

Canadian Transplant Registry

Version Changes

2022-09-12 – Release Notes 5.2 (5.2.8.1) – Version 2

Public (P)

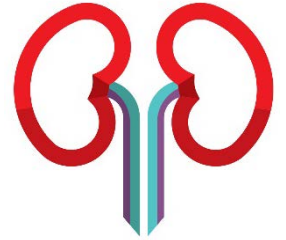
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Canadian Transplant Registry

Overview

Canadian Blood Services works with the Organ and Tissue Donation and Transplantation (OTDT) community across the country to facilitate inter-provincial organ sharing and to improve national system performance through the development of leading practices, professional education, public awareness, and data analysis and reporting.



The Canadian Transplant Registry (CTR) is an innovative technology that generates value in terms of quality, safety and efficiency through its capabilities for supporting all donors, candidate listing, offer management, allocation and pre- and post-transplant data. CTR is a national web-based computer program that supports Canada's national programs (Kidney Paired Donation, Highly Sensitized Patients, and National Organ Waitlist), and is used for linking the national potential recipient waitlist with actual organ donors. CTR provides timely access to high quality organ donation and transplantation information for patient care, system management, and accountability.

CTR features:

- Advanced capabilities for allocating living and deceased donor organs and for generating the important data needed to improve transplant system performance
- Improved access to transplants for highly sensitized patients
- Increased effectiveness and efficiency of national organ sharing programs for living donors and for patients who are critically ill
- State of the art, high quality human leukocyte antigen typing and antibody analysis, that is the most comprehensive of any matching system in the world – leading to more successful transplantation and less rejection
- Real-time information sharing and file uploads to facilitate the decision-making process and create efficiency by eliminating faxes and phone calls
- Can be used on any device – computer, tablet, even mobile phone
- With more than 400 users from coast to coast, CTR currently supports Canada's national programs – Kidney Paired Donation, Highly Sensitized Patients, and National Organ Waitlist
- Work is underway to expand this technology to serve even more patients in need of transplant

Use of this Change Document



These release notes assume that the user has valid access to CTR to perform the required functions of their role. In order to receive the proper level of access, a request may be made through Customer Support.

CTR currently has 7 User Acceptance Testing (UAT) environments available in addition to the main CTR Production environment. For information regarding these environments, please consult <https://ctrstatus.otdcalculators.ca/>. Information about the status of these environments, as well as the Canadian Transplant Registry Integration Guide may be found there.

Change Document Format

The release notes / list of changes contained in this document will be broken down into key sections:

- A recap or link to the changes introduced in the previous release to the production environment
- New changes contained in the version outlined on the document cover broken down by Fixes, Improvements, and New Features
- A high level plan of changes to come in the following release

The format for each change introduced will be outlined as follows.

Release Version ¹	Reference ²	Category ³
5.2	CTRII-8752	Feature
Feature Title ⁴		
Enhancement to the Domino Chain - End Offer Recipient Assignment		

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program⁶	Kidney Paired Donation
Patient⁷	All
Section⁸	Match Run / Offer Management

Description: ⁹

Functionality available to a Kidney Paired Donation (KPD) Program Administrator, which allows them the ability to identify potential recipient candidates from the Deceased Waitlist Program, based on a KPD donor.

This functionality is extended to allow finding and assigning potential recipients to the end-offer in a domino chain.

Legend

1. Version of CTR in which the change has been applied.
2. Internal CTR reference number. May be used when communicating with CTR regarding the change.
3. Type of change introduced, broken into three categories: Fixes, Improvements, and (New) Features.
4. For new features, a short description of the change.
5. The area that is affected by the change. Web Browser Interface (UI), or Web Services / API. For Web Service changes, the affected endpoints and methods will also be outlined.
6. The CTR program being updated.
7. The patient in CTR affected by the change – Donor, Recipient, or All.
8. The section in CTR affected by the change.
9. A plain language description of the change. This area may also contain references to other internal CTR IDs that are associated with the change. Where applicable, screenshots or diagrams of the updates may be included to support the description.

Previous Production Update

Recap of CTR 5.1 Changes

Update to HSP Kidney Eligibility

CTR 5.1, released on 2022-03-24, included functionality to support changes to a patient's eligibility for the Deceased Waitlist HSP Kidney program via Inter-Provincial Organ Sharing (IPOS). Changes to the eligibility criteria are controlled by a feature switch. When activated, the updated eligibility criteria will be used, allowing for more patient participation and acceptance in the Deceased Waitlist HSP Kidney Program.

