Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

Policy:

Trillium Gift of Life Network (TGLN) supports organ Donation after Death Determination by Circulatory Criteria (DCC). Prior to TGLN's involvement in a potential DCC case, the plan for withdrawal of life sustaining measures (WLSM) must be agreed upon between patient or substitute, and the healthcare team (see *DCC Consent Process Instruction, CPI-9-240*).

TGLN staff are not involved with any decision regarding the decision to WLSM. TGLN coordinators are present during DCC as observers to the process; to document timing of the WLSM; vital sign data, including urine output if kidneys are intended for recovery; the onset of the 5-minute observation period (warm ischemic time for organ perfusion), and to support the family.

Process:

1. The Organ and Tissue Donation Coordinator (OTDC) or Clinical Responder (CR) will use the *Donation after Death Determination by Circulatory Criteria: OTDC Checklist*. See Exhibit 1.

2. The OTDC/CR will confirm with the Clinical Services Coordinator (CSC)/Tissue Coordinator (TC) if any additional blood is required. If necessary, the TGLN coordinator will arrange for the drawing and labelling of the blood samples (hemodilution calculation required) and determine if the samples will be transported with the organs or left with the patient after recovery.

3. The OTDC/CR will ensure that both physicians needed for the determination of death are on the hospital premises and immediately available. TGLN staff understands that the physician who has discussed WLSM with the family or patient is not associated with the proposed transplant recipient and is otherwise free of any apparent conflict of interest.

4. The OTDC/CR will discuss the dose of heparin that may be requested by the transplant surgeon with the Intensive Care Unit (ICU) physician prior to the time of WLSM. This must be ordered and administered by the team caring for the patient.

5. The CSC will determine the length of time the recovery teams will wait after WLSM for death to occur and notify the OTDC/CR and SRC. The length of time that teams will wait will be communicated by the OTDC/CR to the health care team:

    a. In cases of DCC kidney recovery, where kidney(s) accepted and one or more of the following is true, book OR for 3 hours

        i. lungs or heart are accepted
        ii. donor is Standard Criteria Donor

Ontario

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

iii. kidney is allocated to HSP recipient

b. In all other cases, book OR for 2 hours

6. For DCC heart, the patient will be transferred to OR for WLSM. However, this will depend on the hospital and family wishes. If not in OR, WLSM must occur within 3 – 5 mins. travel time to the OR.

7. If donor transfer is required, the ICU team will arrange to move the patient to determined area.

7. Before proceeding with DCC, the OTDC/CR will ask the nurse to ensure the following:

a. an arterial line is in place and functional. If there are any challenges with the arterial line, the OTDC/CR will place a mandatory call to the Donation Support Physician (DSP) on-call before proceeding.

b. if kidneys are intended for recover, that they empty the foley catheter bag and/or urometer.

9. The OTDC/CR establishes a DCC communications plan with the recovery team(s) and the Provincial Resources Centre (PRC).

10. The OTDC/CR and the CSC confirm with the hospital TGLN's plan for patient monitoring, data gathering, and communication during the DCC. This includes communication between the OTDC/CR and CSC/Surgical Recovery Coordinator (SRC) in the OR every 2 to 5 minutes, and as necessary during WLSM to discuss changes in the patient's hemodynamic status (vital signs related to the warm ischemic time for organ perfusion). If kidneys are intended for recovery, the patient's urine output should be recorded in the donor chart every 30 minutes post WLSM until death has been determined.

11. Prior to WLSM, the OTDC/CR huddles with the Operating Room (OR) staff to review paperwork; reviews the consent with the OR team and the recovery team, the DCC process (including DCC heart processes if applicable), and expectations of each staff member. The OR staff is reminded if death does not occur in the required timeline, DCC will not proceed. Any questions the OR staff have should be answered at this time. Huddle with OR staff should include 1.2 – 1.5 L blood collection for DCC heart, a back table set-up, and availability of defibrillator paddles.

12. Prior to WLSM, the OTDC/CR meets with the family to review the DCC process. The family is reminded if death does not occur in the required timeline, DCC will not proceed.

Ontario

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

13. The OTDC/CR ensures that s/he reviews each person's responsibilities, in addition to reviewing the documentation that is required by the hospital physicians post mortem. The OTDC/CR reminds the staff that WLSM should occur in accordance with hospital policy/standard practice, as if donation was not a consideration. The OTDC/CR also informs staff that the transplant teams and family are aware if death does not occur in the required timeline, DCC will not proceed.

