

Clinical Process Instruction

Organ Donor Allocation – Interprovincial Organ Sharing (IPOS) - Hearts

Policy:

Provincial donation and transplantation programs/agencies who participate in the Interprovincial Organ Sharing (IPOS) of hearts for high status heart recipients have committed to offering hearts to high status and highly sensitized patients who are matched through IPOS heart matching policies.

In accordance with provincial algorithms, Ontario Health (Trillium Gift of Life Network (TGLN)) facilitates the placement of organs donated to and within Ontario. Ontario Health (TGLN) will attempt to allocate all consented organs. The IPOS heart registry is managed by Canadian Blood Services through its Canadian Transplant Registry (CTR) and identifies transplant opportunities for medically urgent heart recipients, referred to in this document as Status 4 recipients, who are waiting for a heart transplant. In addition to Status 4 recipients, the registry also includes heart recipients that are highly sensitized to Human Leukocyte Antigens (HLA). These patients must have a cumulative Calculated Panel Reactive Antibodies (cPRA) $\geq 80\%$. For the purposes of this document, high status heart (HSH) recipients include both Status 4 and highly sensitized heart recipients. HSH recipients will be given an HSH flag in CTR and the TGLN organ allocation and transplant system.

All transplant programs and Organ Procurement Organizations (OPOs) have two hours from the time the offer is made to accept or decline the heart offer for an HSH recipient.

TGLN coordinators will ensure that all donor information exchanged with local transplant programs and/or OPOs during the offering and/or recovery process will be shared appropriately as outlined in *Disclosure of Donor and Recipient Personal Information to External Stakeholders during Offering, Acceptance and Recovery CPI-9-1306*.

For the purposes of this instruction, TGLN coordinators are defined as Clinical Services Coordinators (CSC), Referral Triage Coordinators (RTC) and Organ and Tissue Donation Coordinators (OTDC).

Note: Donor Management System information fields for types of donors by determination of death have not been updated. For the purposes of the Donor Management System Death determination by neurological criteria (DNC) equals NDD; and Death determination by circulatory criteria (DCC) equals DCD.

Procedure:

Ontario Donor

1. The CSC “pushes” donor information from the TGLN donor management system to the organ allocation and transplant system so that HLA labs can enter donor HLA typing results. Information required by the donor management system for the push to the organ allocation and transplant system includes:
 - gender

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- height
 - weight
 - ECD (Yes/No/N/A) on Donor Information Page
 - DCD or NDD on Donor Information Page
2. The HLA lab will notify the CSC when the HLA typing results have been completed and entered into the organ allocation and transplant system.
- 2.1. When the donor HLA has been entered in the organ allocation and transplant system, a six-digit national ID # for the donor will be generated by CTR and displayed in the organ allocation and transplant system.
3. To run a heart allocation, the following information is required to be pushed from the donor management system to the organ allocation and transplant system:
- Consent for heart
 - ABO (see *ABO Compatibility CPI-9-300*)
 - STAT serology (see *Infectious Disease Testing - STAT (Serology) CPI-9-211*)
 - Exceptional distribution, if applicable (See *Exceptional Distribution CPI-9-217*)
4. Required donor data elements for IPOS heart matching will be automatically sent electronically to CTR by the organ allocation and transplant system.

Generating a Heart Allocation

5. Prior to running the Heart Allocation, the CSC will ensure a six-digit national ID # has been generated and is visible in the organ allocation and transplant system.
6. When the heart allocation recommendation is run, High status heart (HSH) recipients will appear on the Heart Allocation in the category titled “HSH Patient Identified by CTR”.
- 6.1. The HSH allocation recommendation will return the following potential matches to the donor from CTR:
- 6.1.1. Recipients who are Status 4, regardless of virtual crossmatch (VXM – POS or NEG) outcome.
 - 6.1.2. Recipients who are highly sensitized (cPRA \geq 80%) with a negative virtual crossmatch ONLY. All highly sensitized HSH patients will also be assigned a medical status of 1 – 3.5.
 - 6.1.3. Recipients who are ABO compatible to the donor or identified as ‘Accept ABO Incompatible’ in their donor acceptance criteria.
 - 6.1.4. Recipients who meet the minimum and maximum donor weight acceptance criteria.

