

# Canadian Transplant Registry

## Version Changes

2024-03-13– Release Notes 5.5 (5.5.9.1)

This document contains all version changes from 5.4.8.0 to 5.5.9.1.

Public (P)

# Table of contents

Canadian Transplant Registry	4
Overview	4
Recap of CTR 5.4 Changes	6
<b>Application Update – Deceased Waitlist / High Status Heart</b>	<b>7</b>
High Status Heart Notification Performance: DWL High-Status Heart Allocation	7
HS Heart Offer Proposed SMS messages sent out before Make HS Heart Offer request completed	8
<b>Application Update – Deceased Waitlist / cPRA Calculator</b>	<b>9</b>
updateRecipientHlaSerumTestResult(): Sometimes returns error "The cPRA calculation has failed."	9
<b>Application Update – Deceased Waitlist</b>	<b>10</b>
Allocation - Remove Kidney as the default selected organ	10
downloadOfferAttachment(): Permission check	11
<b>Fixes – Deceased Waitlist</b>	<b>12</b>
WS CTR3 - updateAttachment issue with swapped attachmentID and ownerID	12
WS CTR3 - updateAttachment and upLoadAttachment allows changes to Offlist Organ Request	13
WS CTR2 - uploadAttachment() issues - Recipient	14
WS CTR2 - deleteAttachment() for donor ASSESSMENT section does not work	15
updateDonor() - Lazy load exception bug CTR3 endpoint	16
updateRecipientByNationalRecipientID() - Lazy load exception bug CTR3 endpoint	17
updateDonor() - Lazy load exception bug CTR2 endpoint	18
updateRecipientByNationalRecipientID() - Lazy load exception bug CTR2 endpoint	19
WS CTR2 - uploadAttachment for ORGAN_REQUEST where ID <> CTR1_ID throws NPE	20
CTR3 Web Service - downloadOfferAttachment does not support Recipient Attachments	21
WS CTR3 - cannot upload multiple attachments for ORGAN_REQUEST where ID <> CTR1_ID	22
<b>Application Update – Kidney Paired Donation</b>	<b>23</b>
KPD End Offer Eligibility Report - Must Select Donor ID from Drop-Down	23
KPD Match Filter Criteria - Update label for ABO Sub-Type	24
KPD Match Run Eligible report - include Donor ABO sub-type	25
Update label for ABO Subtype Match Filter Criteria	26
<b>Fixes – Kidney Paired Donation</b>	<b>27</b>
Offer Details: Cannot add a comment to Domino End Offer of EXECUTED Match Run	27
Issue with resizing Print Dialog for Offer Details/Chain Details	28
Invalid filtering behavior for Offer State on KPD Offer list	29
CTR v5.5 (5.5.9.1) Known Issues	30

## CTR Release Notes

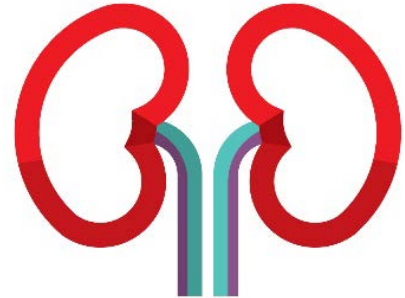
Version 5.5.9.1

CTR v5.5 Future Changes in Release Candidate	30
CTR v5.5 Reference Number List	30
CTR Version 5.6 (2024)	30
Customer Support	30

## 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



## 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 13 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 <sup>1</sup>	Reference <sup>2</sup>	Category <sup>3</sup>
5.2	CTRII-8752	Feature
<b>Feature Title <sup>4</sup></b>		
Enhancement to the Domino Chain - End Offer Recipient Assignment		

}	<b>Interface</b>	Web Browser Interface
	<b>Web Service Endpoint</b>	N/A
	<b>Web Service Method</b>	N/A
	<b>Program<sup>6</sup></b>	Kidney Paired Donation
	<b>Patient<sup>7</sup></b>	All
	<b>Section<sup>8</sup></b>	Match Run / Offer Management

**Description: <sup>9</sup>**

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 5.4 Changes

#### 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-A<sub>1</sub> and non-A<sub>1</sub>B 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.