    Suggested language related to the above key messages:

    "*The patient/family have made the decision to withdraw life sustaining measures (WLSM). This decision was made independent of the decision to donate. TGLN is not involved in the WLSM process, except to record and relay vital sign information. Decisions related to how WLSM proceeds, for example comfort medication, are unrelated to donation and the team should proceed as per hospital policy/standard practice. The division of these two processes are important to maintain the integrity of end of life care and donation, and the family and the recovery teams are aware the patient may not arrest in the timeline required for DCC*".

14. The OTDC/CR will review the *Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purpose of Organ Donation* (see Exhibit 2) with the physicians and ensure the Medical Certificate of Death is ready to be signed.

15. If the donor family wishes to be present (and hospital policy permits), the OTDC/CR may provide family support during the WLSM process.

16. WLSM proceeds as per the direction of the ICU team.

17. The OTDC/CR notifies the CSC, SRC or designate when WLSM has begun.

18. The OTDC/CR in attendance during WLSM evaluates and documents vital signs, and urine output if kidneys are intended for recovery, on the *Post Withdrawal of Life Support Donor Data* form in *DCC Operating Room Preparation Process Instruction, CPI-9-441.*

19. The OTDC/CR notifies the CSC/SRC/OTDC/CR in the OR and communicates with the TGLN coordinator every 2 to 5 minutes and as necessary when the patient's conditions changes dramatically (vital signs including peripheral capillary oxygen saturation (SPO_2)) and death is anticipated.

20. The SRC/OTDC/CR notifies the CSC upon cessation of spontaneous circulation and when the 5-minute observation has begun.

Ontario

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

21. The OTDC/CR notifies the recovery team(s) upon cessation of spontaneous circulation through the TGLN coordinator in the OR.

22. The OTDC/CR and healthcare team continues to provide the family with support and escorts the family out of the WLSM area once notified of cessation of spontaneous circulation as discussed prior to WLSM.

23. For organ donation purposes, TGLN requires the first physician to document the date and time of cessation of spontaneous circulation. This is the beginning of the observation period. The first physician will continuously observe the patient for 5 minutes ensuring the absence of blood pressure, absence of respiratory effort and absence of palpable pulse at the beginning and end of the 5-minute observation period.

24. Following the observation period, death is determined and documented on the *Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purposes of Organ* Donation form, by the first physician. For the purposes of post mortem transplant, the time of death is determined at the end of the 5-minute observation period in accordance with acceptable medical practice.

25. The second physician confirms death as per usual medical practice and documents this on the *Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purposes of Organ Donation* form.

26. The OTDC/CR confirms that the determination of death and second physician's confirmation of death has been documented on the *Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purposes of Organ Donation* form in accordance with the *Gift of Life Act*.

27. Additionally, the OTDC/CR ensures that all required death documentation has been completed. This may include a Coroner Permission form, and hospital-specific death form.

28. Upon pronouncement of death, organ recovery may proceed.

29. The SRC/OTDC/CR contacts the CSC to provide time ofdeath determination. If kidneys are intended for recovery, the SRC/OTDC/CR will also provide the total urine output of the patient from WSLM to determination of death. The CSC will relay this information to the relevant transplant programs.

30. In some DCC kidney cases, kidney teams may wait up to 3 hours for death to occur for kidney recovery. In these cases, if death has not occurred at approximately 2 hours post WLSM, the

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

OTDC/CR or SRC will call the CSC. If the mean arterial pressure (MAP) at this time is equal to or less than 50mmHg, the recovery team may wait for additional time, up to 3 hours, for kidney recovery. The decision about the length of time to wait by the recovery team will be communicated to the health care team.

31. In instances where the patient does not have cessation of circulation following WLSM timeframe deemed acceptable for donation by the recovery team(s) in attendance, the decision on whether or not to continue to attend with the expectation of eventual death and potential organ recovery should be discussed with the PRC to ensure all accepting transplant programs are in agreement. TGLN will support as required. If the donation is cancelled, the patient is returned to the ICU or predetermined area for continuation of end-of-life care. The CSC and OTDC/CR notify all relevant parties upon cancellation and ensure any incomplete death forms are destroyed. The OTDC/CR requests the hospital to call the PRC at time of death to assess for tissue donation if consent was obtained.

32. The OTDC/CR will enter the WLSM data into iTransplant and upload the *Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purposes of Organ Donation* form and *Donation after Death Determination by Circulatory Criteria: OTDC Checklist* into iTransplant.

Assessment of EX Vivo heart

33. The DCC Heart Recovery Team will assess the heart on the Trans Medics Organ Care System (OCS™ HEART) for up to 2 hours intraoperatively. This will include 1.2 – 1.5 L of donor blood collection.

