OPTN Histocompatibility Committee
Meeting Summary
March 14, 2023
Conference Call

John Lunz, Ph.D., F(ACHI), Chair

Gerald Morris, MD, Ph.D., Vice-chair

Introduction

The Histocompatibility Committee ("Committee") met via Citrix GoToMeeting teleconference on 03/14/2023 to discuss the following agenda items:

1. Committee Public Comment Responses
2. Update HLA Tables
3. Data Request
4. CPRA Feedback

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

1. Committee Public Comment Responses

The Committee reviewed feedback from public comment on their proposal "Require Confirmatory HLA Typing for Deceased Donors". They also reviewed the responses to be submitted as comment to other proposals heard by the Committee.

Summary of discussion:

The Chair thanked members for presenting the proposal and noted that current community feedback suggested that the proposal would need to be reinvestigated after the conclusion of public comment.

There was no additional feedback from the Committee on the public comment responses.

Next steps:

Staff will provide a summary of public comment sentiment on the Committee's proposal and submit the Committee's responses to other proposals.

2. Update HLA Tables

The Chair led a discussion on proposed updates to HLA tables.

Data summary;

The discussion centered around three questions:

- Adding additional allele-level specificities?
- Adding additional p-groups for HLA reporting and unacceptable antigen screening?
- Updating DPB1 tables to the most recent release of IMGT/HLA?

Summary of discussion:

The Chair asked if anyone was using nanopore sequencing to type donors. A member replied that they were not because they did not feel it was ready to be used in place of conventional methods. A second member added that they also were not but knew of other lab directors who had started using it. A third member noted that they were using it in place of real-time PCR when they needed an HLA typing in a short amount of time.

The Vice-Chair asked if there was value in entering both the high-resolution typing and the serologic typing, or whether the high-resolution typing was sufficient. The Chair responded that there could be benefit to having the alleles input as well as the high-resolution typing; however, there would need to be a function to translate. They also wondered whether there would be a robust enough translation system that could translate less-common alleles into their serologic equivalents.

The Vice-Chair wondered if there was a data monitoring plan for the usage of allele-specific antibodies in the OPTN Computer System now that they were used for the CPRA calculation. The Chair noted that it was in the monitoring plan for that project. A member added that allele-specific antibodies were primarily created for highly sensitized patients, so their clinical use was potentially somewhat relegated. They suggested that using alleles that are more common, and, by extension, more clinically relevant was the better approach. The Chair tentatively agreed, pointing out that it would be most efficient to only include the common and well documented alleles, but felt that there should still be a method for programs to report rare alleles. They suggested that it could be as simple as reporting the serologic equivalent or reporting it as a P-group, but that information should not be lost. A member wondered if there could be a manual entry box for rare typing results. Staff asked if that would potentially be problematic because the manual entry would be entirely informational and would not screen donors.

The Chair inquired whether manual entry of rare alleles could be a problem for ABDR matching. They felt that the two obvious results could be that the algorithm would be thrown off or that it would not recognize the input and not provide priority points. Staff replied that there could be an issue with ABDR matching in that case, especially if the system tries to find the serologic equivalent of a rare allele.

The Chair supported adding additional p-groups for HLA typing and unacceptable antigen screening, which was further supported by the vice-Chair and two members. Another member noted that vendors would need to be aware of this change as some software cannot add P groups as unacceptable. The Chair replied that adding those groups as unacceptable may be unnecessary, as unacceptable antigens could still be at the allele level, whereas the overall donor typing would be potentially based off the P-group.

Staff asked if it would be helpful for the OPTN Computer System to have a differentiation between P-groups and non-P groups. The vice-Chair felt it would not be worth it to separate them out.

A member asked for clarification if the project was focusing on allelic entry for the DPB1 loci or all loci. The Chair answered that this would be allele-level typing for all loci. The member expressed concern about having each lab perform allele level typing because they felt there was a lot of room for interpretation; this could result in different typing results reported at different labs. The Chair clarified that there would still be established equivalency tables.

Staff inquired whether, if the Committee decided to move forward with p-groups for all loci, there would be benefit to maintain the serologic equivalency tables. The vice-Chair supported maintaining them in the transition period.

Next steps:

Staff will present possible design opportunities to the Committee.

3. Data Request

Staff presented on the data request received for the Donor and Recipient Histocompatibility Forms.

Data summary:

The data request analyzed kidney transplants performed between March 15, 2021, and December 31, 2022. It measured:

- Count and percent of transplants
    - Where a physical crossmatch was performed
    - Where the crossmatch was performed prospectively
- Distribution of time from date of most recent crossmatch serum to date of transplant

Staff clarified that the start date was indicated by the implementation of acuity circles for kidney and pancreas

Summary of discussion:

A member felt there could be a wide spread of practice due to programs' actions at the start of the cohort and at the end of the cohort. They suggested subdividing the cohort into three chronological segments.

The Chair asked if there could be a comparison population of crossmatching practices prior to March 15, 2021. They felt that this would indicate if programs' practices changed significantly because of acuity circles' implementation.

The representative from HRSA suggested stratifying programs by size and offer volume to understand if larger programs were earlier adopters of new practices. A member supported this approach as well.

The vice-Chair also suggested stratifying programs by different practices and trying to determine what, if any, similarities exist between the programs.

A member asked for clarification on why the Committee was submitting this data request. The Chair replied that this data request would help inform the Donor and Recipient Histocompatibility Subcommittee on current crossmatching practices. By determining whether the crossmatch was prospective of retrospective, the prevalence of virtual crossmatching can be ascertained.

The representative from HRSA noted that, if virtual crossmatching practices were being determined, it may prove beneficial to break down crossmatching practices across different CPRA groups. A member tentatively suggested viewing 100%, 99%, 98%, 80-97% range, 20-79% range, and >20% range.

Next steps:

4. CPRA Feedback

The Chair introduced a potential project which addresses the presentation of CPRA on a match run.

Data summary:

Concerns were raised that blank spaces on the match run may be misinterpreted. Candidates will have a blank space for their CPRA value if they have no unacceptable antigens. This could cause confusion if a program assumes it to be 0.

Summary of discussion:

The Chair clarified that some values can get rounded to 0, whereas a blank space is because of no listed unacceptable antigens.

A member suggested having a non-numeric value populate the field instead to prevent confusion. They proposed adding “NT” for “Not Tested” and investigating why candidates are not being tested to potentially include more specific response options. Staff noted it was not a policy requirement to list candidates with unacceptable antigens. The Chair added that it was unusual for a candidate not to be listed with unacceptable antigens in their experience. A member wondered if the lack of unacceptable antigens could be caused by a delay in results returning to the transplant program.

Next steps:

Staff will incorporate the Committee’s feedback into a potential solution to be presented at a later date.

Upcoming Meeting

- April 11, 2023 (in-person)

Attendance

- **Committee Members**
  - John Lunz
  - Gerald Morris
  - Amber Carriker
  - Andres Jamarillo
  - Debra Vicars
  - Hua Zhu
  - Hemant Parekh
  - Karen Wooten
  - Kelley Hitchman
  - Lenore Hicks
  - Manish Gandhi
  - Manu Varma
  - Peter Lalli
  - Qingyong Xu
  - Reut Hod Dvorai
  - Rajalingam Raja
- **HRSA Representatives**
  - Jim Bowman
- **SRTR Staff**
  - Katherine Audette
- **UNOS Staff**
  - Courtney Jett
  - Isaac Hager
  - Krissy Laurie
  - Susan Tlusty
  - Thomas Dolan