#### IPOS Heart

- Eligibility Override
  - This feature allows an authorized user the ability to override a recipient's eligibility in the High-Status Heart program – specifically, removing a recipient from participating in the program.
  - The Heart Recusal option will not be applicable to any recipients with a Heart Organ Request, that is a Medical Status 4. If the recipient is recused and their Medical Status is a 4, or becomes a 4, the recusal is ignored from the High-Status Heart Eligibility evaluation.

#### **Notes:**

1. The date for the new IPOS Kidney functionality is currently under review and may be enabled independently from a release.

## CTR Version 5.5 Release Candidate

### Application Update – Deceased Waitlist / High Status Heart

Release Version	Reference	Category
5.5	CTR00-9817	Application Update
<b>Title</b>		
High Status Heart Notification Performance: DWL High-Status Heart Allocation		

<b>Interface</b>	Web Browser Interface and Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	makeHshOffer
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Donor
<b>Section</b>	Allocation - Heart

**Description:**

Performance improvement when offering to the first ranked recipient, and the allocation results include multiple Medical Status 4 recipients.

Release Version	Reference	Category
5.5	CTR11-9818	Application Update
<b>Title</b>		
HS Heart Offer Proposed SMS messages sent out before Make HS Heart Offer request completed		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	makeHshOffer
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Donor
<b>Section</b>	Allocation - Heart

**Description:**

This change is to address a potential performance issue when making an HS Heart offer, and to ensure offer notifications aren't sent prior to the offer being created.

The application was updated to send the *HS Heart Proposed Offer* SMS messages only once the top-ranked offer has been created. This allows the offer transaction to complete without having to wait for all SMS messages to be sent. The SMS messages will be sent immediately after the initial top-ranked offer is created.



## Application Update – Deceased Waitlist / cPRA Calculator

Release Version	Reference	Category
5.5	CTR11-9827	Application Update
<b>Title</b>		
updateRecipientHlaSerumTestResult(): Sometimes returns error "The cPRA calculation has failed."		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	updateRecipientHlaSerumTestResult
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	HLA Serum

### Description:

Rather than immediately return an error when the cPRA Calculation is unable to process, the application will retry multiple times with an short interval between each attempt.

## Application Update – Deceased Waitlist

Release Version	Reference	Category
5.5	CTR11-9846	Application Update
<b>Title</b>		
Allocation - Remove Kidney as the default selected organ		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Donor
<b>Section</b>	Allocation

### Description:

Rather than default to the Kidney allocation tab, there is no organ pre-selected. This removes the need to wait for results to load before being able to select an organ.

Release Version	Reference	Category
5.5	CTR11-9923	Application Update
<b>Title</b>		
downloadOfferAttachment(): Permission check		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	downloadAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	All
<b>Section</b>	Organ Request

**Description:**

When calling the downloadAttachment method, which requires an Offer ID and an Attachment ID, the application will first ensure the requesting user has the necessary permission to view the Offer. If the user does not have the necessary permission, the following will be returned.

Error ID: offer.error.UserHasNoOfferPerms

Error Message: User [USERNAME] does not have access to the offer(s) [OFFER\_ID]

**Fixes – Deceased Waitlist**

<b>Release Version</b>	<b>Reference</b>	<b>Category</b>
5.5	CTR11-9803	Unexpected Result
<b>Title</b>		
WS CTR3 - updateAttachment issue with swapped attachmentID and ownerID		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	updateAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Improved exception handling when attachmentID and ownerID are mistakenly swapped.

Release Version	Reference	Category
5.5	CTR11-9804	Unexpected Result
<b>Title</b>		
WS CTR3 - updateAttachment and upLoadAttacment allows changes to Offlist Organ Request		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	uploadAttachment updateAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Adding attachments to organ request that are Off List is not permitted. Updated the web service requests to support the requirement.

Both methods will return an error when attempting to add an attachment to an Off List organ request.

