Inter Provincial Organ Sharing of Hearts for High Status Recipients: What Physicians Need to Know

Building on foundational policy work by the Canadian Cardiac Transplant Network (CCTN), the Heart Transplant Advisory Committee (HTAC), led by Canadian Blood Services, developed policies outlining a consistent national approach that defines eligibility and prioritization requirements for listing and interprovincial sharing of donor organs for high-status heart (HSH) recipients. Canadian Blood Services has entered the final implementation phase of the Inter Provincial Organ Sharing (IPOS) of Hearts for High-Status Heart Recipients with implementation in the Canadian Transplant Registry (CTR).

To support our provincial partners through this transition, Canadian Blood Services has developed an IPOS Heart Project website that provides project updates and includes a resource section with the latest versions of the approved policies and frequently asked questions. The website can be accessed here.

To support physicians through the transition, below are highlights of upcoming changes, updates, and/or new processes that could impact clinical workflow when a heart is being allocated for high status recipients.

When Were the National Policies Approved?

The national policies were signed off by all Provinces as of February 2018 and were approved by Provincial Funding Authorities by February 2019.

Who Were They Reviewed and Approved By?

The national policies were reviewed and approved by the Canadian Cardiac Transplant Network, Donation and Transplantation Expert Advisory Committee, Organ Donation and Transplantation Expert Advisory Committee, and National HLA Advisory Committee.

Clarification of Policy CTR10.002 – Heart Allocation

Breaking ties using the ranking rules is first done for all medically urgent (status 4) patients who match the donor, followed by rank ordering the highly sensitized patients with medical statuses of 3.5 and below. When an organ heart is available for allocation, the priority is to allocate to a status 4 recipient first. Medically urgent in this context refers to the hemodynamic status only, so if the recipient is also highly sensitized (i.e. status 4 and highly sensitized) they are also considered a priority for allocation. Please refer to the below for further clarification:

1. Heart first goes through Status 4 recipients **including highly sensitized recipients**
2. If multiple Status 4 recipients are listed, then the tiebreaking ranking would proceed as follows:
   a. Organ donor <19 years & Recipient < 19 years old
   b. Pediatric recipient <19 years of age
   c. Number of Days listed at Current Medical Status (DCMS)
   d. Donor / Recipient in the same region
3. If no match or allocation within the status 4 patients (if any), the heart is then offered nationally to highly sensitized recipients with a hemodynamic status of 3.5 and below. If multiple highly sensitized recipients are listed, then the tiebreaking ranking would proceed as follows:
   a. Donor <19 years & Recipient < 19 years old
   b. Higher cPRA ranked above lower cPRA
      I. cPRA = 100
      II. cPRA = 99
      III. cPRA = 98
      IV. cPRA 90-97
      V. cPRA= 80-89
   c. Pediatric recipient <19 years of age
   d. Medical Status
      I. 3.5
      II. 3
      III. 2
      IV. 1
   e. Number of days listed at current medical status
   f. Donor and Recipient are in the same region

Terminology Update

Once implementation for high status heart recipient allocation occurs through the CTR, all highly sensitized patients (≥ 80% cPRA) will no longer be given the designation status of “4S”. In the CTR, sensitized patients will be given a “Highly Sensitized” flag that will display as “YES” next to their hemodynamic/medical status. This change was introduced to allow for the medical urgency of highly sensitized patients to be visible and useful in the prioritization of patients.

For any questions or concerns, please contact the Canadian Blood Services team at listing.allocation@blood.ca.

Recusal of a Recipient

If it is in the best medical interest of the patient, a physician/transplant program may express the need to recuse a highly sensitized patient from national sharing. If such a request is received the "High-Status Heart Allocation Recusal Notification Process" should be followed. Please refer to the High-Status Heart Allocation Offer Management, Notification, and Recusal Process that can be found here.

This process can only be used for highly sensitized patients. If a physician expresses the need to recuse a medically urgent (status 4) recipient from national sharing, the notes section in the CTR should be used.

DCMS

In regards to the "Days listed at Current Medical Status" tie-breaker discussed above, the CTR will use the entered medical status date and subtract it from the current date at which the allocation is being run to determine the days at current medical status. It is important for the current medical status to be determined based on guidelines that were developed in discussion with the Heart Transplant Advisory Committee (HTAC).

This document can be found here. Canadian Blood Services customer support can also be reached at 1-855-274-2889 to help determine the medical status that should be entered.

Using Deferred for Offer Declines

In the situation in which, following discussion, transplant programs reach consensus that a donor heart should be allocated to a lower ranked medically urgent (status 4) recipient, each ODO of every higher ranked recipient must defer the offer by choosing "deferred".

For reporting purposes and yearly review, offers that were declined with reasons as "deferred" will not be included in the overall offer decline statistics.

The Canadian Blood Services team will be reviewing process options on how to capture this deferral process in the CTR in a future enhancement.

Verbal Notification of Offers

As per policy CTR10.003 (Requirements to Offer), when an offer is proposed to the #1 ranked recipient on the allocation list, the CTR will notify all ODOs that have a medically urgent recipient listed via a CTR generated email or SMS/text. Offer confirmation to the #1 ranked recipient must occur verbally via a telephone call between the donor and recipient ODOs. A phone call should also be made to each ODO of all medically urgent recipients listed on the allocation list with basic donor information and current rank in the heart offer in play. Transplant

programs will need to work with their ODO's should they wish to create local notification rules of when physicians should be notified of a heart offer in play (i.e. only call the on-call transplant physician if rank 3 or higher, or if donor is X distance from center, or donor age is < X, etc). These local notification standard operating procedures (SOP) will be the responsibility of the transplant programs and their ODO's to establish.

Offer acceptance should also occur via a telephone call in addition to confirming acceptance via the CTR by the recipient ODO.

The receiving ODO has 120 minutes to accept the offer. The offer acceptance can be conditional pending further donor assessment. The acceptance can be given verbally followed by recording the decision in the CTR. Once this has been communicated to the donor ODO, the list is frozen as noted above. There is recognition of practical and logistical issues that could make adherence challenging. The rule is meant as a guideline to avoid a situation when an offer has been made, only to find out no work has been done by the receiving centre during that 120-minute window to determine a final decision. ODOs are required to maintain consistent communication during the offer process to ensure the allocation is moving forward expediently.