2025 Histocompatibility HLA Table Update

Histocompatibility Committee

Purpose of Proposal

- Additional higher-resolution HLA typing options will allow for more precise immunologic screening
- Aligns HLA tables with International ImMunoGeneTics (IMGT) database
  - IMGT serves as a comprehensive resource for histocompatibility
- Ensures that the unacceptable antigen screening for candidates will appropriately exclude incompatible donors based on current p-group equivalences and epitopes
  - P-groups, or protein groups, join HLA alleles with the same protein sequence

Proposal

- Adding necessary p-values to *Table 4-16: Epitope based Unacceptable Antigen Assignment for DPB1*
- Add C*04:09L *to Table 4-7: HLA C Unacceptable Antigen Equivalences*
  - Aligns with allele status change from null to low-expression
- Does not change requirements for candidate, donor, or recipient HLA typing
- Updates the equivalency tables via E.8 Expedited Actions of the OPTN Management and Membership Policies pathway

Rationale

- In January 2025, the IMGT database updated allele C*04:09 from null (C*04:09N) to low expression (C*04:09L). C*04:09 was one of the most commonly listed null alleles.
  - To align the allele status change with international standards
- The *2023 HLA Table Update* added p-groups to most tables. Based on feedback from the histocompatibility community, it was found that the addition of these p-groups to *Table 4-16: Epitope based Unacceptable Antigen Assignment for DPB1* would allow for more detailed and accurate typing.

Member Actions

- Histocompatibility labs may need to update their Application Programming Interfaces (APIs) to incorporate additional unacceptable antigen options
- Histocompatibility labs and organ procurement organizations may need to evaluate their transplant agreements

What do you think?

- Does the proposed crosswalk cover the recognized DP epitopes within the DPB1 p-groups in the HLA table?
- Are there recommendations for changes to instructions in unacceptable antigen listing or donor HLA typing that would improve the efficacy and equity of allocation in the OPTN computer system?
- Are there additional HLA table updates that can be made to increase efficiency and safety of allocation for patients?

FAQs

- This proposal will not have any impact on Calculated Panel Reactive Antibody (CPRA)
  - The CPRA algorithm is used to calculate patient sensitization
- C*04:09L can currently be typed as C*04

Provide Feedback

Submit public comments on the OPTN website:

- [August 8-Oct 7th, 2025]
- **optn.transplant.hrsa.gov**