

Canadian Transplant Registry

Version Changes

2022-11-07 – Release Notes 5.3 (5.3.8.1)

Public (P)

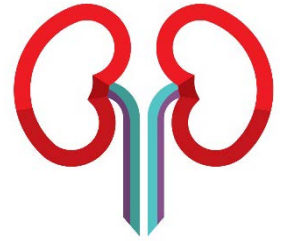
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Canadian Transplant Registry

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 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 Updates

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 2022-11-07 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](#).

Recap of CTR 5.2 Changes

KPD

CTR 5.2, released on 2022-09-20, 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.
- **REMINDER:** coordinators will need to **create** a new organ request using the recipient type "Waitlist Recipient" (the same way a registered pair recipient is created) to allocate a recipient to the end of the domino chain.

A full scope of updates from this release may be found in the Version Change document for 5.2.8.1 at the following links: [CTR v5.2 – Version Changes](#) (English) and [RCT v5.2 - Modifications de version](#) (Français).

CTR Version 5.3 Release Candidate

KPD

- Support for Single Offer Chains
 - KPD Administrators gain the ability to define constraints on an anonymous donor (NDAD), resulting in a Match Run potentially including a Chain with a single offer.
- Offer Management
 - Default settings for new KPD offers updated from “Patient Travelling - Donor” to “Patient Travelling - None”.
 - Adjustment of task assignments on the Offer Details tab to include “Donor Medically Accepted On” and “Kidney Surgically Accepted On” fields in the Recipient Task section.
 - A “General Comments” section is added. Non-administrators have access to record comments on the offer.
- Updates to ABOi Match Filter Acceptance Criteria and Matching Rules
 - Match filter criteria and the associated label (donor acceptance criteria) for recipients with a blood group of B is updated to indicate willingness to consider non-A₁ and non-A₁B subtyped donors.

IPOS Kidney

- Web Service and Matching Algorithm Updates
 - CTR3 methods updated to include the Willing to Cross Eligible value associated to the recipient.
 - The ability to set and get the recipient’s Pre-Emptive value has been included in web service methods.
 - When the IPOS Kidney program is enabled, the matching algorithm will exclude the minimum age acceptance criteria, which is defined by the recipient – on the recipient’s organ request – and compared to the donor’s age. This exclusion is only applicable to the IPOS Kidney program.

DWL

- High Status Heart Organ Allocation
 - When making a high-status heart offer, the system will automatically send the new DWL High Status Heart Allocation notification to users.

Note: Discussions are not yet finalized, but CTR is targeting the 5.3 Release to turn on the feature switches for both the IPOS Heart and IPOS Kidney updates.

CTR v5.3 (5.3.8.1)

Improvements – Deceased Waitlist

Release Version	Reference	Category
5.3	CTR11-8904	Improvement

Interface	Web Browser Interface and Web Services / SOAP API
Web Service Endpoint	CTR3
Web Service Method	makeHshOffer
Program	Deceased Wait List
Patient	Donor
Section	High Status Heart Organ Allocation

When making a high-status heart offer, the system will automatically send the new **DWL High Status Heart Allocation** notification to users.

This alert is independent from any user selected notification setting under **DWL Offer Proposed**.

When using the **makeHshOffer** web service, the option to send alerts is defined in the **<arg3>** data element.

New Features - Kidney Paired Donation

Release Version	Reference	Category
5.3	CTRII-9382	Feature
Feature Title		
Support for Single Offer Chains, with an Anonymous Donor (NDAD) to an Undefined Recipient		

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 new feature is restricted to Kidney Paired Donation (KPD) Administrators. The feature allows a KPD Administrator the ability to define constraints on an anonymous donor (NDAD), resulting in a Match Run potentially including a Chain with a single offer, made up of the NDAD and an Undefined Recipient.

Stories associated to this feature:

CTRII-9438 CTRII-9439 CTRII-9440 CTRII-9441
 CTRII-9442 CTRII-9443

Release Version	Reference	Category
5.3	CTRII-9383	Feature
Feature Title		
KPD Offer Management: Offer Details Updates and Enhancements		

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 is specific to the Kidney Paired Donation offer management functionality. There is a change to the default setting for new KPD offers from “**Patient Travelling - Donor**” to “**Patient Travelling - None**” *when the donor and recipient are from different programs*. In most KPD offers, nephrectomy is performed at the donor’s centre and the kidney is shipped to the recipient’s centre.

The new default setting also adjusts the task assignment on the Offer Details tab. When the kidney is shipped, tasks will appear in the Recipient’s Task section. The tasks assigned to the recipient centre are “**Donor Medically Accepted On**” and “**Kidney Surgically Accepted On**”.

When the kidney is shipped, the donor does not require clearance by the recipient centre. The updated tasks indicate that the donor kidney is acceptable for their recipient.