As of 2022-09-12 this functionality has not yet been activated, and the current eligibility criteria is still in use to evaluate all patients. A full scope of updates from this release may be found in the Version Change document for 5.1.19.1 at the following link: [CTR Version 5.1 – Version Changes](#).

CTR Version 5.2 Release Candidate

CTR v5.2 – Enhancements and Updates to Kidney Paired Donation (KPD) and Deceased Waitlist (DWL)

KPD:

In the current **CTR (Version 5.1)**, the system creates a shell recipient record for the offer at the end of the domino chain. The recipient coordinator at the applicable program can a) decline the offer and reassign one of their existing recipient records into the offer, b) create a record for a transplant candidate within the existing shell record, or c) reassign the offer to another transplant centre.

The **CTR v5.2** release allows a new recipient record type, "Waitlist Recipient," to be created using the Patient Wizard. In addition, there is an update to add a new type of recipient, which is assigned to the end offer in a domino chain (Unconsented Recipient).

CTR v5.2 functionality works as follows:

- When creating an organ request for a new recipient you must select the *recipient type* from the drop-down menu.
- KPD Recipient Types will be as follows:
- Registered Pair Recipient – Coordinator will create, and the system will allocate them to a chain if matched.
- Waitlist Recipient – Coordinator will create and assign to the end offer in the associated domino chain.
- Unpaired Recipient – may only be created by KPD Administrators
- Unconsented Recipient – created by the system in the end offer of a domino chain when a match run is published. Once the end offer exists, the Unconsented Recipient may be reassigned.
- The data elements in an Unconsented Recipient record are non-identifying and read-only.
- A user will only be able to accept the offer and move it to a state of 'transplanted'.

End Offer Assignment Process:

- The Offer must always be declined to re-assign a new recipient in the end offer.
- Coordinators will decline the end offer and then select their waitlist recipient or another transplant program that will allocate a recipient the end offerspot.

CTR v5.2 (5.2.8.1)**Improvements – Deceased Waitlist**

Release Version	Reference	Category
5.2	CTR11-8951	Improvement

Interface	Email
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Deceased Wait List
Patient	Recipient
Section	High-Status Heart Offer / Allocation Notification




Added the **Declaration of Death** (DCD or NDD) to the high-status heart offer/allocation notification.

Release Version	Reference	Category
5.2	CTRII-9197	Improvement

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Deceased Wait List
Patient	Recipient
Section	National Wait List

Filtering text in the **Comments** column of data has been improved.

National Waitlist

 Refresh
  Print
  Help
  Export

Last Refreshed: 2022-06-24 15:06:25 (ET)

Filter: Organ[Heart,Liver,Lung,Pancreas,Small Bowel,Stomach] /Comments [3] /Urgency[Active]

Eligibility	MS	Highly Sensitized	Comments	Urgency	State	ABO	Age
HSH: Yes	4	No	Heart: min wt(kg)= 3, max wt(kg)= 12, accept incompatible ABO, no DCD	Active	Active	A	0.2
HSH: Yes	4	No	Heart: min wt(kg)= 3.4, max wt(kg)= 13, accept incompatible ABO, -	3			
HSH: Yes	4	No	Heart: min wt(kg)= 3.2, max wt(kg)= 12, accept incompatible ABO, no DCD	Yes	Active	A	0.2
HSH: Yes	4S	Yes	Heart: min wt(kg)= 35, max wt(kg)= 80, no DCD	Yes	Active	O	18.3

Release Version	Reference	Category
5.2	CTR11-9340	Improvement

Interface	Web Services / SOAP API
Web Service Endpoint	CTR1, CTR2
Web Service Method	getHSPMatchForDonor previewHSPMatchForDonor runHSPMatchOnDonor
Program	Deceased Wait List
Patient	Recipient
Section	Allocation

Updated the cPRA value in the web service response.

In scenarios where a recipient has many serum results, which have different cPRA values, the results returned contains the **correct cumulative cPRA** value.

Improvements – All Programs

Release Version	Reference	Category
5.2	CTR11-9360	Improvement

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	All
Patient	Recipient
Section	Offer Side-by-Side Report

Fixed a discrepancy on the Offer Side-by-Side report, specifically related to an offer that includes Willing to Cross HLA values.

