OPTN Kidney Transplantation Committee
Meeting Summary
February 6, 2023
Teleconference

Martha Pavlakis, MD, Chair
Jim Kim, MD, Vice Chair

Introduction

The Kidney Transplantation Committee (the Committee) met via teleconference on 2/6/2023 to discuss the following agenda items:

1. Welcome and Announcements
2. Focused Discussion: Longevity Matching

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

1. Welcome and Announcements

Staff and Committee Leadership welcomed the Committee members.

Summary of discussion:

There were no questions or comments.

2. Focused Discussion: Longevity Matching

The Committee revisited their discussion on the longevity matching rating scale.

Presentation summary:

Current policy prioritizes top 20 percent kidney donor profile index (KDPI kidneys for top 20 percent estimated post-transplant survival score (EPTS) candidates. The Organ Allocation Simulation (OASIM) results showed that expanded and increased weight on longevity matching resulted in:

- Lower transplant rates in 25-50 year old candidates
- Post-transplant graft failure rates lower in 18-34 and 35-49 year olds at 1 and 10 years
- Increased graft failure rates in older kidney recipients

The Committee reviewed options for the longevity matching rating scale and pros and cons of each. A categorical scale such as top 20 to top 20 is similar to current policy and maintains the highest quality grafts are matched with the longest expected survival. However, a categorical scale also maintains a categorical boundary and limit the system's ability to emphasize utility. Expanded longevity matching scales allow for a more direct relationship between EPTS and KDPI values and allow for further tweaking in future iterations of continuous distribution. However, as previously discussed by the Committee, the current EPTS and KDPI calculators are in need of revision and there is a lack of sufficient data to support longevity matching in the middle ranges.

Additionally, the Committee reviewed other considerations that were previously discussed:

- Current policy requires that patients are consented for KDPI greater than 85 percent. Patient choice and consent should be considered prior to expanding longevity matching

- High EPTS/KDPI matching was opposed by the community previously
- EPTS/KDPI are more validated at the extremes
- Lack of clear community consensus on goals for EPTS 21+

The Committee also revisited the three optimized policy scenarios discussed at the previous meeting, which incorporated an expanded longevity matching rating scale. The rating scale was designed to achieve similar transplant rates across EPTS groups. However, the data showed the high EPTS groups still have increased access compared to current policy and the low EPTS groups have less access due to the relationship between the longevity matching and qualifying time attributes. High EPTS groups tend to have longer wait times, resulting in these candidates receiving increased priority for both longevity matching and qualifying time. Additionally, as qualifying time weight increases, low EPTS access decreases.

Summary of discussion:

A member asked what the age distribution is across EPTS groups and whether the lowest EPTS group is including pediatric candidates. Staff clarified that currently EPTS scores are not used for pediatric candidates. However, in continuous distribution, pediatric candidates will be assigned the lowest possible EPTS score, as EPTS is not validated for pediatric candidates. Staff also commented that although EPTS scores are not used for pediatric candidates currently, age is a factor in EPTS so lower EPTS groups tend to be younger individuals and higher EPTS groups tend to be older individuals.

The Vice Chair asked what the distribution of EPTS scores looks like across the wait list currently. The Committee reviewed a graph reflecting access under current policy for different EPTS groups. The graph showed that currently, lower EPTS groups have higher access than middle-range EPTS groups. The graph showed high EPTS candidates have high access as well. Committee members commented this is likely due to the high KDPI kidneys being offered to the high EPTS candidates or due to their long wait times. Staff also reminded the Committee when reviewing Massachusetts Institute of Technology (MIT) and Scientific Registry of Transplant Recipients (SRTR) modeling results to remember they do not model behavior or acceptance practices.

The Chair commented they are in favor of maintaining current top 20 to top 20 policy and gathering further community input and sentiment before expanding longevity matching further. A member commented their concern with maintaining a categorical scale is whether that type of scale is dynamic and as easily adjusted in future iterations of the project. The Chair commented another consideration is the first iteration of continuous distribution removes a lot of categorical boundaries, but there should be more community consensus building for key points such as how to expand longevity matching in the new system.