The updates include a change to the default **Patient Travelling** setting for an offer, the information displayed on the **Offer Details** screen, and adds the ability for non-administrators to record comments on the offer under a new **General Comments** section.

Stories associated to this feature:

CTRII-9385	CTRII-9386	CTRII-9388	CTRII-9398
CTRII-9399	CTRII-9400	CTRII-9401	CTRII-9403
CTRII-9404	CTRII-9424	CTRII-9427	CTRII-9428
CTRII-9429	CTRII-9430		

Offer CTR036118 - CTD043621. Chain 46.10.1. Proposed. 2022-05-26 11:27:43 (MT)

Save Refresh Print Help History Close

Offer Details Side-by-Side XM Details

Chain:
46.10.1
Offer ID:
CTR036118 - CTD043621 [History](#)
State of the Offer:
Proposed

Go To Chain View

Offer Progress:
2 of 9 tasks completed

State Change Date:
2022-05-26 11:27:43 (MT)
Crossed Antibody for Offer:

Patient Travelling:
None

Recipient Surgical Site:
Toronto General Hospital - University Health Network
Donor Surgical Site:
St. Paul's Hospital, Providence Health Care

Shipped Kidney:
Yes

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 Medically Accepted On: YYYY-MM-DD
Required to accept the offer
Kidney Surgically Accepted On: YYYY-MM-DD
Required to accept the offer

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:

SURGICAL TASKS

Surgical Site:
ON-TOR-TGH - Toronto General Hospital - University Health Network
Donor Cleared:
No
Recipient Cleared:
Yes

What's new: When the kidney is set to **Patient Traveling-None**, and the kidney is shipped the **Donor** is not medically and surgically cleared. The tasks will now appear in the Recipient Tasks as: **Donor Medically Accepted** and **Kidney Surgically Accepted**. Additionally, both the Recipient and the Donor's surgical sites appear at the top of the page. There is now a "General Comments" section where end users can add comments about the offer.

KPD ADMINISTRATOR COMMENTS

Add

Comment	Updated By	Updated Date (MT) ↓	Private	Delete

GENERAL COMMENTS

Add

Comment	Updated By	Updated Date (MT) ↓	Delete

Accept Decline Not Transplanted

Release Version	Reference	Category
5.3	CTRII-9580	Feature
Feature Title		
KPD: Updates to ABOi Match Filter Acceptance Criteria and Matching Rules		

Interface	Web Browser Interface
Web Service Endpoint	N/A
Web Service Method	N/A
Program	Kidney Paired Donation
Patient	All
Section	Match Run / Recipient Organ Request, Match Filter Acceptance

Description:

Updates to the existing ABOi functionality. The match filter criteria and associated label (donor acceptance criteria) for recipients with a blood group of B is updated to indicate willingness to consider non-A₁ and non-A₁B subtyped donors.

The matching algorithm has been updated to consider the change to the match filter criteria.

Note: The label changes were added to ABOi functionality released in v5.2 in preparation for when ABOi functionality is implemented in KPD.

Stories associated to this feature:

CTRII-9592

CTRII-9594

Release Version	Reference	Category
5.3	CTRII-9669	Feature
Feature Title		
KPD: Matching Algorithm updated to include Match Points for HLA Adjudication and Age Delta		

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

Description:

The matching algorithm has been updated to assign Match Points Adjusted cPRA values in the range of 99.0% to 99.4%.

Stories associated to this feature:

CTRII-9667

CTRII-9668

CTRII-9670

Release Version	Reference	Category
5.3	CTRII-9675	Feature
Feature Title		
KPD: Matching Algorithm updated to include Match Points for HLA Adjudication and Age Delta		

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

Description:

The matching algorithm has been updated to assign Match Points for specific HLA Adjudication and Age Delta values.

Stories associated to this feature:

CTRII-9676

CTRII-9677

CTRII-9678

New Features - Deceased Waitlist / IPOS Kidney

Release Version	Reference	Category
5.3	CTRII-9599	Feature
Feature Title		
IPOS Kidney – Web Service and Matching Algorithm Updates		

Interface	Web Browser Interface and Web Services / SOAP API
Web Service Endpoint	CTR3
Web Service Method	updateRecipientHlaSerumTestResult findAllRecipientSerumTestResults addRecipient updateRecipient findRecipient
Program	Deceased Waitlist / IPOS Kidney
Patient	Recipient
Section	Health / HLA Serum

Description:

The web service data structure **wsOrganPRA**, used in the CTR3 methods **findAllRecipientSerumTestResults** and **updatedRecipientHlaSerumTestResult**, has been updated to include the Willing to Cross Eligible value associated to the recipient, and associated to the Program/Organ of the cPRA and organ request. The new element is **wtcEligible**.

