

It is, therefore, important to try to predict whether circulatory arrest after WCRS will occur within the timeframes required for organ donation and subsequent transplantation. Several predictive tools have been described, though none are highly reliable. Predicted likelihood of death occurring soon after WCRS is one of several factors considered when the donation staff decide whether to proceed with donation workup. Intensivists should seek advice from donation staff in all situations where treatment is being withdrawn.

Currently in Australia if death has not occurred within approximately 90 minutes of withdrawal of treatment, the donation process is stood down. If this time is reached and death is imminent, the time may be extended if the patient is still within the warm ischaemic time for kidneys and/or lungs. Guidance from attending donation staff and liaison between retrieval staff in the operating theatre and those attending the patient is important at this time. Currently in Australia 30% (and in New Zealand 15%) of patients who have treatment withdrawn in the context of possible DCDD, do not die within a timeframe permitting organ donation.

Consistent predictors of time to death were identified in a recent systematic review. The variables associated with rapid circulatory arrest were controlled ventilation, poor oxygenation, vasopressor use, low GCS and number of brainstem reflexes absent. Additional variables (such as metabolic derangements, age, abnormal motor responses, medical background) have been described over the last few years. When medications are used to manage pain and anxiety and to promote comfort, there is no indication that time to death is shortened. Following withdrawal of ventilatory support, rapid deterioration in poor oxygenation is associated with early progression to death. Therefore, absent or inadequate ventilation or oxygenation pre-extubation are reliable predictors. It is a consistent finding that the predictions of intensive care specialists are as reliable as those from statistically derived models.