

| <u>CVICU and Level 4 OR</u> <u>Auckland City Hospital</u> | | Patient Label | |
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| DONATION AFTER CIRCULATORY DEATH (DCD) | | | |
| DATE:/...../..... | | | |
| <p>Criteria for identification of potential DCD donor:</p> <ul style="list-style-type: none"> • On ventilatory support in ICU irrespective of diagnosis • Consensus that intensive therapies will be withdrawn in the near future • Lungs – aged 75 years or less • Kidneys – all ages • Liver – all ages <p>Advice is available by contacting the ODNZ donor coordinator: 24 hour number 09 630 0935 The following procedure for DCD is listed in approximate sequence</p> | | | |
| | Procedure | Action by √ when completed | Explanatory Notes |
| 1 | Discuss withdrawal of treatment with both the patient (if he/she has decision-making capacity) and the whānau | Intensivist and CVICU 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 and takes into account the views of the patient, as far as they can be ascertained, and of the family. |
| 2 | Agreement to withdraw intensive therapies | Intensivist and CVICU nurse | A patient with decision-making capacity and the patient's whānau and the treating team must agree to the withdrawal of intensive therapies before DCD can be considered. |
| 3 | Provide space and time for patient/whānau to attend to cultural/spiritual/emotional/social needs | Intensivist and CVICU nurse patient/whānau | E.g. pastoral care, Kāmaka Waiora Māori Health Services to support whanau during this time. |
| 4 | Contact donor coordinator | Intensivist | Please discuss all patients who meet the above criteria for identification of a potential donor with the donor coordinator on call. The donor coordinator will contact the ODNZ medical specialist on call, who in turn will phone the intensivist. |
| 5 | Discuss the possibility of DCD | Intensivist & ODNZ medical specialist | <p>These issues will be addressed</p> <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. |
| 6 | Contact the CVICU Donation Link nurse | CVICU staff | CVICU staff contact the CVICU Donation Link nurse office hours Monday-Friday. |

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| 7 | Discuss organ donation with both the patient (if he/she has decision-making capacity) and the whānau | Intensivist and CVICU nurse | Discuss organ donation and explain the DCD process including: <ul style="list-style-type: none"> Continuation of care by the CVICU team, including the use of opioid and/or sedation if required. Whether therapy will be withdrawn in CVICU or OT. Whānau can only have a few minutes with their whānau member following death. The organs and tissues that are under consideration. Use of heparin. If death does not occur within the required time frame DCD will not proceed but tissue donation can be facilitated following death. Confirm the intent of the whānau (and of a patient with decision-making capacity) to proceed with DCD. |
| 8 | Inform donor coordinator | Intensivist | Inform donor coordinator of outcome of discussion, whether or not heparin will be given and whether referral to the coroner is required. |
| 9 | Donor Bloods | CVICU 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 Request Declaration, are completed. Sent Donor Pack to ACH Blood Bank (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. |
| 10 | Donor Assessment | Donor coordinator | Obtain information for the Confidential Donor Referral. |
| 11 | Medical/Social Questionnaire and Physical Assessment | Donor coordinator/Link nurse | Complete Physical Assessment and meet with family to complete Medical/Social questionnaire. |
| 12 | 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. |
| 13 | 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 CVICU staff of organs and tissues that can be donated. |
| 14 | Cessation of enteral feeding for lung donation | Intensivist and CVICU nurse | If lung donation is planned, donor coordinator will ask the CVICU staff to cease enteral feeding. |
| 15 | Determine if whānau wish to be present at time of withdrawal of intensive therapies and death. | Donor coordinator | <ul style="list-style-type: none"> It is important that the patient (with decision-making capacity) and whānau are fully in agreement with withdrawal of intensive therapies and timeline. If whānau wish to be present, withdrawal will take place in CVICU in a single room. If no whānau wish to be present at the time of withdrawal, withdrawal may take place in OT 3 (if available). |
| 16 | Written consent for organ and tissue donation | Donor coordinator | Inform 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. Whānau representative signs Authority for Organ and Tissue Removal Form. If whānau is not present, verbal consent in accord with the Human Tissue Act 2008 is documented on Authority for Organ and Tissue Removal Form. |