When antibodies were crossed for the offer, one section of the report identified the crossed antibodies, while another section of the report indicated there are no crossed antibodies. The section of the report stating there were no crossed antibodies has been corrected.

Improvements – Kidney Paired Donation

Release Version	Reference	Category
5.2	CTR11-9362	Improvement

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Kidney Paired Donation
Patient	Recipient
Section	Post-Transplant

An offer with an Unconsented Recipient previously displayed the recipient's age as zero (0), when the age must not be displayed at all.

Release Version	Reference	Category
5.2	CTR11-9452	Improvement

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Kidney Paired Donation
Patient	Recipient
Section	Post-Transplant

An unexpected error when attempting to add a previous transplant to an Unconsented Recipient has been corrected.

New Features - Kidney Paired Donation

Release Version	Reference	Category
5.2	CTRII-8752	Feature
Feature Title		
Enhancement to the Domino Chain - End Offer Recipient Assignment		

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Kidney Paired Donation
Patient	All
Section	Match Run / Offer Management

Description:

This feature includes the introduction of a new 'Unconsented Recipient' type which is automatically assigned to the end offer of a domino chain when the chain is published in CTR. This recipient record type is extremely limited in functionality; it limits the data-entry options and can be created only by the the CTR. The only visible information that will be contained in the record is the **CTR ID, the organ request details** and the **transplant program**. Once accepted, the offer can be accepted and a transplant recorded. No post-transplant data will be collected on these Unconsented Recipient records.

The previous functionality of a 'system-generated shell record' will no longer exist. To assign someone from your waitlist to the end of chain offer, you must first create a record for that patient with recipient type of 'Waitlist Recipient.' The end offer of the domino chain can then be declined and the waitlist recipient record that you created can be selected from a list that will appear.

Alternatively, the end of chain offer can be re-assigned to another transplant centre.

If a waitlist recipient is assigned to the chain and cannot proceed, the offer can be declined and re-assigned to an alternate recipient or another transplant centre, as required.

Additional CTR References associated to this feature:

CTRII-9246	CTRII-9247	CTRII-9249	CTRII-9250
CTRII-9252	CTRII-9253	CTRII-9254	CTRII-9255
CTRII-9262	CTRII-9324	CTRII-9351	CTRII-9364
CTRII-9392			

CTR044068. Recipient.

Save Refresh Print Help History Close

Personal Contact **Registration / Activation** Offers Peri / Post Transplant

*+ Transplant Type:
Single

Organ Requests - Select a row from the list to view details below

Primary Key ID	Organ	Organ Type	Program	Recipient Type	Medical Status	Highly Sensitized	Medical Status Change Date / Time (ET)	State
151286	Kidney		Kidney Paired Do...	Unconsented Reci...	1		2022-06-24 13:56...	Active

ORGAN REQUEST DETAILS

*+ Organ: Kidney Organ Type: Please Select *+ Program: Kidney Paired Donation

*+ Medical Status: 1 *+ Medical Status Change Date / Time: 2022-06-24 13:56 ET

*+ State: Active *+ Reason for State: KPD Match Run Ready State Change Date / Time: 2022-06-24 13:56:00 ET

PROGRAM DETAILS

KPD Eligible: Yes

*+ Recipient Type: Unconsented Recipient

The default when the offer is proposed will show an “Unconsented Recipient” placeholder.

Offer Details Side-by-Side

Chain: 20.Testing Matching Config.1 [Go To Chain View](#)

Offer ID: CTR044068 - CTD037412 [History](#) Offer Progress: 0 of 0 tasks completed

State of the Offer: Declined - Temporary State Change Date: 2022-06-24 14:27:00 (ET) Crossed Antibody for Offer:

Offer Decline Reasons: Donor Unavailable

Offer Decline Comments:

Patient Travelling: Donor Surgical Site: St. Paul's Hospital, Providence Health Care

RECIPIENT TASKS

[CTR044068](#)

Unconsented Recipient

Patient Facility:
BC-VAN-SPH - St. Paul's Hospital, Providence Health Care

[Re-assign Recipient](#)

[Re-assign Transplant Centre](#)

[Re-assign Unconsented Recipient](#)

DONOR TASKS

[CTD037412 37412 - last_name , 37412 - first_name](#)

Patient Facility:
ON-OTT-TOH - The Ottawa Hospital

SURGICAL TASKS

Surgical Site:
BC-VAN-SPH - St. Paul's Hospital, Providence Health Care

Donor Cleared:
Yes

Recipient Cleared:
Yes

[Accept](#) [Decline](#) [Not Transplanted](#)

The screenshot displays the 'Offer Details' page for offer CTR044068. The offer is in a 'Declined - Temporary' state. A modal window titled 'End Offer List - BC-VAN-SPH - St. Paul's Hospital, Providence Health Care' is open, showing a table of waitlist recipients. A yellow arrow points to the 'Re-assign Recipient' button in the recipient task list.

