

Diagnosing Death With Certainty

BY WENDY ROGERS

Australia requires a national standard for the accurate and timely diagnosis of death after circulatory arrest.

Usually there is no difficulty in recognising when a person has died. The signs of death are well-known: a dead person is immobile, does not breathe, lacks a heart beat and is unresponsive. These changes are permanent; their body becomes cold and stiff over time. We can confidently claim that such a body is dead.

But in some cases a person may be dead without the obvious signs. A brain-dead patient may have their breathing and circulation artificially supported, masking the signs of death until support is withdrawn.

Usually it does not matter how long we take to diagnose death after the heart-beat and breathing have stopped, but some forms of organ donation require accurate and rapid diagnosis of death.

The most common form of organ donation in Australia occurs after brain death. This does not require a rapid diagnosis because the brain-dead person is artificially supported until the time of the donation operation.

In contrast, timing is crucial for donations after cardiac death, diagnosed when circulation and breathing stop. Organs must be removed rapidly from the dead person because they become damaged without circulation, and hence the subsequent transplant operations are less successful.

Therefore we need a fast and reliable

way of diagnosing death in the circumstances of donations after cardiac death. However, there is no national consensus on the diagnosis of death.

Legislation in most parts of Australia uses cardiac criteria to diagnose death. For example, the *Death Definition Act 1983 (SA)* states that “a person has died when there has occurred irreversible cessation of circulation of blood in the body of the person”. The law leaves it to doctors to define irreversible cessation of the circulation.

The main controversy in diagnosing death using circulatory criteria concerns the period of time it takes to establish that the cessation of circulation is irreversible. Does “irreversible” mean that the heart cannot be restarted in any circumstances, or does it mean “irreversible given the context”?

There are good reasons to think that the context must be taken into account. Cardiac arrest can be reversed in some circumstances, such as if full resuscitation is successful. However, there are no legal or ethical grounds for attempting resuscitation of patients who are potential donors after cardiac death.

These are patients who are dying, and an independent decision to withdraw treatment has already been made. In these circumstances it would be inhumane and pointless to attempt resuscitation.



The question then becomes: how long does it take without resuscitation attempts for circulatory arrest to become irreversible?

The Australian and New Zealand Intensive Care Society (ANZICS) has considered this question in some detail. In its *Statement on Death and Organ Donation* (3rd edition, 2008), ANZICS recommends that death be diagnosed when all of the following features are present: immobility, apnoea, absent skin perfusion and absence of circulation demonstrated by absent arterial pulsatility for a minimum of 2 minutes.

Waiting for 2 minutes after circulation ceases before declaring death rules out the rare possibility of the heart restarting on its own.

From my research on the ethics of organ donation, I believe that Australia should nationally adopt and publicise the ANZICS recommendation, which provides welcome clarity. Using these criteria, both practitioners and the public can be confident that donors after cardiac death are truly dead. This would lead to better understanding for families involved in donation decisions at the wrenching time of a loved one's death.

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