

OPTN Kidney Transplantation Committee

Meeting Summary

July 31, 2023

Teleconference

Jim Kim, MD, Chair

Arpita Basu, MD, Vice Chair

Introduction

The Kidney Transplantation Committee (the Committee) met via teleconference on 7/31/2023 to discuss the following agenda items:

1. Organ Allocation Simulation (OASIM) Results: Blood Type
2. OASIM Results: Calculated Panel Reactive Antibody (CPRA)
3. OASIM Results: Travel Distance

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

1. Organ Allocation Simulation (OASIM) Results: Blood Type

The Committee revisited the results of the OASIM Report with a focus on the results for blood type, CPRA, and travel distance. The Committee members were asked to confirm areas where the scenarios met the Committee's goals and discuss areas where it is unclear if the scenarios met the Committees goals.

Presentation summary:

The Committee reviewed the modeling objective for the blood type attribute: equalize blood type access with no decrease in access for blood type O's and B's. Current Kidney policy classifies candidates according to compatible, incompatible, and permissible blood type matches, with prioritization for blood types O and B. Blood type O kidneys are reserved for blood type O recipients, and blood type B kidneys are reserved for blood type B recipients due to limited compatibility. The Kidney Committee previously decided to maintain current screening rules for O and B candidates, and agreed on an objective of not decreasing access across blood types, especially for O and B candidates.

With the four policy scenarios modeled, the OASIM results showed no decrease in transplant rate for blood type O, A, or B. However, the results did show a decrease for blood type AB across all four scenarios. Overall, the results showed fewer differences in access across all blood types.

Summary of Discussion:

An SRTR representative commented the current system has a considerably higher transplant rate recipients with blood type AB. Members suggested that equalization would mean that individuals with blood type AB, who currently have a high rate of transplants, may see a decrease in their access to transplants. Another member expressed concerns about the potential risk to public opinion and how to communicate these modeling results to the general public, especially for candidates with blood type AB. The Chair agreed that messaging of any potential changes to access will be important to consider. Another member questioned if changing the priority for individuals with blood type AB may also affect waiting times for other blood groups. The Committee tentatively agreed to allow the decrease in access

for blood type AB, pending further Massachusetts Institution of Technology (MIT) analysis and optimization of scenarios.

2. OASIM Results: Calculated Panel Reactive Antibody (CPRA)

Presentation summary:

The Committee reviewed the modeling objective for the CPRA attribute: equalize access across CPRA groups, with high access for the highest sensitized (CPRA 99.9 percent and above). Current kidney allocation policy prioritizes high CPRA patients via both classifications and in the form of additional points. 100 percent of CPRA candidates currently receive a significant amount of priority, as do nearly 99 and 98 percent CPRA patients. Candidates also receive additional points based on their CPRA, with the most points granted to the highest CPRA patients. In continuous distribution, CPRA points would no longer be awarded based on categories (ex. 20-29, 30-39, ... 98, 99, 100 percent). Instead, granular CPRA will be used to award priority along a continuous rating scale.

Metrics previously reviewed by the Committee showed very high access for the CPRA 80 to 99.5 percent groups. The OASIM results showed transplant rates for the lowest sensitized candidates remained similar to current simulated policy and lower transplant rates for 80 to 99.5 percent candidates which have fairly high access under current policy. The CPRA 99.5 to 100 percent candidates saw transplant rates drop by half compared to simulated current policy.

Summary of Discussion:

In discussing the OASIM results for the CPRA 80 to 98 percent group specifically, members commented the projected decrease for this category is reasonable considering this group had a significant increase in access since the implementation of the circles policy. The drop in transplant rate for this CPRA group meets the Committee's previously stated goal of equalizing access across the CPRA groups.

In discussing the OASIM results for the CPRA 99.5 to 99.9 percent group, the Committee commented a slight decrease for this group may be tolerable if it equalizes their access with other CPRA groups. However, the Committee re-confirmed access for the 99.9 to 100 percent CPRA group should not dip below current simulated policy. The Committee agreed the scenarios should be further optimized to ensure access is equalized across the CPRA groups while maintaining transplant rates for the highest sensitized (99.9 percent and above).

3. OASIM Results: Travel Distance

Presentation summary:

The Committee reviewed the modeling objective for the proximity efficiency attribute: minimize distance traveled, especially for high KDPI kidneys. The Committee also wanted to ensure kidneys were offered to the vulnerable sub-populations including pediatric and highly sensitized candidates.

The OASIM results showed projected median travel distances for the four policy scenarios compared to simulated current policy. Under simulated current policy, the median travel distance is 158 nautical miles (NM), and the four modeled scenarios showed moderate increases ranging from 159 to 179 NM. The modeling also showed a projected decrease in travel distance for high KDPI kidneys, ranging from 148 to 160 NMs when compared to the simulated current policy distance of 169 NM. When looking at results by age, the modeling did project a large increase in travel distance for the pediatric age group when compared to simulated current policy.

Summary of Discussion:

In discussing the median travel distance for high KDPI kidneys, a member commented they would prefer to see high priority for the high KDPI kidneys to be prioritized for transplant programs within 250 NM to reduce cold ischemic time and increase utilization and outcomes for those kidneys. An **SRTR** representative commented the median travel distance did decrease for high KDPI kidneys within all four scenarios, but distance is being used as a surrogate for efficiency when there are other factors that determine the utilization of these kidneys. Another member agreed and expressed concern that distance does not account for all of the complexities of high KDPI kidneys and distance may not improve their utilization alone. The member asked if the modeling is able to include any other metrics to account for other variables. Staff commented that may be a future improvement to the modeling to build in more metrics for medically complex kidneys, but those tools are not available currently. The member commented even if the kidneys are kept closer, it would still depend on whether those transplant programs have the right candidates to match with those high KDPI kidneys. The Committee decided not to further increase the donor modifier for high KDPI kidneys.

A OPTN Pediatric Transplantation Committee representative expressed concern for the projected increase in median travel distance for the pediatric candidate group. The representative commented there are concerns for what these potential offers will look like and what effect this may have on the pediatric transplant rate. The representative requested to see more metrics comparing pediatric weight with pediatric transplant rates.

Next Steps

The Committee will continue discussion of the optimization of policy scenarios on their next call, including further discussion and evaluation of pediatric travel distance. The Committee's discussions will inform further optimization of the policy scenarios, to be reviewed at a future meeting.

Upcoming Meetings

- August 21, 2023 – Conference Call

Attendance

- **Committee Members**
 - Jim Kim
 - Arpita Basu
 - Marian Charlton
 - Stephen Almond
 - Reza Saidi
 - Jesse Cox
 - John Lunz
 - Leigh Ann Burgess
 - Martha Pavlakis
 - George Surratt
 - Carrie Jadlowiec
 - Sanjeev Akkina
 - Tania Houle
- **HRSA Representatives**
 - Adriana Martinez
 - Daniel Thompson
 - Jim Bowman
 - Marilyn Levi
- **SRTR Staff**
 - Ajay Israni
 - Peter Stock
 - Bryn Thompson
 - Jon Miller
- **UNOS Staff**
 - Lindsay Larkin
 - Thomas Dolan
 - Keighly Bradbrook
 - Kieran McMahon
 - Kayla Temple
 - Kim Uccellini
 - Krissy Laurie
 - Lauren Motley
 - Carly Layman
 - Ben Wolford
 - James Alcorn
 - Kaitlin Swanner
 - Rebecca Fitz Marino
- **Other**
 - Namrata Jain
 - Rachel Engen