OPTN Histocompatibility Committee
HLA Equivalency Tables Review Subcommittee
Meeting Summary
May 4, 2021
Conference Call

Peter Lalli, Ph.D., D(ABHI), Chair
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Introduction

The HLA Equivalency Tables Review Subcommittee met via Citrix GoToMeeting teleconference on 05/04/2021 to discuss the following agenda items:

1. Discussion: Broad antigen equivalents
2. Methodology: DPB1 and DPA1
3. When to Add Common Alleles
4. Next Steps

The following is a summary of the Subcommittee's discussions.

1. Discussion: Broad Antigen Equivalents

Committee members discussed the following broad antigen unacceptable antigen equivalences and whether they should screen off all donors with only antigen-level typing if the recipient has a specific allelic antibody:

- B*40:01 → 40:01, 60
- B*40:05 → 40:05, 50
- B*50:02 → 50:02, 45
- DRB1*03:01 → 03:01, 17
- DRB1*03:02 → 03:02, 18
- DRB1*03:03 → 03:03, 18
- DQB1*03:01 → 03:01, 7
- DQB1*03:02 → 03:02, 8
- DQB1*03:03 → 03:03, 9
- DQB1*03:19 → 03:19, 7
- DQB1*7 → 7, 3, 03:01, 03:19
- DQB1*8 → 8, 3, 03:02
- DQB1*9 → 9, 3, 03:03

Summary of discussion:

Members discussed the pros and cons of broad antigen equivalents for screening potential donors. If laboratories aren't diligent and selecting antigen-level equivalences for candidates with broader reactivity. However, they also discussed that if a candidate truly has an allelic unacceptable, these broader equivalents would be inappropriately screening off potential donors. In addition, these equivalents inflate a candidate's CPRA, in spite of the fact that the candidate may not be sensitized to all of the HLA within that broad equivalent. Programs are still able to list the serologic equivalents as

unacceptable antigens, even if they're removed for these equivalences. The subcommittee agreed to remove these equivalents and allow programs to use their clinical judgment and have the ability to list true allele-specific antibodies and manually screen potentially incompatible donors who may only have serologic typing.

2. Methodology: DPB1 and DPA1

DPB1 Methodology:

The Committee Vice Chair presented on how to transform HLA*DPB1 sequences, provided by the Anthony Nolan Institute on behalf of IMGT/HLA, and to determine p-groups and epitopes. Members expressed no concerns about the process, and agreed on updating the current list of equivalences, epitopes, and reportable typing using the most recent version, 3.44.0.

DPA1 Methodology:

Committee members expressed no concerns about the proposed DPA1 tables. They agreed with the requirement for DPA1 typing to be performed on all deceased donors, and agreed that this typing is already frequently occurring. In addition, there are low level serologic equivalents able to be reported.

3. When to Add Common Alleles

UNOS staff liaison requested the subcommittee to think on when to include all common alleles, and proposed the following as potential triggers:

- When there is API upload for candidate and donor HLA
- When the majority of labs have higher resolution typing
- Based on review of potential resolution/reporting errors

4. Next Steps

UNOS staff liaison will send out the process documentation and a draft of the proposed changes for subcommittee members to review prior to presenting to the full committee.

Upcoming Meetings

- TBD

Attendance

- **Subcommittee Members**
  - Cathi Murphey
  - Jerry Morris
  - Jennifer Schiller
  - John Lunz
  - Pete Lalli
  - Valia Bravo-Egana
- **HRSA Representatives**
  - Marilyn Levi
- **UNOS Staff**
  - Abby Fox
  - Courtney Jett
  - Kelsi Lindblad
  - Leah Slife
  - Nicole Benjamin