

DCC HEART POST-ACCEPTANCE HUDDLE:

As Ontario currently does not transplant hearts from DCC donors, eligible DCC donor hearts will be offered to the United Network for Organ Sharing (UNOS) and allocated as per UNOS allocation policies. Post-acceptance of the heart the US OPO must participate in a huddle before their arrival on-site with Ontario recovery teams and the TGLN team.

- This huddle will include the heart team, lung team, abdominal team, MOC, case manager, SOTD, SRC, CSC, and CMO Donation or DSP in their absence a delegate.
- CMO donation/DSP will assume the role of moderator.
- The CSC will arrange a huddle time and a Zoom set up between all parties involved.
- Please allow at least 30 minutes to discuss important details.

HUDDLE POINTS OF DISCUSSION:

1. Introduction of members on the call and their roles.
2. Confirmation of medical license, proof of insurance.
3. Quick overview of the DCC process in Ontario and death determination process and 5 minutes hands-off period – *refer to Appendix A*.
4. Heart Team Logistics: Travel time, set up time.
 - Airport details of arrival- proximity to the hospital.
 - Travel to and from the airport and the method.
 - Travel back to the airport and method.
5. Location of withdrawal and time from WLS location to the OR.
6. Heparin administration dose and process.
7. Heart wait times up to 3 hrs **or** until all organs are closed.
8. Share and confirm with other organ programs how long they plan to wait (lung, kidney, liver, pancreas).
9. Confirm: Heart fWIT definition = SBP < 50 to heart flush 30 minutes. If in first 5 minutes, the SBP recovers, the clock restarts. After that, no reset. - Heart team to discuss.
10. All other organs should speak about fWIT.
11. The heart team plans for blood collection from the donor – explain the process and confirm if the abdomen team still able to cut/canulate during these 3 minutes. The heart team must communicate to the liver team when it's appropriate for flushing.
 - The heart team needs to try to collect 1 to 1.5 L of donor blood (preferred over banked blood). Heart team to explain how this process will be performed and what type of equipment or support they need.
 - Usually, the blood collection can take up to 3 minutes from skin cut. The timer will be set for 3 minutes by the OTDC/designate in the OR. (This is usually well in advance of liver surgeons being ready to flush.)
 - Confirm that this will be possible. If the liver is ready to flush and it is approaching its time limit, it may only be able to give the heart 90s-2 minutes.
 - In the circumstance where blood collection is not possible from the IVC, x-matched banked (washed or not washed) blood can be made available.
12. Washed blood to be ordered ahead of time by SOTD.

13. Which machine will be used for recovery? *will need a maintenance log and electrical information?*
1. OCS = HC approved.
 2. XVIVO = Not HC approved. Have to follow FDA regulations. Formal opinion from HC already gathered.
14. Is additional equipment required to recover the heart at the donor hospital?
- Own solo back table
 - Mayo stand
 - Sternal saw
 - Sternal retractor
 - Internal defibrillator
15. Case Manager to arrange SOTD support and ensure SOTDs have education material for OR.
16. Any other questions or concerns from any team members.

Appendix A:

Withdrawal of Life-Sustaining Measures (WLSM) / Invasive Physiologic Support

- This occurs at agreed upon time (family, hospital, recovery teams) at a location near the operating room, with usually less than 2 minutes travel time after death is determined by two physicians according to the *Gift of Life Act*.
- We do not use the timing of death prediction tools and actively discourage their use in general.
- The hospital team determines end-of-life care (palliative medications, timing of extubation) without advice or requests from the recovery teams. Transplant teams usually request either 500 units/kg or 1000 units/kg of heparin be administered 5 minutes before withdrawal of support. The dose is determined by the abdominal recovery team.
- Ontario Health (TGLN) staff facilitate transfer and communication of timed events (extubation, vital signs, determination of death.)
- By policy and law, clear separation of the donation support teams and any personnel related to transplant are required during this phase and afterwards.
- Recovery teams are staged in the operating room or close to the OR (in a sterile core hallway).
- Preparation and draping of the patient or positioning of the patient during the withdrawal of life sustaining measures process is not done in Canada.
- Current practice is to wait up to 3 hours for the patient to die. Organ viability is determined by individual transplant teams based on their own criteria.

Death Determination by Circulatory Criteria

- Death is determined when:
 - a. Absence of pulse pressure monitored by a continuously functioning arterial line; AND
 - b. Absence of respiratory effort (apnea);
AND
 - c. Absence of palpable pulse at the beginning and end of the 5-minute observation period
- A 5-minute “hands off period” is observed in all cases. The patient will not be moved or transferred during this period.
- Two physicians completely outside of the transplant process are required to determine death.

Operating Room Set Up

- Recovery teams must arrive 1 hour prior to the withdrawal time.
- Recovery teams may be required to bring a sternal saw and retractor if not available at the donor hospital.
- Thoraco-Abdominal normothermic regional perfusion is currently **not** permitted in Ontario.
- Recovery teams will be provided regular updates on patient condition post-WLSM
- When lungs are being recovered, an anesthesiologist or respiratory therapist will provide for reintubation and lung inflation after death is determined.
- Inflation of the lung is permitted after death determination. Tidal volume ventilation must not occur until 10 minutes post death determination. At no time is *in situ* cardiac massage permitted.
- An Ontario Health (TGLN) Surgical Recovery Coordinator is present for the duration of the recovery OR and facilitates the packaging and transportation of recovered organs. However, the heart team must bring all required supplied and be prepared to be entirely self-sufficient in recovery.
- OR staff (scrub nurse, circulating nurse, anesthesia) is provided by the recovery hospital.
- A surgical note describing the recovery must be left at the hospital prior to departure.

Post-Transplant Donor Family & Recipient Communication

- The Gift of Life Act prohibits the identification of the patient as a donor without the donor's consent which is usually not obtainable.
- Connection between the recipient and donor is not possible under current law in Ontario.
- Our coordinators will connect with the program to confirm successful transplant within 24 hours.
- Culture result follow up will be provided to transplant programs by the Provincial Resource Centre (PRC) Staff as soon as results are available.
- The recipient or family may wish to write an anonymized letter of thanks or communicate an update to the family. This is facilitated by our family services department who can be reached at familyservices@ontariohealth.ca

Sharing Donor Imaging

Images are shared in one of two forms:

- via *PocketHealth* link with a password (this is sent in an email separate to this)
- via *SyncLink*
- Images without an extension are in DICOM format and need to be read using a DICOM viewer.
- For Mac/Apple computers, the downloadable *BeeDICOM* viewer works well.
- For PCs, there are many (including MicroDicom, dicomviewer.net, and others).
- It is possible the echo images will also appear in a different format for viewing.