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| 17 | Complete patient ID with police | Intensivist | When the coroner has accepted jurisdiction, request police to attend and complete patient ID while whānau is present, preferably while the patient is in CVICU and before withdrawal of intensive therapies. |
| 18 | Inform CVICU staff | Donor coordinator | Inform CVICU staff whether consent has been obtained, for which organs and tissues, whether the whānau wish to be present and where withdrawal of intensive therapies will occur. |
| 19 | Organisation of donor surgery | Donor coordinator | Organise OR time in liaison with CVICU, Level 4 OR and the donor surgical team(s). Inform CVICU staff of OR time. |
| 20 | Organisation of OR staff | OR charge nurse | Organise OR staff (circulating nurses x 2, anaesthetic technician if lung donation is being planned) willing to be involved. |
| 21 | Patient care in CVICU | ICU staff | Continue patient care, including maintenance of adequate MAP and oxygenation. |
| 22 | OR 3 (if available) set up for donor surgery | Donor surgical team(s) and OR staff | Set up OR 3 for donor surgery. Trolleys are set up and remain uncovered in OR. Donor scrub nurse remains with sterile set-up. Donor coordinator informs CVICU staff when OR set-up is complete. |
| 23 | Planning meeting | Donor coordinator | Facilitate a meeting in Room 471, OR prior to commencement of DCD process for those who will be involved: Intensivist, CVICU nurse, OR nurses (2), anaesthetic technician (if lungs are being donated), OR HCA, 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. OR staff will provide appropriate OR attire for CVICU staff if withdrawal is going to be in OR. |
| 24 | Inform CVICU staff | Donor coordinator | Inform CVICU staff when OR staff are ready and donor surgical team(s) are gowned and gloved. |
| For withdrawal of intensive therapies in CVICU single room with whānau present, continue from No. 25 | | | |
| For withdrawal of intensive therapies in OR 3 without whānau present, go to No. 34 | | | |
| 25 | 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. |
| 26 | Preparation for lung donation | Intensivist and CVICU nurse | If lung donation is planned, place patient in a 30 degree head up position. Aspirate the nasogastric tube and avoid external pressure to the abdomen. |
| 27 | Withdrawal of intensive therapies | Intensivist and CVICU nurse | Discontinue ECG monitoring and continue arterial pressure and O ₂ saturation monitoring. Withdraw all intensive therapies (ventilation, ETT and inotropes) at the same time. An intensivist and CVICU 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. |
| 28 | 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. |

