

Middlemore Hospital Counties Manukau DHB		Patient Label	
DONATION AFTER CIRCULATORY DEATH (DCD)			
DATE:/...../.....			
Criteria for identification of potential DCD donor: <ul style="list-style-type: none"> On ventilatory support in CCU irrespective of diagnosis Consensus that intensive therapies will be withdrawn in the near future No age barrier.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 the treating team that continuing intensive therapies is not in the patient's best interest.	Intensivist and CCC nurse	The decision to withdraw intensive therapies is made by the treating team in accord with good medical practice. This includes consideration of the patient's best interests, ethical standards and legal requirements.
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	Discuss the possibility of DCD	Intensivist and ODNZ medical specialist	These issues will be addressed <ul style="list-style-type: none"> Likelihood of deterioration to brain death and possibility of DBD Organs and tissues under consideration for DCD donation – lungs, liver, kidneys, heart valves, eyes and skin 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.
4	Agreement to withdraw intensive therapies	Intensivist and CCC 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 before DCD can be considered.
5	Provide space and time for patient/whānau to attend to cultural/spiritual/emotional/social needs.	Intensivist and CCC nurse	Offer karakia and spiritual support to family/whānau during this time.
6	Notify ICU Link nurse	CCC staff	CCC staff notify ICU Link nurse.

	Procedure	Action by √ when completed	Explanatory Notes
7	Discuss organ donation with both the patient (if he/she has decision-making capacity) and the family/whānau	Intensivist, ICU Link nurse and CCC nurse	Discuss the possibility of organ donation and explain the DCD process including: <ul style="list-style-type: none"> Continuation of care by the CCC team, including the use of opioid and/or sedation if required Whether therapy will be withdrawn in CCC, Whānau Room Level 2 OT or OT Family/whānau can only have a few minutes with their family/whānau member following death The organs and tissues that are under consideration Use of heparin If death does not occur within the required timeframe that 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.
8	Donor Bloods	CCC staff	The label on the pink blood tube in the Donor Pack must be handwritten. Patient labels can be used on the other tubes and the form. Ensure all sections of the blood request form, including the Specimen Declaration, are completed. Donor coordinator will arrange courier to collect Donor Pack from CCC and transport to NZBS for testing (as soon as possible to prevent undue delays for the donor family/whānau). Testing of bloods commences only after family/whānau has indicated intent 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	Donor coordinator will request the information outlined in the ODNZ Intensive Care Guidelines: Section 8.4
11	Medical/Social Questionnaire and Physical Assessment	ICU Link nurse	Complete Physical Assessment and meet with family/whānau to complete Medical/Social questionnaire. Email completed documentation to donor coordinator: contactus@donor.co.nz
12	Contact Bereavement Care Service	CCC nurse	Contact Bereavement Care Service so that documentation required after death is completed following the donor surgery.
13	Inform theatre team	Donor coordinator	Contact OT coordinator with early notification of DCD to enable planning for donor surgery. Donor coordinator notifies anaesthetist on call.
14	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.
15	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 CCC and before withdrawal of intensive therapies.
16	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 CCC staff of organs and tissues that can be donated.
17	Cessation of enteral feeding for lung donation	Intensivist and CCC nurse	If lung donation planned, donor coordinator will ask the CCC staff to cease enteral feeding and to aspirate the NG tube.

