Tauranga Hospital

Bay of Plenty DHB

DONATION AFTER CIRCULATORY DEATH (DCD)

Patient Label

DATE: ……/……/……..

DONATION AFTER CIRCULATORY DEATH

Criteria for identification of potential DCD donor:

- On ventilatory support in ICU irrespective of diagnosis
- Consensus that intensive therapies will be withdrawn in the near future
- No age barrier

Advice is available by contacting the donor coordinator: 24 hour number 09 630 0935

The following procedure for DCD is listed in approximate sequence

	Procedure	Action by √ when completed	Explanatory Notes
1	Agreement by treating medical team(s) that continuing intensive therapies is not in the patient's best interest.	Intensive care medical team	The decision to withdraw intensive therapies is made by the treating team(s) in accord with good medical practice. This includes consideration of the patient's best interests, ethical standards and legal requirements and takes into account the views of the patient, as far as they can be ascertained, and of the whānau.
2	Contact donor coordinator	Intensivist	Please discuss all patients who meet the above criteria for identification of the potential for donation with the donor coordinator on call. The donor coordinator will contact the ODNZ medical specialist on call, who in turn will phone the intensivist.
3	Notify ICU Link nurse	ICU staff	Inform ICU Link nurse of potential DCD who will provide advice and support.
4	Discuss the possibility of DCD	Intensivist and ODNZ medical specialist	These issues will be addressed • Likelihood of deterioration to brain death and possibility of DBD • Organs and tissues under consideration for DCD donation – lungs, liver, kidneys, heart valves and eyes • The doses of opioid and/or sedative the intensivist plans to use at the time of withdrawal of intensive therapies. The ODNZ medical specialist will not seek to modify this plan in any way. • Whether the interval between withdrawal of intensive therapies and death is likely to be within the timeframe for DCD • Whether or not referral to the Coroner is required • Possible timing of withdrawal of intensive therapies • Whether the intensivist objects to giving heparin at the time of withdrawal of intensive therapies • The name of the intensivist who will be involved at the time of withdrawal of intensive therapies.
5	Donor Bloods	ICU Staff	The label on the pink blood tube in the Donor Pack must be handwritten. Patient labels can be used on all other tubes and the form. Ensure all sections of the blood request form, including the Specimen Request Declaration, are completed. Donor coordinator will arrange courier to collect Donor Pack from ICU and transport to NZBS for testing (as soon as possible to prevent undue delays for the donor family). **Testing of bloods commences only after family has indicated intent to proceed with DCD.**

	Procedure	Action by √ when completed	Explanatory Notes
6	Agreement to withdraw intensive therapies	Intensivist and ICU nurse	A patient with decision-making capacity and the patient's family/whānau and the treating team must agree to the withdrawal of intensive therapies.
7	Provide space and time for patient/whānau to attend to cultural/ spiritual/emotional/ social needs	Intensivist and ICU nurse	Offer karakia and spiritual support to family/whānau during this time.
8	Discuss organ donation with both the patient (if he/she has decision-making capacity) and the family/whānau	Intensivist, ICU Link nurse and ICU nurse	Discuss the possibility of organ donation and explain the DCD process including: • Continuation of care by the ICU team, including the use of opioid and/or sedation if required • Whether intensive therapies will be withdrawn in ICU or OT • Family/whānau can only have a few minutes with their family member following death • The organs and tissues that are under consideration • Use of heparin • If death does not occur within the required timeframe, DCD will not proceed but tissue donation can be facilitated following death. • Confirm the intent of the family/whānau (and of a patient with decision-making capacity) to proceed with DCD.
9	Inform donor coordinator	Intensivist or ICU Link nurse	Inform donor coordinator of outcome of discussion. When family/whānau agreeable to donation, whether or not heparin will be given and whether referral to the Coroner is required.
10	Donor Assessment	ICU Link nurse or ICU nurse and donor coordinator	Donor coordinator will request the information outlined in the ODNZ Intensive Care Guidelines: Section 8.3.
11	Medical/Social Questionnaire & Physical Assessment	ICU Link nurse or ICU nurse	Complete Physical Assessment and meet with family to complete Medical/Social questionnaire. Email completed documentation to donor coordinator: contactus@donor.co.nz
12	Notify theatre team	Donor coordinator and ICU Link nurse	Contact theatre coordinator with early notification of DCD to enable planning for donor surgery. Theatre coordinator contacts OT Link nurse on call. Donor coordinator contacts anaesthetist on call.
13	Agreement of the Coroner	Intensivist	When referral to the coroner is required, agreement from the coroner for organ and tissue donation must be obtained before intensive therapies are withdrawn: 24 hr 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. Document outcome of the discussion and the name of the Coroner involved on the Authority for Organ and Tissue Removal Form.
14	Complete patient ID with police	Intensivist	When the Coroner has accepted jurisdiction, request police to attend and complete patient ID while family/whānau is present, preferably while the patient is in the ICU and before withdrawal of intensive therapies.
15	Confirm organs and tissues that can be donated	Donor coordinator	Contact transplant units with donor information and whether or not heparin will be given. Inform ICU staff of organs and tissues that can be donated.
16	Cessation of enteral feeding for lung donation	Intensivist and ICU nurse	If lung donation is planned, donor coordinator will ask the ICU staff to cease enteral feeding and to aspirate NG tube.

