

Donation after Cardiac Death ICU (Otago)

Date:/...../.....

Name: _____ NHI No: _____
 Address: _____ DOB: _____
 _____ Tel: _____
 ↑ Stick patient label here (or fill in if no label available) ↑

Criteria for donation after cardiac death (DCD):

- Aged 60 years or less
- Severe brain damage
- On ventilatory support in ICU
- Consensus that treatment will be withdrawn
- Expected to die soon after withdrawal of treatment

Advice is available by contacting the donor co-ordinator: 24 hour number 09 630 0935

The following procedure for DCD is listed in approximate sequence.

	Procedure	Action by √ when completed	Explanatory Notes
1	Discuss withdrawal of treatment with family	Intensivist & ICU nurse	The decision to withdraw treatment is made by the treating team in accord with good medical practice which includes the patient's best interests, ethical standards and legal requirements. The views of the patient, as far as they can be ascertained, and of the family, should be taken into account.
2	Agreement to withdraw treatment	Intensivist & ICU nurse	Family and treating team must both agree to the withdrawal of treatment before DCD can be considered.
3	Contact donor co-ordinator	Intensivist	Please discuss all patients who meet the above criteria with the donor co-ordinator on-call. The donor co-ordinator will contact the ODNZ medical specialist on-call, who in turn will phone the intensivist.
4	Discuss suitability for DCD	Intensivist & ODNZ medical specialist	Discuss suitability for DCD including: <ul style="list-style-type: none"> • Likelihood of deterioration to brain death • The organs and tissues under consideration – liver, kidneys, heart valves, skin and eyes • Whether or not referral to the coroner is required • Time frame for the DCD process • Discuss together whether or not the interval between withdrawal of treatment and death is likely to fall within a time frame that will allow donation. Ideally one intensivist will take responsibility for the DCD process. An ICU nurse will also be identified for this process.
5	Discuss organ donation with family	Intensivist & ICU nurse	Discuss organ donation with the family. Explain the DCD process, including: <ul style="list-style-type: none"> • Continuation of care, including sedation if required • Options for withdrawal of treatment are OT or ICU. Currently no procedure has been agreed to allow presence of family members in OT • Family can only have a short time (a few minutes) with their loved one following death • The organs and tissues that are under consideration • Use of heparin, if the intensivist does not think that heparin will influence the process of dying • If death does not occur within the required timeframe for donation that DCD will not proceed, but tissue donation can still be facilitated following death Determine the intent of family to proceed with donation.