	National Patient ID	Recipi... Type	Last Name	First Name	VXM ↑	ABO	ABO Match
<input type="radio"/>	CTR033695	Waitlist Recipient	33695 - LAST_NAME	33695 - FIRST_NAME	POS	A	Yes

1. To assign a recipient from your waitlist to the end offer in the chain, decline the current offer and re-assign as shown above. When selecting “Re-assign Recipient” you will now be able to view and assign the local waitlist recipient record(s) created by your program in the list.
2. The end offer record can also be re-assigned to another ‘Transplant Centre.’
3. The end offer record, in rare circumstances, can also be re-assigned to a second Unconsented Recipient. If this happens, please consult with the KPD team before proceeding.

NOTE: The final record type of ‘Unconsented Recipient’ may only remain under the guidance of the KPD Administrators.

Release Version	Reference	Category
5.2	CTRII-9396	Feature
Feature Title		
Increasing match possibilities via subtyping of Blood groups - User Interface updates		

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Kidney Paired Donation
Patient	All
Section	Health / Organ Requests

Description:

In version 5.1 of the Canadian Transplant Registry (CTR), a Kidney Paired Donation feature was introduced that permitted defining ABO-A subtypes, as well as matching acceptance criteria associated to the subtype.

Version 5.2 adds visual indicators related to the ABO subtypes. If sub-typing values and filters have been entered in the living donor and recipient records, these entries will be visible on the patient record and in the side-by-side.

NOTE: the non-A₁ matching functionality is not active in KPD as of 2022-09-01 but living donation programs are encouraged to sub-type their blood type A donors and enter the data in the records to be prepared for matching.

Additional CTR References associated to this feature: CTRII-9163 CTRII-9210

The screenshot shows a web interface with two tabs: 'Offer Details' and 'Side-by-Side'. The 'Side-by-Side' tab is active. It displays a comparison between a Recipient (CTR044068) and a Donor (CTD037412). Under the 'HEALTH' section, there are two columns of data. The left column shows 'No Data' for the recipient. The right column shows the donor's data: 'Last Updated' (2021-03-09 14:40:14 ET), 'ABO' (A), 'ABO Subtype' (Non-A₁), 'Height (cm)' (152), 'Weight (kg)' (46.8), and 'BMI' (20.3). A large yellow arrow points from the 'No Data' area towards the 'ABO Subtype' field.

Release Version	Reference	Category
5.2	CTRII-9395	Feature
Feature Title		
Support for Willing to Cross - KPD-specific updates		

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Kidney Paired Donation
Patient	All
Section	Match Run Details / Offers / HLA

Description:

The application (CTR) has been updated to include Willing to Cross information on the Kidney Paired Donation match report details and offers.

This doesn't change previously released functionality; it only adds details to the user interface (what the user sees in CTR) and reports. The antibodies that the transplant program is crossing for the recipient will appear in the chain graphic and in the offer details.

Note: Willing to Cross functionality will be visible, but matching functionality is not active as of 2022-09-01.

Additional CTR References associated to this feature:

CTRII-9106

CTRII-9108

CTRII-9110

Match Cycle 20. Match Run Testing Matching Config. MatchRun. Executed 2022-06-24. Publish



Details

Combination:	Chain State:	Chain Collapsed:
1	Open	No
Chain:	Chain Type:	Chain Points:
1	Domino	953
Chain Extension Possibilities:	Chain can be Split:	Domino can be Converted to N-Way:
0	No	No

[Offer 1](#)

