Program	**Interprovincial Organ Sharing: HSP Kidney and KPD**
Title	**CTR.80.002 Willing to Cross Antigens**

Version (Date)	V7.0 2024-05-23
Policy Sponsor	Acting Director OTDT, Peggy John
Committee Review	Kidney Transplant Advisory Committee, National HLA Advisory Committee, Donation and Transplantation Administrators Advisory Committee, Living Donation Advisory Committee
Committee Endorsement	Kidney Transplant Advisory Committee, National HLA Advisory Committee, Donation and Transplantation Administrators Advisory Committee, Living Donation Advisory Committee
Provincial/Territorial Sign-Off	Complete
Effective Date	2024-12-04

Willing to Cross Antigens in HIGHLY SENSITIZED Patients: A CLINICAL GUIDELINE

Purpose

The Kidney Paired Donation (KPD) and Highly Sensitized Patient (HSP) programs identify transplant opportunities for patients who are waiting for a kidney transplant. However, despite these registries, a number of transplant candidates are unable to find a compatible donor. This is usually due to a very high cPRA 99-100%. This document describes, for Transplant Programs who wish to seek additional opportunities for these patients, the protocols and recommendations to use in identifying antigens that can be crossed.

Policy

1. Recipient Suitability for Willing to Cross Consideration

1.1 Consideration for 'Willing to Cross' must align with local clinical policy and practices.

1.2 The transplant program is responsible for identifying potential candidates, for 'Willing to Cross' from their local transplant waitlist.

1.3 Patients to be considered for 'Willing to Cross' could be enrolled in either the KPD or HSP programs, or both.

1.4 Initial recommendation for 'Willing to Cross' is to start with the ≥99.0% cPRA patients enrolled in the KPD and HSP programs.

2. Procedures

2.1 HLA laboratory must record 'Willing to Cross' antigens.

2.2 For each 'Willing to Cross' antibody specificity, the HLA Laboratory must indicate all reasons for the WTC designation.

3. Willing to Cross for HSP program

3.1 HSP program eligibility is based on the adjusted cPRA ≥94.50% or unadjusted cPRA ≥94.50%

3.2 The adjusted cPRA is the cPRA after 'Willing to Cross' antigens are removed and is relevant for the current allocation, if the offer requires 'Willing to Cross' to be used.

3.3 The unadjusted cPRA is the cPRA without any 'Willing to Cross' antigens being removed.

3.4 The adjusted cPRA must be ≥ 94.50% in order for the transplant candidate to remain eligible for the HSP Program.

3.5 If 'Willing to Cross' is enabled for the HSP program, then the blood group, HLA and other optional matching filters must remain the same for transplant candidates with adjusted and unadjusted cPRA. Refer to CTR.50.003 HSP – Matching and Ranking for the detailed HSP program matching rules.

3.6 If 'Willing to Cross' is enabled for the HSP program, then a transplant candidate with an unadjusted cPRA must rank higher than a transplant candidate with an adjusted cPRA of the same value. Refer to CTR.50.003 HSP – Matching and Ranking for the detailed HSP program ranking rules.

3.7 In the adjusted cPRA tier, a higher cPRA must be ranked above a lower cPRA

3.8 In the unadjusted cPRA tier, a higher cPRA must be ranked above a lower cPRA

3.9 Please refer to the Willing to Cross Guidelines for up-to-date recommendations.

4 Willing to Cross for KPD program

4.1 For the KPD program, if the adjusted cPRA < 94.5% then the transplant candidate does not receive the "Highly Sensitized (cPRA ≥ 94.5%)" match points.

5 Post-Transplant Outcome Data

5.1 The 'Willing to Cross' data will be reviewed bi-annually, at a minimum, by the National HLA Advisory Committee (NHLAAC) and Kidney Transplant Advisory Committee (KTAC).

5.2 The post-transplant outcome information is required at the following time points: 1 week, 2 weeks, 1 month, 3 months, 6 months and 12 months.

5.3 Information required for HSP and KPD recipient's post-transplant outcome includes:

a. DSA (de novo and pre-existing) and MFI testing at:

i. Day of transplantation

ii. Week 1 and 2 following transplant

iii. Serum samples should be collected at the following intervals to be stored for further testing as needed

- Month 1, 3, 6, 12 following transplant
- Yearly thereafter

iv. at time of indication biopsy

v. Clinical suspicion of rejection

vi. at time of AMR diagnosis

b. Virtual crossmatch absolute value

c. Protocol biopsy at 3 months; if done within 8 weeks no need to repeat at 3 months

d. Indication biopsy at any time point for the following reasons:

i. Development of new DSA

Ii. Recurrence of historical DSA that was not present at time of transplant

Iii. Significant increase in DSA; as per consultation with HLA lab

Iv. If estimated Glomerular Filtration Rate </= 20ml/min at 6-8 weeks post-transplant and no biopsy done in prior 2-4 weeks; in absence of other predictors of poor graft function

v. Delayed graft function as per centre standard, ideally within the first 7-10 days post-transplant

Vi. Any other clinically indication as per treating physician

e. Polyoma (BK)viremia in first 12 months events that required a change in clinical immunosuppression management

f. Biopsy proven AMR

g. Biopsy proven T-cell mediated rejection

h. Serum creatinine

i. week 1, 2, 3

Ii. month 1, 3, 6, 12

Iii. yearly

Iv. at time of AMR diagnosis and 1-month post

i. Delayed Graft Function (defined as need for 2+ dialysis treatments within the first 7-10 days; excluding a single session for hyperkalemia and/or fluid overload)

j. Graft failure and cause, if applicable

k. Patient death and cause, if applicable

l. Inform Canadian Blood Services via normal business process if kidney is transplanted to unintended backup recipient

5.4 The Kidney Transplant Advisory Committee can work with clinical transplant programs to ensure that this outcome data is entered in the survey sent by Canadian Transplant Registry and Interprovincial Organ Sharing program.

5.5 NHLAAC and KTAC will review 'Willing to Cross' outcome data over time and discuss challenging cases as they occur.

6 Review

6.1 This policy may be reviewed on recommendation by the NHLAAC or KTAC.

Version History		
Version	**Date**	**Comments /Changes**
V7.0	2024-05-23	1. Revised Outcome data monitoring based on review at NHLAAC Meeting 2024-05-02 and WTC Guidelines document
V6.0	2023-02-08	Revised based on review at NHLAAC Face to Face Meeting 2023-02-08 / 09
V5.0	2019-09-19	Revised based on review at NHLAAC teleconference 2019-09-19
V4.0	2019-03-22	Revised based on review at KTAC teleconference 2019-03-22
V3.0	2019-01-17	Revised based on review at NHLAAC teleconference 2019-01-17
V2.0	2018-11-27	Revised based on comments from chair.
v1.0	2017-05-09	Original version. Reviewed at NHLAAC and KTAC F2F meeting. Revised based on comments from chair 2018-09-24

References
HLA Disc Doc 2016-001 – Willing to Cross Definitions