

ABO cPRA Update

Purpose of This Update

The calculated panel reactive antibody (cPRA) predicts the likelihood of finding a compatible donor for kidney transplant candidates by determining the frequency of Human Leukocyte Antigens (HLA), that a transplant candidate has antibodies against in a given donor population. National kidney sharing policies assign priority in allocation lists for transplant candidates with increasing cPRA values.

The current Canadian cPRA calculator does not consider the patient ABO when calculating a transplant candidate's cPRA, leading to inequity in access. Modelling studies suggest that incorporating an ABO-adjusted calculation into cPRA could improve equity in access to transplantation particularly for blood group B and O candidates.

Overview of Changes

- The ABO adjustment will improve transplant opportunities for a number of current HSP and non-HSP transplant candidates.
- Including an ABO adjustment calculation to determine a candidate's cPRA more accurately identifies the hardest-to-match transplant candidates and increases transplant opportunities.

Why are we making this change now?

Donation and transplant practices evolve as scientific evidence advances, with the goal of optimizing immunologic compatibility and creating good matching opportunities for transplant candidates. Recent reviews of calculating cPRA for allocation practices have demonstrated the importance of accounting for ABO to provide equitable access to transplantation, particularly for blood group B and O candidates. This has led to an update of the cPRA calculation to reflect this evidence.

Key Benefits

- For a number of transplant candidates with a cPRA < 95% not currently eligible for national kidney sharing programs, and are blood group B or O, adjusting for ABO will improve access to transplant opportunities by gaining access to national kidney sharing programs for deceased donor kidneys.
- ABO-adjusted cPRA calculation improves equity of kidney allocation by identifying and prioritizing the truly most difficult-to-match candidates ($\geq 98.5\%$) to receive offers first. The ABO adjustment is expected to increase transplant opportunities for a number of blood group B and O candidates by increasing their rank to the top tier in an allocation list.

How will this impact your work

- Until the KPD program uses the ABO adjusted cPRA calculation (expected June 2026 match cycle), HSP transplant candidates could have a different cPRA in the HSP program versus KPD program
- For local provincial waitlists a transplant candidate may have a different cPRA in their local allocation system compared with the CTR
- A transplant candidate's cPRA is not expected to decrease with ABO-adjustment because this new calculation accounts for immune incompatibility due to both HLA and ABO
- Transplant Centres should have received a list of current non-HSP transplant candidates that have become HSP eligible (with the ABO adjustment) and are not currently in the CTR, from their local HLA laboratories. These candidates should be consented for participation in the program