Records:

Record Name	Form No. (if applicable)	Record Holder	Record Location	Record Retention Time (as a minimum)
Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purposes of Organ Donation	CSF-9-78	PRC	PRC	16 years

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

Post Withdrawal of Life Support Donor Data	CSF-9-77	PRC	PRC	16 years
Donation after Death Determination by Circulatory Criteria: OTDC Checklist	CSF-9-137	PRC	PRC	16 years

References:

- *DCC Consent Process Instruction, CPI-9-240*
- *DCC Operating Room Preparation Process Instruction, CPI-9-441*
- CCDT Report and Recommendations. Donation after Cardio-Circulatory Death. Feb/05.

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

Exhibit 1: Donation after Death Determination by Circulatory Criteria: OTDC Checklist Page 1

Trillium Gift of Life Network

CSF-9-137

Donation after Death Determination by Circulatory Criteria: OTDC Checklist

	Action	Notes
❑	OTDC confirms, with hospital, location (ICU vs OR) of withdrawal of life sustaining therapies (WLSM)	- Things to consider: o ICU location to OR (distance) o Recovery or Preoperative care area availability o Family presence during WLSM o OR comfort with WLSM in OR
❑	Confirm OR time and book OR	- CSC will confirm OR timing with transplant teams prior to on-site booking of OR
❑	Arrange for additional bloods, if required	- Confirm with the CSC/TC if further blood is required for tissue donation, archival, or public health - Determine if they will be given to SRC or left with the patient after recovery
❑	Determine which two (2) physicians will be immediately available for pronouncement of death	- The first physician must be a hospital physician - The second physician may be any other physician (Ontario general or educational license), such as a resident, fellow, locum, etc. - Neither physician should be involved with an intended recipient or transplant in any way
❑	Confirm availability of Anesthetist, Anesthesia Assistant or Registered Respiratory Therapist if lungs are accepted.	- Anesthetist or delegate (i.e., Registered Respiratory Therapist (RRT), or Anesthesia Assistant (AA)) in the Operating room for re-intubation, assistance with bronchoscopy, and for management of the ventilator until the trachea is clamped (approximately 1 hour). If it's suspected the donor may be difficult to re-intubate, a discussion will need to occur at the donor hospital regarding who is most capable of re-intubating in a difficult airway scenario.
❑	Discuss heparin dosing and order with ICU physician	- The actual heparin dose is determined by the transplant team, and provided to the CSC. The CSC is responsible for informing the OTDC, who in turn informs the ICU physician prior to WLSM - Heparin should be administered a few minutes before or at the time of WLSM
❑	OR Set Up	- The surgical recovery team should arrive on-site one hour prior to the intended time of WLSM; ensure they have access to OR and scrubs, if necessary - Introduce transplant teams to OR staff - The OR must be completely set up prior to WLSM - Determine best route to OR from ICU, clear a pathway as necessary
❑	Check bed height with OR bed height	- Ensure patient bed is slightly higher than OR bed for ease of transfer

Clinical Process Instruction Manual

DCC Transfer of Patient and Withdrawal of Life Sustaining Measures Process Instruction

Exhibit 2: Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purpose of Organ Donation

CSF-9-78

Patient ID

Ontario Health
Trillium Gift of Life Network

Confirmation of Death Determination by Circulatory Criteria (DCC) for the Purposes of Organ Donation
This form is also to be used in Non-Perfused Organ Donation (NPOD) lung donation after DCC/Withdrawal of Life-Sustaining Measures (WLSM).

TGLN ID:		
Assessment Method		
Indicate the method used to establish confirmation of permanent cessation of circulation.		
☐ Indwelling arterial catheter monitoring	☐ Continuous electrocardiogram (ECG) monitoring	
In circumstances where the patient does not have an indwelling arterial catheter, the only acceptable alternative method is continuous electrocardiogram (ECG) monitoring. No other non-invasive monitoring devices (e.g., point-of-care ultrasound/echocardiography) are acceptable.		
Confirmation of Death Determination by Circulatory Criteria		
Section 1: Observation Period A 5-minute observation period is required to proceed with organ donation following DCC as noted on page 2.		
Date/time of the start of the observation period	(DD-MM-YY):	(00:00):
Section 2: Time of Death For the purposes of post-mortem transplant, the legal time of death shall be determined at the end of the observation period.		
This patient fulfills the criteria for DCC as noted on page 2.	☐ Yes	☐ No
Date/time of death	(DD-MM-YY):	(00:00):
First Clinician (print):	Signature:	
Second Clinician (print):	Signature:	

Both physicians must be available to attend to the patient until the organ flush has commenced. The Ontario Health (TGLN) Coordinator will inform the physicians once organ flush has begun and relieve them of their duty.