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Offering Process for HSH Recipients

7. The CSC will notify the Ontario program with the highest ranked eligible recipient that a 'heart is available' prior to contacting out of province (OOP) programs with HSH recipients.

7.1. Pediatric recipients (<19 years of age) will be prioritized on pediatric donor (<19 years of age) allocations. Pediatric donor hearts will be offered to the Ontario pediatric heart recipients prior to programs with adult heart recipients being notified. The decision to defer a pediatric heart to an adult heart recipient will (including high status recipients) will be made by the pediatric program. Deferral discussion is required in a timely manner, physician to physician. If consensus is not reached, the final decision will be made by the program with the highest ranked recipient.

8. The CSC will make an offer to the #1 ranked recipient on the allocation. Any offers made in the organ allocation and transplant system for an Ontario donor to an HSH recipient will be sent from the organ allocation system to CTR. The CSC will call the OPO or Ontario Transplant Program to advise that an offer has been made.

NOTE: When an offer has been made to the #1 ranked HSH recipient, the following notifications will be electronically generated by CTR and sent to the appropriate OPOs:

- **Offer Proposed Notification** – sent to the OPO of the #1 ranked HSH recipient on the allocation list.
- **High Status Heart Allocation Notification** – sent to the OPO of all lower ranked Status 4 recipients on the allocation list.

If no Status 4 recipients are identified, these notifications will not be sent.

9. For all lower ranked Status 4 heart recipients appearing on the allocation, the CSC will back up offer and verbally notify the OPO or Ontario transplant program that there is a donor heart available and what rank their recipient is on the HSH allocation. The CSC will provide donor information, including but not limited to height, weight, ABO, age, biological sex. Additional information will be provided as required.

9.1. All OPOs or Ontario transplant programs with a lower ranked Status 4 heart recipient will notify the CSC if they are interested in the heart.

9.2. For any lower ranked Status 4 recipient where the ODO or Ontario transplant program is not interested in the heart, the CSC respond to the offer in the organ allocation and transplant system or withdraw the offer, as required.

9.3. For any lower ranked Status 4 recipient where the ODO or Ontario transplant program is interested in the heart, the CSC will enter the response in the organ allocation and transplant system.

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10. If the heart is accepted by the transplant program or OPO with the #1 ranked Status 4 recipient, the CSC will verbally notify all OPOs and/or Ontario transplant programs with a Status 4 recipient and the Ontario transplant program with the highest ranked eligible recipient that the heart has been accepted.
 - 10.1. If there are multiple Status 4 recipients and/or the Ontario transplant program with the highest ranked eligible recipient is interested in the heart, a deferral discussion is required in a timely manner, physician to physician. If consensus is not reached, the final decision about allocation will be made by the program with the highest ranked recipient, regardless of province.
11. If the heart is declined for all Status 4 recipients, the CSC will continue offering the heart to the next highest ranked recipient in the “HSH Patient Identified by CTR” section of the allocation.
 - 11.1. Highly sensitized recipients will be offered the heart only after it has been declined by all status 4 recipients.
 - 11.2. If a sensitized recipient transplant program and the Ontario transplant program with the highest ranked eligible recipient are both interested in the heart, a deferral discussion is required in a timely manner, physician to physician. If consensus is not reached, the final decision about allocation will be made by the program with the highest ranked recipient, regardless of province.
12. If the heart is declined for all recipients listed in the “HSH Patient Identified by CTR” section of the allocation, the CSC will continue offering to Ontario recipients as per the heart allocation recommendation.

Out-of-Province Donor – High Status Heart Offer for Ontario Recipient (*Offer Proposed* notification received)

13. The Provincial Resource Centre (PRC) will receive an electronically generated **Offer Proposed** notification from CTR indicating that there is a heart offer for an Ontario recipient from an OOP donor. The OOP OPO will also contact the PRC by phone to advise of the HSH offer. The CSC will request and review the necessary donor information to register the OOP donor in the donor management system, including, but not limited to:
 - Donor chart
 - Donor ABO
 - Donor serology results
 - Donor consent
14. The CSC will obtain the six-digit National Donor ID# from the OOP OPO and enter it in the “Referral Worksheet” in the donor management system in the following format: *CTD000123*.