State	Proposed	
Match Points	355	263
Donor	CTD043621	CTD035973
ABO	O	B
Age	64	48
Travel	Yes	Yes
Flags		
Facility	BC-VAN-SPH	ON-TOR-TGH
Referral Centre		
	Add	Add
Primary Contact(s)		
Recipient	CTR036118	CTR041366
ABO	O	B
Age	27	67
Travel	No	Yes
cPRA	99	98
Adjusted cPRA		
Crossed Antibodies	DQ7	
Antigen Mismatch	2/6	3/6
Dialysis(days)	1659	848
Flags	HSP	HSP
Facility	ON-TOR-TGH	ON-OTT-TOH



Offer CTR036118 - CTD043621. Chain 20.Testing Matching Config.1. Proposed. 2022-06-24 13:56:28



Offer Details

Side-by-Side

XM Details

Chain:

20.Testing Matching Config.1

Offer ID:

CTR036118 - CTD043621 [History](#)

State of the Offer:

Proposed

Patient Travelling:

Donor

[Go To Chain View](#)

Offer Progress:

0 of 9 tasks completed

State Change Date:

2022-06-24 13:56:28 (ET)

Crossed Antibody for Offer:

DQ7

Surgical Site:

Toronto General Hospital - University Health Network



RECIPIENT TASKS

[CTR036118](#) 36118 - last_name , 36118 - first_name

Registered Pair

Patient Facility:

ON-TOR-TGH - Toronto General Hospital - University Health Network

Recipient Side-By-Side Review

XM Scheduled For:

YYYY-MM-DD

DONOR TASKS

[CTD043621](#) 43621 - last_name , 43621 - first_name

Patient Facility:

BC-VAN-SPH - St. Paul's Hospital, Providence Health Care

Donor Side-By-Side Review

Donor Travel Discussed

Donor Chart Shipped On:

YYYY-MM-DD

Donor Blood Shipped On:

YYYY-MM-DD

Donor Blood Shipped Details:

Fixes – All Programs

There are no bug fixes contained in this release.

Known Issues

There are no known issues in 5.2.8.1.

CTR v5.2 Future Changes in Release Candidate (Known/Anticipated)

There are no known updates remaining in CTR v5.2.8.1.

CTR v5.2 Reference Number List

The following is a list of CTR Reference IDs referred to in the new features introduced.

- CTRII-9246 - KPD End Offer Eligibility Report
- CTRII-9247 - Defining the Unconsented Recipient
- CTRII-9249 - Chain and Offer View in a Published Match Run
- CTRII-9250 - Reassigning a Recipient to the End Offer
- CTRII-9252 - Waitlist Recipient Patient
- CTRII-9253 - Reassigning a NEW Unconsented Recipient to the End Offer
- CTRII-9254 - Re-assigning Transplant Centre
- CTRII-9255 - KPD Recipients: Update to Lists and Reports
- CTRII-9262 - KPD End Offer List
- CTRII-9324 - Archive: Waitlist Recipient-TBD & Waitlist Recipient - Not Consented
- CTRII-9351 - System-Wide Updates Roles and Actions
- CTRII-9364 - Additions to User Story CTRII-9249 (Chain and Offer View in a Published Match Run)
- CTRII-9392 - No Post Transplant Data input for the Unconsented Recipient
- CTRII-9163 - ABO Incompatible - KPD Match Run Results include ABO Sub-Types
- CTRII-9210 - Recipient ABOi Match Filter Criteria to be Configurable
- CTRII-9106 - KPD: 'WTC' Flag for a Matched Pair with Crossed Antibodies on the Chain Detail Tab
- CTRII-9108 - KPD: New fields on the Chain Detail Tab for ABO group & Willing to Cross
- CTRII-9110 - KPD: Match Run Section & Combination Panel update to identify number of offers with crossed antibodies

Upcoming Changes

CTR Version 5.3 (February 2023)

The following is a list of the currently anticipated updates coming to CTR in the 5.3 Release and is accurate as of 2022-09-12.

- KPD: Support for a Single Offer Domino Chain to match a transplant candidate directly to an NDAD
- KPD: Offer Management – Update to the Offer Details
- KPD: Usability Improvements
- DWL: Webservice support for Pre-emptive and WTC eligibility

Note: Discussions are not yet finalized, but CTR is targetting the 5.3 Release currently anticipated to be released in February 2023 to turn on the feature switches for both the IPOS Heart and IPOS Kidney updates.

Customer Support

For assistance with the information contained in this document, please contact our CTR Customer Solutions Team via email at transplantregistry@blood.ca or call 1-855-274-2889.

If you are calling outside of normal office hours, dial '1' to speak to on-call CTR Customer Support personnel.