Release Version	Reference	Category
5.5	CTR11-9805	Unexpected Result
<b>Title</b>		
WS CTR2 - uploadAttachment() issues - Recipient		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR2
<b>Web Service Method</b>	uploadAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Uploading an attachment to the ORGAN\_REQUESTS section was failing. This error has been corrected.

<b>Release Version</b>	<b>Reference</b>	<b>Category</b>
5.5	CTR11-9806	Unexpected Result
<b>Title</b>		
WS CTR2 - deleteAttachment() for donor ASSESSMENT section does not work		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR2
<b>Web Service Method</b>	deleteAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Donor
<b>Section</b>	Assessment

**Description:**

Unable to delete an attachment in the Donor's Assessment section. This error has been corrected.

Release Version	Reference	Category
5.5	CTR11-9842	Unexpected Result
<b>Title</b>		
updateDonor() - Lazy load exception bug CTR3 endpoint		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	updateDonor
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Donor
<b>Section</b>	Donor Death

**Description:**

Corrected an unexpected error that occurred when updating the donor death details, and the donor record had comments and/or attachments.



Release Version	Reference	Category
5.5	CTR11-9843	Unexpected Result
<b>Title</b>		
updateRecipientByNationalRecipientID() - Lazy load exception bug CTR3 endpoint		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	updateRecipientByNationalRecipientID
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Corrected an unexpected error that occurred when updating the recipient organ request details, and the recipient record had comments and/or attachments.

<b>Release Version</b>	<b>Reference</b>	<b>Category</b>
5.5	CTR11-9863	Unexpected Result
<b>Title</b>		
updateDonor() - Lazy load exception bug CTR2 endpoint		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR2
<b>Web Service Method</b>	updateDonor
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Donor
<b>Section</b>	Donor Death

**Description:**

Corrected an unexpected error that occurred when updating the donor death details, and the donor record had comments and/or attachments.

Release Version	Reference	Category
5.5	CTR11-9864	Unexpected Result
<b>Title</b>		
updateRecipientByNationalRecipientID() - Lazy load exception bug CTR2 endpoint		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR2
<b>Web Service Method</b>	updateRecipientByNationalRecipientID
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Corrected an unexpected error that occurred when updating the recipient organ request details, and the recipient record had comments and/or attachments.

Release Version	Reference	Category
5.5	CTR11-9871	Unexpected Result
<b>Title</b>		
WS CTR2 - uploadAttachment for ORGAN_REQUEST where ID <> CTR1_ID throws NPE		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR2
<b>Web Service Method</b>	uploadAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Corrected a back-end error that could happen with historical records that have an attachment on the recipient organ request - an unexpected null pointer exception was returned.

Release Version	Reference	Category
5.5	CTR11-9872	Unexpected Result
<b>Title</b>		
CTR3 Web Service - downloadOfferAttachment does not support Recipient Attachments		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	downloadOfferAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	All
<b>Section</b>	Offers

**Description:**

The process for validating the Donor/Recipient ID would always incorrectly return error details that identifies the invalid ID as a Recipient ID -- the ID prefixed with "CTR".

The validation has been updated to match the behaviour of the CTR2 version of the method, where the error includes the Offer ID and the Attachment ID, rather than the Donor ID.

Correcting the behaviour of the validation resulted in a change to the error key. The key "attachment.error.patient.attachmentIDnotexist" has been replaced with "attachment.error.offer.attachmentIDnotexist".

An example of the detailed error message is: "Attachment with ID 79424 does not exist for patients involved in offer 35589".

This validation error occurs when the Attachment ID is not associated to the Offer ID, for either the donor or recipient, or the user does not have permission to the Offer or to the Attachment.

Release Version	Reference	Category
5.5	CTR11-9878	Unexpected Result
<b>Title</b>		
WS CTR3 - cannot upload multiple attachments for ORGAN_REQUEST where ID <> CTR1_ID		

<b>Interface</b>	Web Services / SOAP API
<b>Web Service Endpoint</b>	CTR3
<b>Web Service Method</b>	uploadAttachment
<b>Program</b>	Deceased Waitlist
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Corrected an unexpected error that would prevent uploading multiple attachments to a single organ request record.

