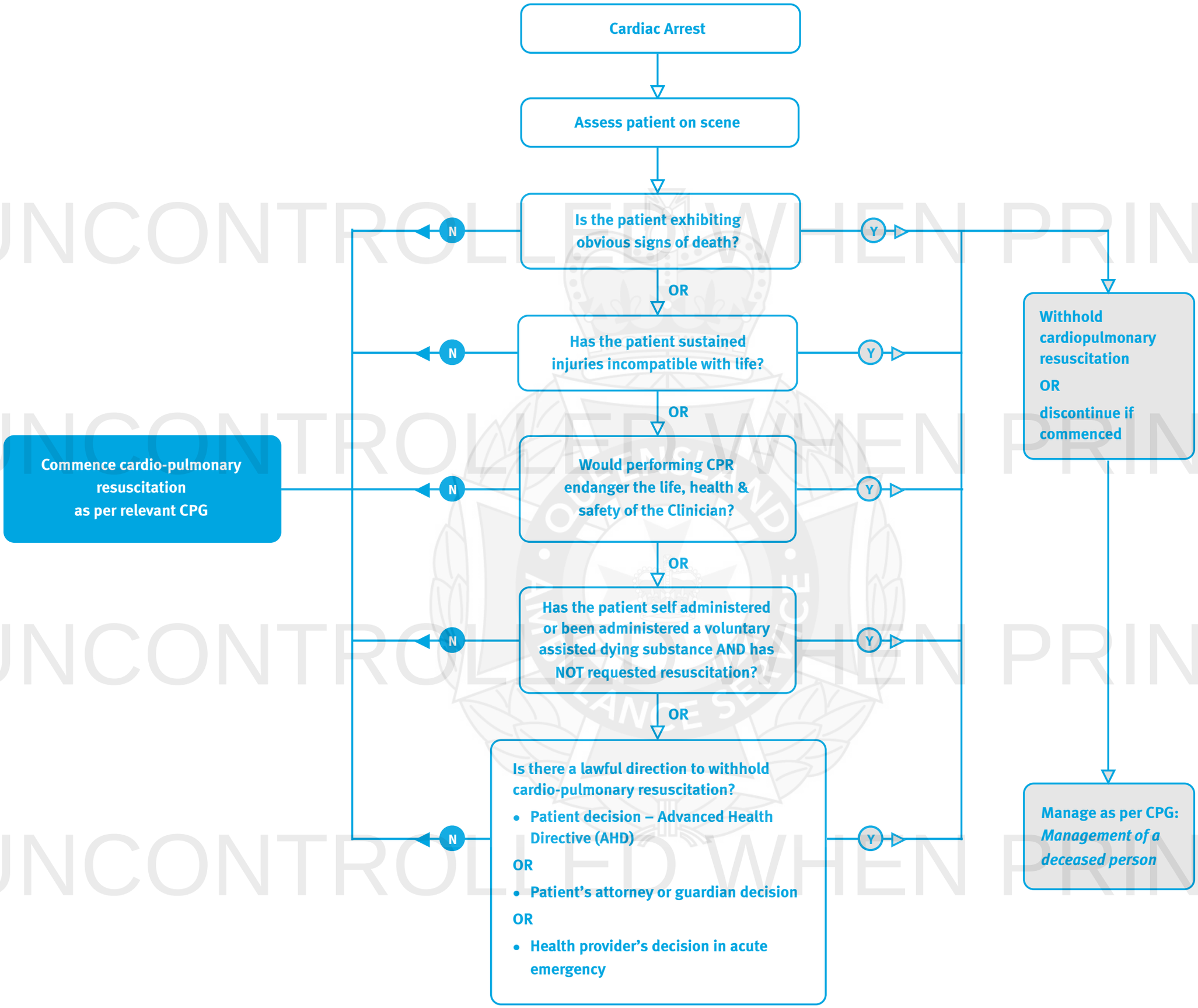

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Withholding and/or withdrawing CPR and other life-sustaining measures

Lawful directions (*Guardianship & Administration Act*) 2000 (*Powers of Attorney Act*) 1998

Patient decision Advanced Health Directive (AHD)[16]

CRITERIA

- Patient with impaired decision-making capacity[17]

AND

- Suffering from one of the following:[18]
  - Life-limiting illness (refer to CPG for additional criteria)
  - Persistent vegetative state
  - Permanently unconscious with brain damage
  - Serious illness or injury – unlikely to recover

Patient's Attorney or Guardian decision[19]

CRITERIA

Decision must be consistent with good medical practice[20]

Health provider in acute emergency[21]

CRITERIA

- Commencement or continuation would be inconsistent with good medical practice

AND

- To delay discontinuation would be inconsistent with good medical practice[22]

Approved clinical criteria in an acute emergency (consistent with good medical practice)

General discontinuation criteria ≥ 20 mins

ACP2

CRITERIA

- Cardiac arrest not witnessed by QAS personnel

AND

- No return of spontaneous circulation at any stage

AND

- No shockable rhythm at any stage during resuscitation

CCP

CRITERIA

- Cardiac arrest not witnessed by QAS personnel

AND

- No return of spontaneous circulation at any stage

AND

- No shockable rhythm at the time when the decision to discontinue resuscitation is made.

Rapid discontinuation criteria < 20 mins

CCP & ACP2

CRITERIA

- Patient observed to be unconscious, unresponsive to stimuli, not breathing and pulseless of ≥ 10 minutes pre-arrival of ambulance clinicians

AND

- No CPR provided

AND

- Signs of Life Extinct

AND

- Asystole or broad PEA < 40/minute

Good medical practice: *is practice that is consistent with recognised medical and ethical standards.*

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