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NOTE: When the CTD number is pushed to the organ allocation and transplant system, the donor HLA information will be downloaded from CTR into the organ allocation and transplant system for the purposes of running the heart allocation.

15. The CSC will enter heart consent into the donor management system.
16. The CSC will populate the donor chart in the donor management system as per *CPI-9-101 Non-Ontario Organ Donation Process Instruction*.
17. CSC confirms if the donor is ExD as per the Source Establishment and updates the ExD field and reasons, as applicable, in the donor management system.
18. The CSC “pushes” donor information from the donor management system to the organ allocation and transplant system. Information required for the push so that the heart allocation can be generated is as follows:
 - ABO (electronically signed)
 - Height
 - Weight
 - Age
 - Date of birth
 - ECD (N/A) on Donor Information Page
 - DCD or NDD on Donor Information Page
 - Heart consent
 - Serology
 - National ID #
19. Prior to running the heart allocation, the CSC will ensure the six-digit National ID# (format *CTD000123*) has been pushed from the donor management system to the organ allocation and transplant system.
20. The CSC will run the Heart Allocation.
21. The CSC will locate the specific Ontario HSH recipient(s) on the allocation that the heart offer is for.
22. If the Ontario HSH recipient does not appear in the “HSH Patient Identified by CTR” section, the CSC will verify the following:
 - 22.1. Has the offering OPO made the offer in CTR? If an offer has not been made in CTR, HSH recipients will not appear in the “HSH Patient Identified by CTR” step on the allocation. In the event that the HSH recipient is not appearing, the CSC will contact the offering OPO to ensure that

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the HSH offer has been made in CTR. Once the OPO confirms they have made the offer in CTR, the CSC will re-run the allocation to verify that the HSH recipient appears.

23. The CSC will make the heart offer to the intended HSH recipient in the organ allocation and transplant system.
24. The transplant program will review all relevant donor and recipient information, and respond to the offer.
 - 24.1. The CSC will inform the OOP donor OPO of the offer outcome.
25. If there are multiple Status 4 recipients and/or the local transplant program is interested in the heart, a deferral discussion is required in a timely manner, physician to physician. If consensus is not reached, the final decision about allocation will be made by the program with the highest ranked recipient, regardless of province.

Out-of-Province Donor – High Status Heart notification (*High Status Heart Allocation* notification received)

26. The Provincial Resource Centre (PRC) will receive an electronically generated **High Status Heart Allocation** notification from CTR indicating that there is a potential heart available for a status 4 recipient from an OOP donor. The OOP OPO will also contact the PRC by phone to advise that a high status heart is available.
 - 26.1. The **High Status Heart Allocation** notification will include the following donor information:
 - ABO
 - Age
 - Height
 - Weight
 - Biological Sex
27. The CSC will phone the Ontario transplant program(s) of the status 4 recipient(s) to advise that a notification has been received and there is a potential heart available. The available donor information will be communicated to the transplant program.
28. If the Ontario transplant program is not interested in the heart, the CSC will notify the donor OPO.
29. If the Ontario transplant program is interested in the heart, the CSC will notify the donor OPO and request that the OPO proposes the offer to the Ontario status 4 recipient in CTR.

NOTE: A donor chart will not be created in iTransplant unless the Ontario transplant program confirms interest in the heart based on the basic donor information.

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30. The CSC will follow steps 13 – 20 above.
31. The CSC will make a backup offer in the organ allocation and transplant system to the Ontario Status 4 recipient.
32. If the Ontario transplant program is interested in the heart, the CSC will facilitate a physician to physician deferral discussion with the #1 ranked recipient program. If consensus is not reached, the final decision about allocation will be made by the program with the #1 ranked recipient, regardless of province.
33. The CSC or Ontario transplant program will enter the offer response in OATS.

Records:

Record Name	Form No. (if applicable)	Record Holder	Record Location	Record Retention Time (as a minimum)
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No Records

References:

None