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17	Determine if family/whānau wish to be present at time of withdrawal of intensive therapies and death.	Intensivist, ICU Link nurse and ICU nurse	• If family/whānau members wish to be present, withdrawal will take place in ICU. • If no family/whānau members wish to be present at the time of withdrawal, withdrawal will take place in the designated OT.
18	Written consent for organ and tissue donation	Intensivist or ICU Link nurse	Inform family/whānau of DCD process, the organs and tissues that are able to be donated and if heparin will be given before withdrawal of intensive therapies. Family/whānau representative signs Authority for Organ and Tissue Removal Form. If family/whānau is not present, verbal consent in accord with the Human Tissue Act 2008 is documented on Authority for Organ and Tissue Removal Form.
19	Inform donor coordinator	Intensivist or ICU Link nurse	Inform donor coordinator whether consent has been obtained, for which organs and tissues, whether the family/whānau wish to be present and where withdrawal of intensive therapies will occur.
20	Medical cover for ICU	Intensivist	Arrange SMO to provide medical cover for ICU while DCD is being facilitated.
21	Organisation of donor surgery	Donor coordinator	Organise OT time in liaison with ICU, OT coordinator and the donor surgical team(s). Inform ICU and anaesthetist of OT time. Preferred time for availability of OT during the week is evenings.
22	Organization of OT staff	OT coordinator	Organise OT staff (OT Link nurse, circulating nurses 1 or 2, anaesthetic technician if lung donation is being planned) willing to be involved.
23	Patient care in ICU	ICU staff	Continue patient care, including maintenance of adequate MAP and oxygenation.
24	Travel to hospital	Donor surgical teams and donor coordinator(s)	Donor surgical team(s) and donor coordinator(s) travel to hospital.
25	OT 2, 3 or 4 is set up for donor surgery	Donor surgical team(s) and OT staff	Set up OT 2, 3 or 4 for donor surgery. Trolleys are set up and remain uncovered in OT. Donor scrub nurse remains with sterile set-up. Donor coordinator informs ICU staff when OT set-up is complete.
26	Planning meeting	Donor coordinator	Facilitate a meeting in the ICU Meeting Room prior to commencement of DCD process for those who will be involved: Intensivist, ICU Link nurse, ICU nurse, OT Link nurse, OT nurses (1 or 2), anaesthetic technician (if lungs are being donated), orderly, donor surgical team(s) and donor coordinator(s). Staff will not be allowed to be involved in the DCD process if they have not been present at the planning meeting. Documentation will be checked at this meeting. OT staff will provide appropriate OT attire for ICU staff if withdrawal of intensive therapies is to be in OT.
27	Inform ICU staff	Donor coordinator	Inform ICU staff when OT staff are ready and donor surgical team(s) are gowned and gloved.
For withdrawal of intensive therapies in ICU with family members present, continue from No. 28			
For withdrawal of intensive therapies in OT 1 without family members present, go to No. 36			

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	Procedure	Action by √ when completed	Explanatory Notes
28	Administration of heparin	Intensivist	Give heparin (300u/kg) prior to withdrawal of intensive therapies provided the intensivist does not think it will influence the process of dying.
29	Preparation for lung donation	Intensivist and ICU nurse	If lung donation is planned, place patient in a 30 degrees head up position. Aspirate the nasogastric tube and avoid external pressure to the abdomen.
30	Withdrawal of intensive therapies	Intensivist, ICU Link nurse and ICU nurse	Discontinue ECG monitoring and continue arterial pressure and pulse oximetry. Withdraw all intensive therapies (ventilation, ETT and inotropes) at the same time. An intensivist and ICU nurse remain with the patient until death has occurred. Any appearance of distress is treated with opioid and/or sedation in the same manner as would be done if intensive therapies were being withdrawn and DCD was not a possibility.
31	Determination of death	Intensivist	Determine death on the basis of: • Immobility • Apnoea • Absence of pulsatility on the arterial line of at least 5 minutes duration Notify donor coordinator 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 be facilitated following death.**
32	Inform donor surgical team(s) of death	Donor coordinator	Inform donor surgical team(s) and OT staff of death.
33	Transfer of patient to OT 2, 3, or 4	Intensivist, ICU Donation Link nurse, donor coordinator, and orderly	Intensivist, ICU Link nurse, donor coordinator and orderly transfer deceased patient immediately to OT department doors (via corridor behind lifts and past SCBU). OT Link nurse, circulating nurse(s), and donor coordinator(s) transfer deceased patient into OT. If lung donation is planned, the patient remains on the ICU bed. If abdominal organ donation only, the donor coordinator(s) and OT staff transfer patient to OT table. The ICU nurse provides care and support for the family/whānau.
34	Check patient ID and Determination of Death Form	Donor surgical team(s) OT staff and donor coordinator	Donor coordinator completes patient ID and sights time of death documented on Determination of Death Form with donor surgical team(s) and OT staff.
35	Re-intubate trachea for lung donation	Thoracic anaesthetist and anaesthetic technician	If lung donation planned, patient re-intubated immediately (the patient remains on the ICU bed).
36	Transfer of patient to OT table	Anaesthetic staff, OT staff and donor coordinator(s)	Anaesthetic staff (if lung donation planned), OT staff, donor coordinator and theatre assistant transfer patient to OT table.
37	Donor surgery	Donor surgical team(s)	Donor surgery commences immediately.
For care of patient following donation, go to No. 51			
For withdrawal of intensive therapies in OT 1 with no family/whānau present, continue from No. 38			