	Procedure	Action by √ when completed	Explanatory Notes
18	Determine if family/whānau wish to be present at time of withdrawal of intensive therapies and death	Intensivist and CCC Link nurse	<ul style="list-style-type: none"> If family/whānau members wish to be present, withdrawal of intensive therapies will take place in CCC Flexi 3 or Whānau Room, Level 2 OT. If no family/whānau members wish to be present, withdrawal of intensive therapies will take place in OT.
19	Written consent for organ and tissue donation	Intensivist and 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.
20	Inform donor coordinator	Intensivist or ICU Link nurse	Inform donor coordinator whether consent has been obtained and for which organs and tissues, whether the family/whānau wish to be present and where withdrawal of intensive therapies will occur.
21	Organisation of donor surgery	Donor coordinator	Organise OT time in liaison with CCC, OT coordinator and the donor surgical team(s). Confirm OT time and location of withdrawal of intensive therapies with CCC, OT and anaesthetist.
22	Organisation of OT staff	OT coordinator	Organise OT staff (circulating nurses (2), anaesthetic technician if lung donation planned) who are to be involved.
23	Patient care in CCC	CCC staff	Continue patient care, including maintenance of adequate MAP and oxygenation.
24	Travel to donor hospital	Donor surgical teams and donor coordinator(s)	Donor surgical team(s) and donor coordinator(s) travel to hospital.
25	OT set up for donor surgery	Donor surgical team(s) and OT staff	Set up OT for donor surgery. Trolleys are set up and remain uncovered in OT. Donor scrub nurse remains with sterile set-up. Donor coordinator informs CCC staff when OT set-up is complete.
26	Planning meeting	Donor coordinator	Facilitate a meeting in the CCC seminar room prior to commencement of DCD process for those who will be involved: intensivist, ICU Link nurse, CCC nurse, OT nurses (2), anaesthetic technician (if lungs are being donated), donor surgical team(s), Bereavement Care Service, orderly 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 CCC staff, if withdrawal of intensive therapies is going to be in OT.
27	Inform CCC staff	Donor coordinator	Inform CCC staff when OT staff are ready and donor surgical team(s) are gowned and gloved.
For withdrawal of intensive therapies in OT with no family/whānau present, go to No. 50			
For withdrawal of intensive therapies in Whānau Room with family/whānau present OT, go to No. 38			
For withdrawal of intensive therapies in CCC Flexi 3 with family/whānau present, continue from No. 28			

	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 CCC nurse	If lung donation planned, place patient in a 30 degree head up position. Aspirate the nasogastric tube and avoid external pressure to the abdomen.
30	Withdrawal of intensive therapies	Intensivist, ICU Link nurse and CCC nurse	Discontinue ECG monitoring and continue arterial pressure monitoring and pulse oximetry. Withdraw all intensive therapies (ventilation, ETT and inotropes) at the same time. An intensivist, CCC nurse and ICU Link 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: <ul style="list-style-type: none"> • 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	Intensivist, ICU Link nurse, donor coordinator, orderly and Bereavement Care Service	Intensivist, ICU Link nurse, donor coordinator and orderly transfer deceased patient immediately to OT department doors. OT staff and donor coordinator(s) transfer patient into OT. If lung donation is planned the patient remains on the ICU bed. If abdominal organ donation only, the donor coordinator and OT staff transfer patient to OT table. If the family/whānau wish to spend time with their family/whānau member after the donation, Bereavement Care Service takes the family/whānau to the Whānau Room.
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 retrieval	Thoracic anaesthetist and anaesthetic technician	If lung donation planned, patient re-intubated immediately.
36	Transfer of patient to OT table	Thoracic anaesthetic staff, OT staff and donor coordinator(s)	If lung donation planned, anaesthetic staff, circulating nurses and donor coordinator(s) 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. 62

For withdrawal of intensive therapies in Whānau Room Level 2 OT with family/whānau present, continue from No. 38

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	Procedure	Action by √ when completed	Explanatory Notes	D O N A T I O N A F T E R C I R C U L A T O R Y D E A T H
38	Transfer patient to Whānau Room Level 2 OT	Intensivist, CCC nurse, ICU Link nurse and donor coordinator	Intensivist, CCC nurse, ICU Link nurse and donor coordinator transfer patient to Whānau Room Level 2 OT. Continue arterial pressure monitoring and inotropic support, if required. Continue with pulse oximetry. Discontinue ECG monitoring. Take all medications that might be required, including heparin, opioids and sedation. Intensivist and CCC nurse continue patient care in Whānau Room. Another CCC nurse or ICU Link nurse remains with the family/whānau.	
39	Family/whānau taken to Whānau Room Level 2 OT	CCC nurse or ICU Link nurse	CCC nurse or ICU Link nurse takes family/whānau to the Whānau Room Level 2 OT. The family/whānau do not require OT attire.	
40	Preparation for lung donation	Intensivist and CCC nurse	If lung donation is planned, place patient in 30 degree head up position. Aspirate the nasogastric tube and void external pressure to the abdomen.	
41	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.	
42	Withdrawal of intensive therapies	Intensivist, ICU Link nurse and CCC 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 CCC). An intensivist, CCC nurse and ICU Link 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.	
43	Determination of death	Intensivist	Determine death on the basis of: <ul style="list-style-type: none"> • 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. All equipment remains in OT until after the donor surgery. 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.	
44	Inform donor surgical team(s) of death	Donor coordinator	Inform donor surgical team(s) and OT staff of death.	
45	Transfer of patient to OT	Intensivist, OT Link nurse, donor coordinator and Bereavement Care Service	Intensivist, ICU Link nurse, donor coordinator and orderly transfer deceased patient immediately to OT corridor. OT staff (waiting in OT corridor) and donor coordinator(s) transfer patient into OT. If lung donation planned the patient remains on the CCC bed. If abdominal organ donation only, the donor coordinator and OT staff transfer patient to OT table. If the family/whānau wish to spend time with their family/whānau member after the donation, Bereavement Care Service takes the family/whānau to the Whānau Room.	
46	Complete patient ID and sight time of death on Determination of Death Form	Donor surgical team(s), OT staff and donor coordinator(s)	Donor coordinator completes patient ID and sights time of death on Determination of Death Form with donor surgical team(s) and OT staff.	
47	Re-intubate trachea for lung retrieval	Thoracic anaesthetist and anaesthetic technician	If lung donation planned, patient re-intubated immediately.	

