

**OPTN/UNOS Histocompatibility Committee
Meeting Minutes
September 26, 2017
Conference Call**

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Introduction

The Histocompatibility Committee (the Committee) met via Citrix GoToTraining teleconference on 09/26/2017 to discuss the following agenda items:

1. Donor Count CPRA Data Request

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

1. Donor Count CPRA Data Request

In order to bring a project idea related to updating the CPRA calculation, including adding HLA-DQA1 and DPB1 to the calculation, the Committee requested data detailing the prevalence of DQA1 and DPB1 in UNetSM and detailed CPRA data.

Data summary:

UNOS Research staff provided the Committee with the results of a data request that came out of the March 21, 2017, in person meeting in Chicago, Illinois. The Committee requested frequency data for registrations with HLA-DQA1 and DPB1 unacceptable antigens, as well as CPRA values based on a new proposed model using donor count for the calculation.

The following is a sample of the findings:

- The total number of kidney and pancreas/kidney-pancreas registrations with any DQA1/DPB1 unacceptable antigens reported was 8,569 (8.0%). This number is up slightly from the previous data request presented at the March 21, 2017 meeting (7.4%).
- For all kidney, pancreas and kidney-pancreas registrations on the waiting list with unacceptable DQA1 and/or DPB1 antigens reported and CPRA value less than 100%, "donor count" CPRA was computed two ways:
 - Based on all unacceptable antigens reported excluding DQA1 and DPB1;
 - Based on all unacceptable antigens reported (i.e. including DQA1 and DPB1)
- "Donor count" CPRA was computed as the percentage of deceased kidney donors recovered January 21, 2016 – May 31, 2017 (N=12,572) that have one or more HLA antigens indicated as unacceptable on the waiting list for a registration. Donor HLA data is based on what was reported in DonorNet[®] for allocation. If matches were run using different HLA, the latest reported donor HLA was used. The latest approved version of unacceptable antigen equivalences was used for the analysis. For DPB1, unacceptable antigen equivalences out for public comment as of July 31, 2017 were used since they are not part of the most recently approved version of the equivalency tables.
- Out of 8,569 kidney, pancreas and kidney-pancreas registrations on the waiting list with unacceptable DQA1/DPB1 antigens reported, 2,525 (29.5%) had CPRA value of 100%. The remaining 6,044 (70.5%) registrations had CPRA below 100%.
- When comparing CPRA and 'donor count' CPRA without DQA1/DPB1 for 6,044 kidney and pancreas/kidney-pancreas registrations with DQA1/DPB1 unacceptable antigens

reported and CPRA less than 100%, 2,861 (47.3%) of them had the same CPRA values and for 2,318 (38.4%) 'donor count' CPRA was within 1-2 percentage points of CPRA. For remaining 865 (14.3%) registrations, 'donor count' CPRA was more than 2 percentage points away from CPRA. It must be noted that 'donor count' CPRA was computed based on the most recent cohort of donors and unacceptable antigen equivalences.

- When comparing CPRA and 'donor count' CPRA with DQA1/DPB1 for 6,044 kidney and pancreas/kidney-pancreas registrations with DQA1/DPB1 unacceptable antigens reported and CPRA less than 100%, CPRA stayed the same for 861 (14.2%) of registrations. It decreased for 743 (12.3%) with the most common decrease being 1 or 2 percentage points and maximum decrease of -13. CPRA increased for 4,440 (73.5%) of registrations with the maximum increase of 100 percentage points.
- With 'donor count' CPRA with DQA1/DPB1 compared to CPRA:
 - CPRA would increase from 0% to greater than 0% for 950 registrations
 - CPRA would increase from <20% to greater or equal to 20% for 586 registrations
 - CPRA would increase from <80% to greater or equal to 80% for 291 registrations
 - CPRA would increase from <98% to 98% for 123 registrations
 - CPRA would increase from <99% to 99% for 262 registrations
 - CPRA would increase from <100% to 100% for 353 registrations
- One analysis compared 'donor count' CPRA without DQA1/DPB1 and 'donor count' CPRA with DQA1/DPB1 for 6,044 kidney and pancreas/kidney-pancreas registrations with DQA1/DPB1 unacceptable antigens reported and CPRA less than 100%. These differences isolate the effect of adding DQA1/DBP1 into CPRA calculation from the effect of other changes to CPRA calculation (different approach, updated cohort of donors, updated equivalency tables). With addition of DQA1/DPB1 into calculation, 'donor count' CPRA stayed the same for 1,369 (22.7%) and increased for the remaining 4,675 (77.3%) registrations. Maximum increase was 100 percentage points.

Summary of discussion:

The Committee generally felt this data supported their preliminary thoughts about both adding HLA-DQA1 and DPB1 to the CPRA calculation and changing the way CPRA is calculated. The Committee also requested analysis on the effects of adding HLA-DQA1 and DPB1 and donor count CPRA increasing to 98%, 99% or 100% compared to the current CPRA on minority populations and by gender. Though the Committee agreed that there was enough evidence to send this project to the POC based on previous data requests, they wanted to ensure that changing the CPRA calculation and adding HLA-DQA1 and DPB1 did not disadvantage minority populations and would look into this more if the project is approved. After the meeting, UNOS Research staff provided preliminary findings that showed a majority of that group to be African American (47.4%), followed by Caucasian (32.7%), Hispanic (13%), Asian (4.7%), and Other (2.2%).

Next steps:

This project will be brought to the POC for consideration at their October 6, 2017, meeting.

Upcoming Meetings

- October 10, 2017
- October 24, 2017 – In Richmond, VA