DONATION AFTER CARDIAC DEATH

	Procedure	Action by √ when completed	Explanatory Notes
6	Inform donor co-ordinator	Intensivist	Inform donor co-ordinator of outcome of family discussion and whether heparin will be given. Donor co-ordinator will request the information outlined in the ODNZ 'Intensive Care Guidelines': Section 8.3, and whether referral to coroner is required.
7	Donor bloods	ICU staff	Donor co-ordinator will arrange courier to collect donor pack from ICU and transport to NZBS for testing. Testing of bloods commences only after family has indicated an intent to proceed with DCD.
8	Medical/social questionnaire & physical assessment	ICU nurse	Donor co-ordinator will fax medical/social questionnaire and physical assessment to ICU nurse to complete. Completed documentation faxed back to donor co-ordinator.
9	Agreement of the coroner	Intensivist	When referral to the coroner is required, agreement from the coroner for organ and tissue retrieval must be obtained before treatment is withdrawn: 24 hour number 0800 266 800. The chief coroner agrees that, in planning for DCD, it is appropriate for the coroner to agree, before death has occurred, for donation to proceed. Document outcome of the discussion on the 'Authority for Organ and Tissue Removal Form' or in the clinical notes.
10	Confirm organs and tissues that can be donated	Donor co-ordinator	Contact transplant units with donor information and whether or not heparin will be given. Inform intensivist of organs and tissues that can be donated
11	Determine if family wish to be present at time of withdrawal of treatment and death	Intensivist & ICU nurse	<ul style="list-style-type: none"> • If no family members wish to be present, withdrawal of treatment will take place in OT 8 after hours or acute theatre during working hours. • If family members wish to be present, withdrawal will take place in OT waiting bay after hours or ICU side room, if available.
12	Written consent for organ and tissue donation	Intensivist	Inform family of organs and tissues that are able to be donated and heparin will be given before withdrawal of treatment. Family representative signs 'Authority for Organ and Tissue Removal Form'. If family is not present, verbal consent in accord with the Human Tissue Act 2008 is documented on 'Authority for Organ and Tissue Removal Form'.
13	Inform donor co-ordinator	Intensivist or ICU nurse	Inform donor co-ordinator whether consent has been obtained, for which organs and tissues, whether the family wish to be present and where withdrawal of treatment will take place.
14	Organisation of retrieval operation	Donor co-ordinator	Arrange OT time in liaison with ICU, OT and the transplant retrieval team. Inform ICU of OT time. OT notifies OT link nurse and OT staff willing to be involved.
15	Planning meeting	Donor co-ordinator	Organise a meeting in the Ritchie Room or 5 th Floor Seminar Room prior to commencement of DCD process for those who will be involved: intensivist, ICU nurse, OT staff, transplant retrieval team and donor co-ordinator. Documentation will be checked at this meeting. OT staff will provide appropriate OT attire for ICU staff who will be in OT.
16	Patient care in ICU	ICU staff	Continue patient care, including adequate MAP and oxygenation.
17	OT 8 (after hours) or acute theatre (working hours) set up for retrieval operation	Transplant retrieval team & OT staff	Set up OT for organ retrieval operation. Trolleys are set up and remain uncovered in OT. Donor co-ordinator informs ICU staff when OT set-up is complete and retrieval team are gowned and gloved.

For withdrawal of treatment in ICU (single room) with family members present, go to No. 33

For withdrawal of treatment in OT waiting bay (after hours) with family members present, continue from No. 25

For withdrawal of treatment in OT, continue from No.18

	Procedure	Action by √ when completed	Explanatory Notes
18	Transfer of patient to OT	Intensivist, ICU nurses (2) & donor co-ordinator	ICU staff who will be in OT require appropriate OT attire. Continue arterial pressure monitoring and inotropic support, if required. Discontinue ECG monitoring. Take all medications that might be required from ICU, including heparin, opioids and sedation. Intensivist and ICU nurse continue patient care in OT. Another ICU nurse remains with the family.
19	Patient prepared for retrieval operation	Transplant retrieval team	Patient prepared and draped for surgery. A circulating nurse remains in the scrub bay but all other OT staff and the retrieval team (gowned and gloved) leave OT and wait in the utility room.
20	Administration of heparin	Intensivist	If heparin is to be given, administer 300u/kg prior to withdrawal of treatment.
21	Withdrawal of treatment	Intensivist & ICU nurse	Withdraw treatment (usually ventilation and ETT and inotropes). Continue arterial pressure monitoring (ECG monitoring will have been discontinued in ICU). An intensivist and ICU nurse remain with the patient until death has occurred. Any evidence of distress is treated with opioid and/or sedation as for treatment withdrawal in any other circumstances.
22	Determination of death	Intensivist	Determine death on the basis of: <ul style="list-style-type: none"> • Immobility • Apnoea • Absent skin perfusion • Absence of pulsatility on the arterial line of at least 2 minutes duration Notify donor co-ordinator and document time of death on the 'Determination of Death Form'. All equipment remains in OT until after the organ retrieval. If death does not occur within the required timeframe, DCD will not proceed and the patient will return to ICU for continuing care. Tissue donation can still be facilitated following death.
23	Inform transplant retrieval team of death	Donor co-ordinator	Inform transplant retrieval team and OT staff (waiting in utility room) of death.
24	Organ retrieval operation	Transplant retrieval team & OT staff	Sight documentation of death and commence organ retrieval immediately but after ICU staff have left OT.