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	Procedure	Action by √ when completed	Explanatory Notes
38	Transfer of patient to OT 2, 3 or 4	Intensivist, ICU nurse and donor coordinator	ICU staff who are going to be with the patient in OT and are not wearing scrubs require disposable gowns, hats and overshoes. Continue ventilation, arterial pressure, O2 saturation monitoring and inotropic support, if required. Discontinue ECG monitoring. Transfer patient to OT using ambu bag and monitor. Take all medications that might be required, including heparin, opioids and sedation. Intensivist and ICU nurse continue patient care in OT.
39	Transfer patient to OT table	Anaesthetist, OT nurses, donor coordinator(s)	If lung donation planned, anaesthetist, circulating nurses, donor coordinator(s) transfer patient to OT table. For abdominal-only donation, circulating nurses, donor coordinator and theatre assistant transfer patient to OT table.
40	Preparation for lung donation	Intensivist and ICU nurse	If lung donation planned, place patient in anti-Trendelenburgwith head end of bed elevated to 30 degree on the operating table. Aspirate the nasogastric tube and avoid external pressure to the abdomen.
41	Sight patient ID	Thoracic anaesthetist or donor coordinator	If lung donation is planned, thoracic anaesthetist completes patient ID with donor surgical team(s) and OT staff. If abdominal organs only, donor coordinator completes patient ID with donor surgical team and OT staff.
42	Patient prepared for donor surgery	Donor surgical team(s)	Patient prepared and draped for surgery. A donor surgical nurse remains in OT but all other staff and the donor surgical team(s) (gowned and gloved) leave OT and wait in the set-up room.
43	Administration of heparin	Intensivist	If heparin is to be given, administer 300u/kg prior to withdrawal of treatment.
44	Withdrawal of intensive therapies	Intensivist, ICU Link nurse and ICU nurse	Withdraw all intensive therapies (ventilation, ETT and inotropes) at the same time. Continue arterial pressure monitoring and pulse oximetry (ECG monitoring will have been discontinued in ICU). An intensivist and ICU nurse remain with the patient until death has occurred. Any appearance of distress is treated with opioid and/or sedation in the same manner as would be done if intensive therapies were being withdrawn and DCD was not a possibility.
45	Determination of death	Intensivist	Determine death on the basis of: • Immobility • Apnoea • Absence of pulsatility on the arterial line of at least 5 minutes duration Notify donor coordinator and document time of death on the Determination of Death Form **If death does not occur within the required timeframe, DCD will not proceed and care will be continued in the ICU. Tissue donation can be facilitated following death.**
46	ICU staff leave OT	Donor coordinator	All ICU staff leave the OT as soon as death has been determined and documented.
47	Inform donor surgical team(s) of death	Donor coordinator	Inform donor surgical team(s) and OT staff (waiting in set-up room) of death.
48	Sight time of death on Determination of Death Form	Donor surgical team(s), OT staff and donor coordinator	Donor coordinator sights time of death on Determination of Death Form with donor surgical team(s) and OT staff.
49	Re-intubate trachea for lung retrieval	Thoracic anaesthetist and anaesthetic technician	If lung donation planned, patient re-intubated immediately.
50	Donor surgery	Donor Surgical Team(s) and OT staff	Donor surgery commences immediately (after ICU staff have left OT).

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	Procedure	Action by √ when completed	Explanatory Notes
For care of deceased following donation, continue from No. 52			
Care of deceased following donation			
51	Completion of routine online death documentation	ICU staff	ICU staff follow normal protocol following death.
52	Care of deceased following donation	OT staff, donor coordinator and ICU staff	Following donation, care of the deceased is carried out by OT staff before transfer to the mortuary. If the family/whānau wish to spend time with their relative following donation, this will be facilitated in ICU.
53	For Coronial Cases	ICU staff	Follow hospital protocol for Coronial cases. Patient ID (if not already completed) will be facilitated in the ICU.

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