## Application Update – Kidney Paired Donation

Release Version	Reference	Category
5.5	CTR11-9512	Application Update
<b>Title</b>		
KPD End Offer Eligibility Report - Must Select Donor ID from Drop-Down		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	N/A
<b>Section</b>	KPD End Offer Eligibility Report

### Description:

Improved usability with the Donor ID drop-down selection. This field now supports type-ahead and/or drop-down selection from a list of donor identifiers.

Release Version	Reference	Category
5.5	CTR11-9861	Application Update
<b>Title</b>		
KPD Match Filter Criteria - Update label for ABO Sub-Type		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Updated label and hover text for the ABOi match filter criteria.

When the recipient's blood group is O, the hover text is changed from "ABOi matching to Blood Group O, please use KPD ABOi Lite protocol" to "ABOi matching to Blood Group O, please use KPDABOi Lite guiding principles".

When the recipient's blood group is B, the hover text is changed from "ABOi matching to Blood Group B, please use KPD ABOi Lite protocol" to "ABOi matching to Blood Group B, please use KPD ABOi Lite guiding principles".



Release Version	Reference	Category
5.5	CTR11-9862	Application Update
<b>Title</b>		
KPD Match Run Eligible report - include Donor ABO sub-type		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	All
<b>Section</b>	Match Run Eligible Report

**Description:**

Updated with KPD Match Run Eligible Report. Added the following columns of data:

- Donor ABO
- Donor ABO Subtype
- Recipient ABO

Release Version	Reference	Category
5.5	CTR11-9901	Application Update
<b>Title</b>		
Update label for ABO Subtype Match Filter Criteria		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	Recipient
<b>Section</b>	Organ Request

**Description:**

Updated label text for the ABOi match filter criteria.

When the recipient's blood group is O, the label is changed from "Willing to Match to a non-A1 Donor" to "Eligible and Willing to Match to a Blood Group A non-A1 Donor".

When the recipient's blood group is B, the label is changed from "Willing to Match to a non-A1 / non-A1B Donor" to "Eligible and Willing to Match to a Blood Group A non-A1, or Blood Group AB non-A1B Donor".

## Fixes – Kidney Paired Donation

Release Version	Reference	Category
5.5	CTR11-9552	Unexpected Result
<b>Title</b>		
Offer Details: Cannot add a comment to Domino End Offer of EXECUTED Match Run		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	N/A
<b>Section</b>	Domino End Offer / Administrator Comments

### Description:

The application was not allowing the entry of KPD Administrator Comments on a Domino offer that was in an executed match run. This unexpected behaviour has been corrected, allowing the entry of comments.

Release Version	Reference	Category
5.5	CTR11-9612	Unexpected Result
<b>Title</b>		
Issue with resizing Print Dialog for Offer Details/Chain Details		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	N/A
<b>Section</b>	Offer Details

**Description:**

When attempting to print the offer details, resizing the screen would result in unexpected data (from the report) being added to the screen. Resizing of the screen works as expected.

Release Version	Reference	Category
5.5	CTR11-9833	Unexpected Result
<b>Title</b>		
Invalid filtering behavior for Offer State on KPD Offer list		

<b>Interface</b>	Web Browser Interface
<b>Web Service Endpoint</b>	N/A
<b>Web Service Method</b>	N/A
<b>Program</b>	Kidney Paired Donation
<b>Patient</b>	All
<b>Section</b>	KPD Offer List

**Description:**

Corrected an unexpected behaviour with the filtering of Offer State.

The report was incorrectly handling filter selections on the Offer State, specifically when a recipient has offers that are, both, Accepted and Transplanted.

## **CTR v5.5 (5.5.9.1) Known Issues**

There are no known issues in 5.5.9.1.

## **CTR v5.5 Future Changes in Release Candidate**

There are no known updates remaining in CTR v5.5.9.1.

## **CTR v5.5 Reference Number List**

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

- Not Applicable for this release.

## **CTR Version 5.6 (2024)**

The scope of CTR 5.6 is currently under consideration.

## **Customer Support**

For assistance with the information contained in this document, please contact our CTR Customer Solutions Team via email at [transplantregistry@blood.ca](mailto: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.