For care of patient following donation, go to No. 39

For withdrawal of treatment in OT waiting bay after hours, continue from No. 25

25	Transfer of patient to OT Waiting Bay	Intensivist, ICU nurses (2) & donor co-ordinator	ICU staff who will be in OT require appropriate OT attire. Continue arterial pressure monitoring and inotropic support, if required. Discontinue ECG monitoring. Take all medications that might be required from ICU, including heparin, opioids and sedation. Intensivist and ICU nurse continue patient care in OT Waiting Bay. Another ICU nurse remains with the family.
26	Family taken to OT Waiting Bay	ICU nurse or donor co-ordinator	An ICU nurse or donor co-ordinator takes the family to the OT Waiting Bay. The family do not require OT attire.

	Procedure	Action by √ when completed	Explanatory Notes
27	Administration of heparin	Intensivist	If heparin is to be given, administer 300u/kg prior to withdrawal of treatment.
28	Withdrawal of treatment	Intensivist & ICU nurse	Withdraw treatment (usually ventilation and ETT and inotropes). Continue arterial pressure monitoring (ECG monitoring will have been discontinued in ICU). An intensivist and ICU nurse remain with the patient until death has occurred. Any evidence of distress is treated with opioid and/or sedation as for treatment withdrawal in any other circumstances.
29	Determination of death	Intensivist	Determine death on the basis of: <ul style="list-style-type: none"> • Immobility • Apnoea • Absent skin perfusion • Absence of pulsatility on the arterial line of at least 2 minutes duration Notify donor co-ordinator and document time of death on the 'Determination of Death Form'. All equipment remains in OT until after the organ retrieval. If death does not occur within the required timeframe, DCD will not proceed and the patient will return to ICU for continuing care. Tissue donation can still be facilitated following death.
30	Inform transplant retrieval team of death	Donor co-ordinator	Inform transplant retrieval team of death.
31	Transfer patient to OT	Intensivist & donor co-ordinator	Intensivist and donor co-ordinator transfer deceased immediately to OT. Intensivist, donor co-ordinator and circulating nurses transfer patient to OT table. The ICU nurse provides care and support for the family.
32	Organ retrieval operation	Transplant retrieval team & OT staff	Sight documentation of death and commence organ retrieval immediately but after ICU staff have left OT.
For care of patient following donation, go to No. 39			
For withdrawal of treatment in ICU (single room) with family present, continue from No. 33			
33	Administration of heparin	Intensivist	If heparin is to be given, administer 300u/kg prior to withdrawal of treatment.
34	Withdrawal of treatment	Intensivist & ICU nurse	Withdraw treatment (usually ventilation and ETT, ECG monitoring and inotropes). Continue arterial pressure monitoring. An intensivist and ICU nurse remain with the patient until death has occurred. Any evidence of distress is treated with opioid and/or sedation as for treatment withdrawal in any other circumstances.
35	Determination of death	Intensivist	Determine death on the basis of: <ul style="list-style-type: none"> • Immobility • Apnoea • Absent skin perfusion • Absence of pulsatility on the arterial line of at least two minutes duration Notify donor co-ordinator and document time of death on the 'Determination of Death Form'. If death does not occur within the required timeframe, DCD will not proceed. Tissue donation can still be facilitated following death.
36	Inform transplant retrieval team of death	Donor co-ordinator	Inform transplant retrieval team and OT staff of death.

For withdrawal of treatment in ICU (single room) with family present, continue from No. 33			
37	Transfer of patient to OT	Intensivist & donor co-ordinator	Intensivist and donor co-ordinator transfer deceased immediately to OT. Intensivist, donor co-ordinator and circulating nurses transfer patient to OT table. The ICU nurse provides care and support for the family.
38	Organ retrieval operation	Transplant retrieval team	Sight documentation of death and patient ID and commence organ retrieval immediately.
Care of patient following donation			
39	Completion of routine death documentation	ICU staff	ICU staff follow normal protocol following death.
40	Care of patient following donation	OT staff, donor co-ordinator & ICU staff	Following donation, care of the patient can be carried out by OT staff and the donor co-ordinator. The ICU staff will inform OT staff if the family wish the patient to return to the ICU following donation otherwise the patient will be transferred directly to the mortuary.
41	For coronial cases	ICU medical staff	Notification of police by the ICU medical staff. Patient ID and 'Life Extinct Form' completed. Police and nursing staff or orderly transfer patient to mortuary.