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| 29 | Transfer of patient to OR 3 | Intensivist, donor coordinator, OR HCA | Intensivist, donor coordinator and HCA transfer deceased patient immediately to OR department doors. Circulating nurses, HCA and donor coordinator transfer deceased patient into OR. If lung donation is planned, the patient remains on the CVICU bed. If abdominal organ donation only, the donor coordinator and OR staff transfer patient to OR table. The CVICU nurse provides care and support for the whānau. |
| 30 | Check patient ID and Determination of Death Form | Donor surgical team(s) OR 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 OR staff. |
| 31 | Re-intubate trachea for lung donation | Thoracic anaesthetist and anaesthetic technician | If lung donation planned, patient re-intubated immediately. |
| 32 | Transfer of patient to OR table | Anaesthetic staff, OR staff, HCA & donor coordinator | Anaesthetic staff (if lung donation planned), OR staff and donor coordinator and HCA assistant transfer patient to OR table. |
| 33 | Donor surgery | Donor surgical team(s) | Donor surgery commences immediately. |
| For care of patient following donation, go to No. 47 | | | |
| For withdrawal of intensive therapies in OR 3 with no whānau present, continue from No. 34 | | | |
| 34 | Transfer of patient to OR 3 | Intensivist, CVICU nurses, donor coordinator | CVICU staff who are going to be with the patient in OR and are not wearing scrubs require disposable gowns, hats and overshoes. 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 CVICU nurse continue patient care in OR. |
| 35 | Sight patient ID | Thoracic anaesthetist or donor coordinator | If lung donation is planned, thoracic anaesthetist completes patient ID with donor surgical team(s) and OR staff. If abdominal organs only, donor coordinator completes patient ID with donor surgical team and OR staff. |
| 36 | Option to transfer patient to OR table prior to withdrawal of intensive therapies | Anaesthetist, OR nurses, OR HCA, donor coordinator | If lung donation planned, anaesthetist, circulating nurses, OR HCA and donor coordinator transfer patient to OR table. For abdominal-only donation, circulating nurses, donor coordinator and theatre assistant transfer patient to OR table. |
| 37 | Preparation for lung donation | Anaesthetist, Intensivist and CVICU nurse | If lung donation planned, place patient in anti-Trendelenburg with head end of the operating table elevated to 30 degrees. Aspirate the nasogastric tube and avoid external pressure to the abdomen. |
| 38 | Option for patient to be prepared for donor surgery prior to withdrawal of intensive therapies | Donor surgical team(s) | Patient prepared and draped for surgery. Trolleys remain uncovered in OR 3. A donor surgical nurse remains in OR but all other OR staff and donor surgical team(s) (gowned and gloved) leave OR and wait in Back Room. |
| 39 | Administration of heparin | Intensivist | If heparin is to be given, administer 300u/kg prior to withdrawal of treatment. |
| 40 | Withdrawal of intensive therapies | Intensivist and CVICU nurse | Withdraw all intensive therapies (ventilation, ETT and inotropes) at the same time. Continue arterial pressure and O ₂ saturation monitoring (ECG monitoring will have been discontinued in CVICU). An intensivist and CVICU 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. |

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| 41 | 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 and care will be continued in CVICU. Tissue donation can be facilitated following death. |
| 42 | CVICU staff leave OR | Donor coordinator | All CVICU staff leave the OR as soon as death has been determined and documented. |
| 43 | Inform donor surgical team(s) of death | Donor coordinator | Inform donor surgical team(s) and OT staff (waiting in Back Room) of death. |
| 44 | Sight time of death on Determination of Death Form | Donor surgical team(s), OR staff and donor coordinator | Donor coordinator sights time of death on Determination of Death Form with donor surgical team(s) and OR staff. |
| 45 | Re-intubate trachea for lung retrieval | Thoracic anaesthetist & anaesthetic technician | If lung donation planned, patient re-intubated immediately. |
| 46 | Transfer of patient to OR table (if not already) | Anaesthetic staff, OR staff, HCA & donor coordinator | Anaesthetic staff (if lung donation planned), OR staff and donor coordinator and HCA assistant transfer patient to OR table. |
| 47 | Donor surgery | Donor Surgical Team(s) & OT staff | Donor surgery commences immediately. |
| Care of deceased following donation | | | |
| 48 | Completion of routine online death documentation | CVICU staff | Routine death documentation is completed by the intensivist and CVICU nurse. CVICU nursing staff notify Duty Manager of death. |
| 49 | Care of deceased following donation | OR staff, donor coordinator and CVICU nurse | Following donation, care of the deceased is carried out by OR staff and the donor coordinator. The patient will be transferred back to the CVICU if the family wish to spend time with their relative. This will be facilitated in the Whānau Room by the CVICU staff. |
| 50 | For coronial cases | CVICU staff | Notification of Police is by CVICU medical staff or nursing coordinator. Patient is transferred to CVICU. Patient ID and Life Extinct Form completed. Police organise transfer of deceased patient to the mortuary. |

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