	Procedure	Action by √ when completed	Explanatory Notes
48	Transfer of patient to OT table	Anaesthetic and OT staff and donor coordinator	If lung donation planned, anaesthetic and OT staff and donor coordinator(s) transfer patient to OT table.
49	Donor surgery	Donor surgical team(s) and OT staff	Donor surgery commences immediately.
For care of patient following donation, go to No. 62			
For withdrawal of intensive therapies in OT with no family/whānau present, continue from No. 50			
50	Transfer of patient to OT	Intensivist, CCC nurse, ICU Link nurse and donor coordinator	CCC staff who will be in OT change into OT blues, if not already in OT blues. Hats are also required in OT. Intensivist, CCC nurse, ICU Link nurse and donor coordinator transfer patient to OT. Continue ventilation, arterial pressure monitoring and inotropic support, if required. Discontinue ECG monitoring. Take all medications that might be required, including heparin, opioids and sedation. Intensivist and CCC nurse continue patient care.
51	Sight patient ID	Thoracic anaesthetist or donor coordinator	If lung donation planned, thoracic anaesthetist completes patient ID with donor surgical teams and OT staff. If abdominal organs only, donor coordinator completes patient ID with donor surgical team and OT staff.
52	Preparation for lung donation	Intensivist and CCC nurse	If lung donation planned, place patient in anti-Trendelenburg with head elevated to 30 degrees on the operating table. Aspirate the nasogastric tube and void external pressure to the abdomen.
53	Patient prepared for donor surgery	Donor surgical team(s)	Patient prepared and draped for surgery. Trolleys remain uncovered in OT. A donor surgical nurse remains with sterile set-up. All other OT staff and the donor surgical team(s) (gowned and gloved) leave OT and wait in the set-up room.
54	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.
55	Withdrawal of intensive therapies	Intensivist, ICU Link nurse and CCC nurse	Withdraw all intensive therapies (ventilation, ETT and inotropes) at the same time. Continue arterial pressure monitoring (ECG monitoring will have been discontinued in CCC). An intensivist and CCC 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.
56	Determination of death	Intensivist	Determine death on the basis of: <ul style="list-style-type: none"> • 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. All equipment remains in OT until after the donor surgery. If death does not occur within the required timeframe, DCD will not proceed and care will be continued in CCC. Tissue donation can be facilitated following death.
57	CCC staff leave OT	CCC staff	All CCC staff leave the OT as soon as death has been determined and documented.
58	Inform donor surgical team(s) of death	Donor coordinator	Inform donor surgical team(s) and OT staff (waiting in set-up room) of death.

	Procedure	Action by √ when completed	Explanatory Notes
59	Sight time of death on Determination of Death Form	Donor surgical team(s), OT staff and donor coordinator(s)	Donor coordinator completes sighting of death on Determination of Death Form with donor surgical team(s) and OT staff.
60	Re-intubate trachea for lung retrieval	Thoracic anaesthetist and anaesthetic technician	If lung donation planned, patient re-intubated immediately (after CCC staff have left OT)
61	Donor surgery	Donor surgical team(s) and OT staff	Donor surgery commences immediately (after CCC staff have left OT).
For care of deceased following donation, continue from No. 62			
62	Completion of routine death documentation	Bereavement Care Service	Routine death documentation is completed by the Bereavement Care Service.
63	Care of patient following donation	OT staff, donor coordinator(s) and Bereavement Care Service	Following donation, care of the patient is carried out by OT staff, donor coordinator(s) and Bereavement Care Service. If the family/whānau wish to spend time with their family/whānau member following donation this is facilitated by the Bereavement Care Service in their Whānau Room.
64	For coronial cases	Bereavement Care Service and CCC medical staff	Bereavement Care Service will ensure the identification (if not already completed) and documentation are completed.

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