

**OPTN Pediatric Transplantation Committee  
Meeting Minutes  
June 19, 2019  
Conference Call**

**George Mazariegos, MD, Chair  
Evelyn Hsu, MD, Vice Chair**

**Introduction**

The Pediatric Transplantation Committee (the Committee) met via teleconference on 06/19/2019 to discuss the following agenda items:

1. Update on Pediatric Committee Collaborative Improvement Project
2. KPSAM results on the effect of removing DSA and Region from Kidney, Pancreas, and Kidney-Pancreas organ allocation policy
3. 4 Year Kidney Allocation System (KAS) Report – Pediatric Data
4. Other Significant Items

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

**1. Update on Pediatric Committee Collaborative Improvement Project**

The Committee is currently in the process of selecting a collaborative improvement (CI) project to pursue.

Summary of discussion:

UNOS staff informed the Committee that the UNOS CI team has developed problem statements for each of the four project ideas and has gathered high-level data and literature. The CI Subcommittee is scheduled to meet to review the problem statements. Once they meet, the UNOS CI team will package the problem statements, data, and literature summaries, and build a value factor analysis in SurveyMonkey for Committee leadership to review. The SurveyMonkey will then be sent to the entire Committee and the results will be shared on a future Committee call.

Next steps:

The CI Subcommittee will meet to review the problem statements for each of the four project ideas.

**2. KPSAM results on the effect of removing DSA and Region from Kidney, Pancreas, and Kidney-Pancreas organ allocation policy**

Scientific Registry of Transplant Recipients (SRTR) staff presented modeling results on the proposal to remove donation service area (DSA) and regions from kidney, pancreas, and kidney-pancreas organ allocation.

Summary of Discussion:

UNOS staff noted that the OPTN Kidney and Pancreas Transplantation Committees will be meeting to decide on which model variation to put out as their recommendation for public comment. UNOS staff also informed the Committee that increased priority for pediatric candidates in kidney allocation was included in the modeling. As a result, the modeling was generally favorable for pediatric candidates.

SRTR staff noted that the Kidney-Pancreas Work Group (the Work Group) was formed in 2018 with the goal of removing DSAs and Regions from kidney, pancreas, and kidney-pancreas allocation. The Work Group submitted a previous modeling request to the SRTR in 2018.

The current modeling was created using the kidney-pancreas simulated allocation model (KPSAM), which uses real candidate and donor information to simulate allocation changes. The KPSAM includes some random components to account for random variation. The KPSAM uses one year's worth of data to model the new allocation rules. The KPSAM cannot predict changes in organ acceptance behavior or identify trends over time. The KPSAM is based on standard behavior and assumes organs are discarded after a fixed number of declined offers. The KPSAM also cannot assign statistical significance to any effects. Based on these limitations, the KPSAM is a good tool to estimate relative magnitude/direction of possible effects of a policy change.

Eleven different allocation scenarios were modeled. A number of the models included proximity points, which give additional priority to candidates closer to the donor. Two of the models included step-wise proximity points, which give similar priority to candidates within a small circle around the donor before having proximity points assigned linearly.

SRTR staff then presented data on total transplant counts. The total number of transplants varied by less than 200 transplants across all the models. The number of kidney-pancreas transplants tended to increase relative to kidney-alone transplants with broader sharing. Pancreas-alone candidates tended to decrease with broader sharing. SRTR staff presented data on kidney-alone transplants.

Travel distance was modeled to be greater in the larger circles. Proximity points within the circles tended to reduce travel distance.

The median and average time on dialysis at transplant tended to increase with broader sharing.

Kidney transplant rates for pediatric candidates increased under broader sharing. Kidney-pancreas transplant rates increased globally under broader sharing, while pancreas-alone transplant rates decreased globally under broader sharing.

A Committee member stated that pediatric candidates were broken down into three age groups within the modeling (ages 0-6, 6-11, and 11-18) for transplant rate, transplant count, transplant percentage, post-transplant morality, and post-transplant graft failure. Transplant rates, transplant counts, and transplant percentages increased across all age groups in the modeling. The Committee member noted that post-transplant graft failure increased for teenagers in all of the models except one. The Committee member also noted that post-transplant mortality seemed to increase in some of the models. The Committee member then noted that it will be important to know whether the improved outcomes for the pediatric population are due to broader sharing or increased priority. UNOS staff stated that this would be discussed during the upcoming Kidney Committee meeting.

SRTR staff then noted that they re-ran the first modeling request using the donor-only acceptance model, which included a baseline run where pediatrics did not have any additional priority. The SRTR agreed to compare the two baseline runs during the Kidney Committee meeting, but noted that it is likely that broader sharing improved pediatric outcomes.

A Committee member stated that it is notable that the kidney-pancreas transplant rates increased, because these candidates often compete for transplants with pediatric candidates. Another Committee member asked if the modeling could be broken down by region. SRTR staff stated that some of the modeling is broken down by region, but is not further stratified by age.

A Committee member that will be attending the Kidney Committee meeting asked other Committee members to review the modeling results and pass along their preferences. The Vice Chair asked if they should support broader sharing, as these models improved outcomes for pediatrics the most. A Committee member was concerned that broader sharing would increase graft failure and delayed graft function due to increased travel distance, and noted a preference for 250 nautical mile circle sizes.

Next Steps:

Committee members will review the modeling results and send their preferences to the Committee member attending the upcoming Kidney Committee meeting.

**3. 4 Year Kidney Allocation System (KAS) Report – Pediatric Data**

During a previous meeting, the Committee requested detailed data on the four year outcomes of the kidney allocation system (KAS) for pediatric candidates. UNOS staff completed a portion of the requested analysis.

Summary of Discussion:

A Committee member asked for the final report to include counts and volumes rather than just rates and percentages

UNOS staff stated that the conclusions from the report thus far were:

- Overall, waitlist mortality rates have decreased post-KAS
- Deceased donor transplant rates have decreased for the 0-5 age group but have increase for the 6-10 and 11-17 age groups post-KAS
- Deceased donor transplant rates have increased for pediatric highly sensitized candidates (98-100% calculated panel reactive antibodies (CPRA)) post-KAS
- DR mismatch rates remain higher for all pediatric groups than adults, but pediatric graft survival was higher for both post-KAS DR match/mismatch groups
- As expected, nearly all kidney donors in the 0-5 age group have a kidney donor profile index (KDPI) > 35%
- There have been fewer pediatric transplants from KDPI > 35% donors post-KAS compared to pre-KAS

The Vice Chair asked if any Committee members were interested in publishing some of this data. A number of Committee members noted interest in helping with a manuscript.

Next Steps:

UNOS staff will complete the KAS data request and do a full presentation during the next Committee meeting. Committee members will continue to discuss possible publishing options.

**4. Other Significant Items**

The Vice Chair thanked all the Committee members whose terms are ending on July 1, 2019. The Vice Chair also welcomed new Committee members.

**Upcoming Meetings**

- July 17, 2019 at 4:00 PM EDT – Teleconference
- August 21, at 4:00 PM EDT - Teleconference