

Circulatory Death Determination

This Statement provides assurance to the community that determination of death and the conduct of organ and tissue donation are undertaken in accordance with defined medical standards and within legal requirements.

The Australian and New Zealand Intensive Care Society (ANZICS) *Statement on Death and Organ Donation, Edition 3.2, 2013* (the Statement) provides the framework for best practice in the determination of death, aspects of end-of-life care in the intensive care unit (ICU), and provision of the best possible care for the patient and their family. It draws on the best available scientific evidence, the extensive experience of the ANZICS Death and Organ Donation Committee, and feedback from health care professionals involved in the care of patients with severe brain damage and other potentially fatal diseases leading to intensive care admission.

The purpose of this document is to summarise the approach used in Australia for determination of circulatory death by intensive care specialists. This statement is intended to ensure the utmost public confidence in the Australian process of organ and tissue donation and the clinical process for determination of circulatory death. This confidence is essential for individuals and families when making decisions about donation.

Legislation

Donation of organs and tissues after death is governed by laws. In 1977, the Australian Law Reform Commission addressed the absence of a definition of death in Australian law, recommending that a statutory definition of death should be introduced. They recommended that death be defined as:

- irreversible cessation of all function of the brain of the person, or
- irreversible cessation of circulation of blood in the body of the person.ⁱ

The Australian Law Reform Commission further agreed that ‘the creation and prescription of techniques of diagnosis should be the responsibility of the medical profession’. They specified that, although it appeared in the context of transplantation, the determination of death should have general application whether or not organ and tissue donation and subsequent transplantation were to follow.

The Australian Law Reform Commission recommendation has been enacted in all states and territories except Western Australia, and does not of course apply in New Zealand. Clinicians in both Western Australia and New Zealand use the ANZICS Statement, so there is in fact consistency in death determination across all nine jurisdictions.

Circulatory death determination in the adult

Determination of death after the cessation of circulation is a very common event in medicine and the signs of absence of life are well known. However, donation after circulatory death (DCD) requires that organ removal take place as soon as possible after death to minimise the effects of warm ischaemia on the organs that may be transplanted. This has created the need for criteria to determine, as soon as reasonable, that

death has occurred so that organ removal can commence without delay. ANZICS recommends that death be determined to have occurred when all the following features are present:

- Immobility
- Apnoea (complete absence of any breathing efforts)
- Absent skin perfusion
- Absence of circulation as evidenced by absent arterial pulse for a minimum of two minutes.

When all these criteria have been met, the patient is determined to be dead and, therefore, organ donation may proceed.

ANZICS has endorsed the joint Organ and Tissue Authority and National Health and Medical Research Council 2010 national protocol for DCDⁱⁱ (currently under review). This national protocol states that, in line with the legal definition of irreversible cessation of circulation, in the context of DCD, 'irreversible' means:

- sufficient time has elapsed to eliminate the possibility of auto-resuscitation so that, in the absence of resuscitative attempts, cessation is irreversible, and
- resuscitative attempts are either contraindicated on medical grounds, given that it has been determined that meaningful recovery of the patient is unlikely, or the patient (or the person with legal authority to make his or her medical decisions) has decided that resuscitative measures would be unduly burdensome.

When these criteria are met then irreversible cessation of circulation has occurred and death can be determined for organ donation to proceed.

These criteria for determination of circulatory death apply to all organs being considered for donation, and are identical to those used to declare in many other patients receiving end-of-life care in hospitals outside of donation. There does not have to be an attempt at resuscitation to demonstrate irreversibility before death is declared. This would be viewed as an infringement upon the dignity of the dying person.

The Statement can be accessed at www.anzics.com.au/Pages/DaOD.aspx.

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ⁱ The Law Reform Commission Report No. 7 Human Tissue Transplants, 1977.

ⁱⁱ Organ and Tissue Authority, www.donatelife.gov.au/national-protocol-donation-and-cardiac-death.