In reviewing the optimized policy scenario data again, staff commented high EPTS candidates are getting increased priority due to the combination of longevity matching and qualifying time weights. Staff asked the Committee what the goal should be to balance longevity matching and qualifying time together. Members commented high EPTS candidates may have longer wait times than middle-range EPTS groups due to the inclusion of time on dialysis in the EPTS calculator, having high sensitization, or other comorbidities. The Vice Chair commented high EPTS candidates should be transplanted as quickly as possible. Also, the Vice Chair commented the pediatric population should be carefully considered to make sure their priority is not being reduced and reminded the Committee that pediatric priority was given very high weight by the community in the values prioritization exercise. Members commented goals may be different for different EPTS groups. For example, excellent longevity matching for the lower EPTS groups may be more important where as reducing wait time may be more important for the higher EPTS groups. The Vice Chair further commented the goal for high EPTS groups should be to make

sure those candidates are transplanted faster, not to match high EPTS candidates with high KDPI kidneys as those outcomes could be worse. The Chair commented the goal for the middle EPTS range is still unclear.

The Committee reviewed previous discussions on what the goal of the longevity matching attribute should be. Previous Committee discussions have indicated preference to balance:

- Matching low KDPI kidneys to low EPTS candidates
- Stable transplant rates for all candidate groups, particularly middle EPTS groups
- Ensure candidates with high waiting times have appropriate access to transplant

Members commented it is still unclear how to apply these goals across all EPTS groups. Based on previous Committee discussions and metrics reviewed, Staff recommended maintaining top 20 to top 20 policy for the first iteration of continuous distribution. Additionally, Staff recommended the Committee could address the balance of longevity matching versus qualifying time via weights and continue to explore expanded longevity matching in a future iteration of the project, as well as adjusting EPTS and KDPI calculations.

A member asked if maintaining top 20 to top 20 policy would be more difficult to adjust in future iterations. Staff clarified that any adjustments to attributes, rating scales, or weights would still follow the policy development process and require public comment and approval. However, once the initial framework is in place, the Committee will have the opportunity to focus on key pieces of the framework to iterate changes. A member commented ongoing transparency and communication to the transplant community will be very important to ensure understanding of the new system, and its advantages and disadvantages. The member further commented future modeling should focus on patient survival collectively. An SRTR representative reminded the Committee that modeling cannot predict acceptance behavior. A member commented the recommendation to maintain top 20 to top 20 is the best solution at this point until the Committee is able to explore expanding longevity matching more. Another member agreed and commented the discussion should be tabled until the KDPI calculation is updated.

The Committee was informally polled and was in support of the recommendation to maintain top 20 to top 20 policy for the initial continuous distribution framework, and explore longevity matching in a future iteration.

Next Steps

The Committee will continue discussions on policy scenarios to include in the next modeling request at their next meeting.

Upcoming Meetings

- February 13, 2023 – Conference call

Attendance

- **Committee Members**
  - Jim Kim
  - Jason Rolls
  - Arpita Basu
  - Steve Almond
  - Caroline Jadlowiec
  - Jesse Cox
  - Asif Sharfuddin
  - Pete Lalli
  - Patrick Gee
  - Sanjeev Akkina
  - Kristen Adams
  - Marian Charlton
  - Oscar Serrano
  - Tania Houle
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
- **SRTR Staff**
  - Ajay Israni
  - Bryn Thompson
  - Grace Lyden
  - Jonathan Miller
  - Peter Stock
- **UNOS Staff**
  - Lindsay Larkin
  - Kayla Temple
  - Keighly Bradbrook
  - Kieran McMahon
  - Thomas Dolan
  - Kim Uccellini
  - Amber Fritz
  - Isaac Hager
  - Joann White
  - James Alcorn
  - Lauren Motley
  - Ross Walton
  - Ruthanne Leishman
  - Sara Moriarty
- **Other**
  - Caitlin Peterson
  - Namrata Jain