The ability to set and get the recipient's Pre-Emptive value has been included in web service methods. The new element of **preEmptive** has been added to the **webServiceRecipient** structure. The **preEmptive** value will support True, False and Null. The data element is included in the following CTR3 endpoint methods:

- addRecipientByNationalRecipientId
- updateRecipientByNationalRecipientId
- findRecipientByNationalRecipientId

The matching algorithm has been updated to exclude the **minimum age** acceptance criteria, which is defined by the recipient – on the recipient's organ request – and compared to the donor's age. This exclusion is only applicable to the **IPOS Kidney** program, and only applicable when the program is live.

Stories associated to this feature:

CTRII-9007 CTRII-9516 CTRII-9600 CTRII-9601

Release Version	Reference	Category
5.3	CTRII-8197	Feature
Feature Title		
Willing to Cross – Web Services to included Crossed Antibodies		

Interface	SOAP API
Web Service Endpoint	CTR3
Web Service Method	makeOfferAgainstHSPMatch acceptOffer updateOfferState makeHshOffer findDonorOffers findRecipientOffers
Program	Deceased Waitlist / IPOS Kidney
Patient	Recipient
Section	Offer Details

Description:

The web service data structure **wsOfferCore**, used in the CTR3 methods **makeOfferAgainstHSPMatch**, **acceptOffer**, **updateOfferState**, **makeHshOffer**, **findDonorOffers**, **findRecipientOffers** has been updated to the values associated to the **wtcCrossedAntigens**.

The values in **wtcCrossedAntigens** will be a delimited list of antibodies that were crossed to make the offer possible. This scenario happens when the recipient has *Willing to Cross* values and one or more of those values were crossed (ignored) so that the offer could be presented.

Stories associated to this feature:

CTRII-9679

Fixes – Deceased Wait List

Release Version	Reference	Category
5.3	CTR11-9583	Unexpected Error

Interface	Web Services / SOAP API
Web Service Endpoint	CTR3
Web Service Method	previewHsHeartMatch previewHSPMatchForDonor runHsHeartMatch runHSPMatchOnDonor
Program	Deceased Wait List
Patient	Recipient
Section	Organ Allocation

When attempting to execute a donor organ allocation, for Kidney or Heart, and the donor is missing required data, an **error.unknown** error would be returned in the web service response.

This unexpected error would happen when the donor is missing the ABO (blood group) value, the donor's declaration of death, and the HLA Typing is not complete.

The error response has been updated to include the specific details of the missing data.

Known Issues

There are no known issues in 5.3.8.1.

CTR v5.3 Future Changes in Release Candidate (Known/Anticipated)

There are no known updates remaining in CTR v5.3.8.1.

CTR v5.3 Reference Number List

The following is a list of CTR Reference IDs referred to in the changes listed above.

- CTRII-9438 - Single Offer Chain: Matching Algorithm Update
- CTRII-9439 - Single Offer Chain: Match Run Results Tab
- CTRII-9440 - Single Offer Chain: Chain Detail Tab
- CTRII-9441 - Single Offer Chain: Offer Management
- CTRII-9442 - Single Offer Chain: Impact to Offer details
- CTRII-9443 - Single Offer Chain: Impact to the Side-by-Side Report
- CTRII-9385 - KPD Offer: Patient Travelling Default View
- CTRII-9386 - KPD Offer: Recipient Task Assignment
- CTRII-9388 - KPD Offer: Offer Acceptance Criteria
- CTRII-9398 - KPD Offer: Offer Task Summary
- CTRII-9399 - KPD Offer: End-Offer Task Assignments
- CTRII-9400 - KPD Offer: Offer Management for Historical Offers
- CTRII-9401 - KPD Offer: Printing Offer Details
- CTRII-9403 - KPD Offer: Assigning Surgical Site based on Patient Travelling
- CTRII-9404 - KPD Offer: Comments Management
- CTRII-9424 - KPD Offer: Comments Management - Existing Comments - UI
- CTRII-9427 - KPD Offer: Comments Management - Display General Comments section - UI and Backend
- CTRII-9428 - KPD Offer: Comments Management - Update Comments - UI and Backend
- CTRII-9429 - KPD Offer: Comments Management - Add Comment - UI and Backend
- CTRII-9430 - KPD Offer: Comments Management - Delete Comment - UI and Backend
- CTRII-9592 - Update to ABOi Match Filter Criteria
- CTRII-9594 - Update Matching Algorithm - Support to Expanded Matching with ABOi
- CTRII-9007 - IPOS Kidney - Web Service support for Pre-Emptive
- CTRII-9516 - DWL Configuration Update: Handling ties between Preemptive and 0d on Dialysis (Tier 14)
- CTRII-9600 - CTR3 WS Endpoint: <wtcEligible> to be added to output of wsOrganPRA
- CTRII-9601 - IPOS Kidney Allocation - remove 'Min Age' as filter criteria

CTR Version 5.4 (June 2023)

The following is a list of the currently anticipated updates coming to CTR in the 5.4 Release and is accurate as of 2022-11-07.

- Updates to the KPD Matching Algorithm

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.