

Program	Interprovincial Organ Sharing: Kidney
Title	CTR.50.004 – Interprovincial balancing
Version (Date)	V3.0 2024-05-23
Policy Sponsor	Acting Director OTDT, Peggy John
Committee Review	Kidney Transplant Advisory Committee
Committee Endorsement	Kidney Transplant Advisory Committee, Donation and Transplantation Administrators Advisory Committee
Provincial/Territorial Sign-Off	Complete
Effective Date	2024-12-04

Purpose

The Canadian Transplant Registry (CTR) identifies transplant opportunities across Canada for patients who are waiting for a kidney transplant and who are pediatric or who are highly sensitized to Human Leukocyte Antigens (HLA). This policy describes the process for managing the number of kidneys shared between provinces under *the Interprovincial Sharing: Kidney* (IPOS) program. Interprovincial balancing ensures equitable sharing of kidneys among participants of the IPOS Kidney Program by maintaining thresholds limiting the number of exports of kidneys by any one province.

Policy

1. Exports and Imports

- 1.1 An export is counted once a kidney(s) is/are procured, determined to be of transplantable quality by the originating site, and left the donor center with the intent of being shipped to a transplant centre that has accepted the kidney, regardless of whether the kidney is ultimately transplanted into the designated recipient or another recipient or not transplanted at all.
 - 1.1.1 Export counts are awarded to the province/region of the donor's Organ Donation Organization (ODO).
 - 1.1.2 One export is counted per kidney shipped except in the case of an en bloc or double kidney offer where a single recipient receives both kidneys, in which case only a single export is counted.
 - 1.1.3 If an offer of an en bloc or double kidney is accepted for a single recipient and subsequently transplanted into two different recipients, two exports (and two imports) are counted.

1.2 An import¹ is counted once a kidney/kidneys is/are transplanted, regardless of whether the kidney (s) is/are transplanted into the designated recipient or a different recipient.

1.2.1 Import counts are awarded to the province/region of the recipient's Provincial Health Number (PHN).

1.3 If the kidney is shipped but not transplanted, the export is counted but the import is not counted.

2. Export Threshold

2.1 To facilitate interprovincial balancing, thresholds are established for each province/region² as an upper limit of the number of kidneys they are obliged to export (out of province) under the HSP Program.

2.2 The export threshold for each province/region is determined based on a percentage of its three year average number of deceased kidney donors. Thresholds are currently set at 5% of each province/region's deceased donor averages as reported by the Canadian Organ Replacement Registry (CORR).

Province/Region	Export Threshold
British Columbia	3
Alberta	2
Saskatchewan	1
Manitoba	1
Ontario	12
Québec	7
Atlantic Canada	2

3. Offer Requirement when at Export Threshold

3.1 The CTR identifies and ranks all potential recipients who match with a donor. Upon presenting potential recipient matches, the CTR alerts the user to the export balance for the donor province/region, if applicable.

3.2 A province/region must offer a donor kidney if its export balance is less than its export threshold.

4. Interprovincial Balances

¹ There is no upper limit to imports (i.e., import threshold). Although imports are not considered in interprovincial balancing, they are tracked for the purpose of monitoring interprovincial activity and net import/export activity.

² Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland & Labrador participate in the inter-provincial balancing as one region, Atlantic Canada.

- 4.1 The CTR is programmed to provide a real-time balance of interprovincial kidney transfers. A Balancing Report is available on-line in the CTR, or by request to the CTR Customer Solutions team to provide real-time balances and activity by province/region.
- 4.2 A province/region's interprovincial balance is the net of all imports less exports since the launch of the *Interprovincial Sharing: Kidney program*.
- 4.2.1 A positive balance (e.g., +3) indicates a greater number of imports than exports.
- 4.2.2 A negative balance (e.g., -2) indicates a greater number of exports than imports. (Example: Province A has imported 11 kidneys and exported 13 kidneys since the launch of Interprovincial Sharing: Kidney program. Its balance is -2.)
- 4.3 Balances are between a province/region and the rest of Canada, not between 2 provinces/regions.
- 4.3.1 The balance accounts for only those interprovincial transfers that take place through participation in the *Interprovincial Sharing: Kidney program*. All kidney allocations that take place outside the program are not counted.
- 4.4 To minimize organs being shipped unnecessarily, the matching algorithm for the *Interprovincial Sharing: Kidney program* gives priority to recipients in the same province/region as the donor.
- 4.4.1 Kidney allocations within the same province/region as the donor have no net effect on imports, exports, or balancing, even though it may occur as part of the *Interprovincial Sharing: Kidney program*.

5. Governance

- 5.1 This Interprovincial Balancing Policy, including provincial/regional thresholds, will be reviewed bi-annually, at a minimum, by the Kidney Transplant Advisory Committee (KTAC).
- 5.2 Policy changes may be proposed by Canadian Blood Services, KTAC, or any participating province/region.
- 5.3 Requests for review of proposals or modifications to HSP balancing should be made to Canadian Blood Services.
- 5.4 Any disputes regarding HSP balancing should be referred to Canadian Blood Services for analysis and, if required, consideration by the KTAC

Version History		
Version	Date	Comments /Changes
V3.0	2024-05-23	Export threshold section 2.2 updated to define donor to

		deceased kidney donor and removed 3 years 2012-2014 for averages, donor averages remain the same to date. -Governance section updated to remove policy approval by ODTEAC, in place of new governance structure
v2.0	2016-12-01	Revised according to discussion at KTAC Meeting on 2015-09-24 and 2016-05-18: <ol style="list-style-type: none"> 1. Concept of an import threshold removed 2. Revisions to export threshold numbers based on 2012-2014 deceased donor numbers 3. Net balance calculation clarified 4. Added specificity in terms of export count (i.e., whatever “type” of kidney is shipped, it is ONE export if is transplanted into one recipient) 5. Emphasis that requirement to offer does not apply when a province/region is at its export threshold 6. Emphasis that when what is shipped is not ultimately used, there is no import 7. Minor edits to align with new policy template and language, updating program name from HSP to Interprovincial Organ Sharing (IPOS).
v1.2	2013-01-10	Minor edits
v1.0	2012-10-09	Moved to Official Documents Folder
v1.0	2012-06	Presented to ODTEAC
v1.0	2012-03-30	Original version

References

1. Balancing reviewed by NKRAC (September 2011)
2. Balancing presented at ODTEAC (January 2012)
3. Canadian Highly Sensitized Patient and Living Donor Paired Exchange Registries: Task Force Discussion Document (October 2005)
4. Assessment and Management of Immunologic Risk in Transplantation. A Canadian Council for Donation and Transplantation Consensus Forum Report and Recommendations (January 2005)
5. Kidney Allocation in Canada: A Canadian Forum Report and Recommendations (February 2007) HSP Discussion Document 2016-001 HSP Export Thresholds (April 2016)