OPTN Kidney & Pancreas Transplantation Committee Continuous Distribution Workgroup
Meeting Summary
April 8, 2022
Conference Call

Rachel Forbes, MD, Chair
Oyedolamu Olaitan, MD, Vice Chair
Martha Pavlakis, MD, Chair
Jim Kim, MD, Vice Chair

Introduction

The Kidney & Pancreas Transplantation Committee Continuous Distribution Workgroup (the Workgroup) met via Citrix GoToMeeting teleconference on 4/8/2022 to discuss the following agenda items:

1. Review/Discussion: Continuous Distribution of Kidneys and Pancreata
2. Timeline & Next Steps

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

**1. Review/Discussion: Continuous Distribution of Kidneys and Pancreata**

The Workgroup reviewed the goal of the continuous distribution project, which is to change allocation from a classification-based system to a points-based system, and the identified attributes. The Workgroup is currently preparing to submit their first modeling request to Scientific Registry of Transplant Recipients (SRTR).

Kidney Placement Efficiency Rating Scale

The Workgroup discussed the kidney rating scale for placement efficiency and had supported a proximity rating scale framework recommended by staff when it was presented last fall. The proximity rating scale the Workgroup supported did the following:

- Prioritized candidates listed closest to the donor hospital
- Required value judgements from the Workgroup

The following piecewise linear proximity rating scale was presented to the Workgroup and members were asked to provide feedback:
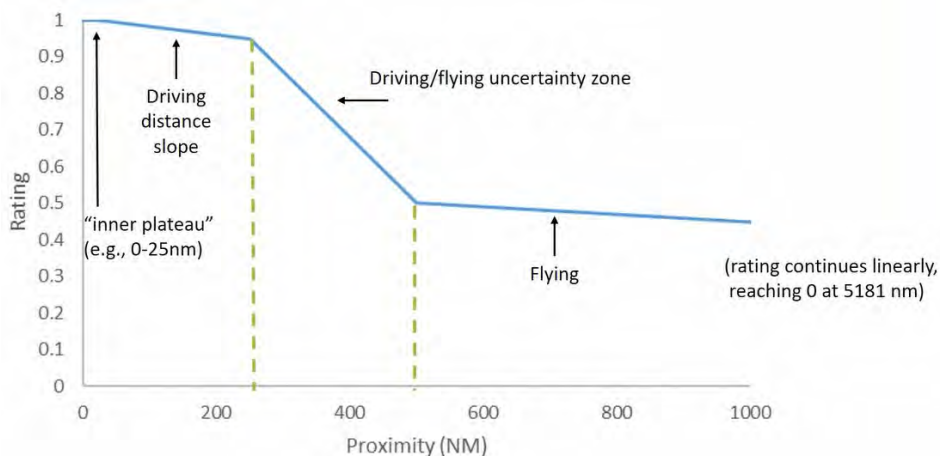
Summary of discussion:

A member stated that they think the shape of the piecewise linear proximity rating scale seems reasonable and that it makes sense that within the driving slope there's a similar amount of priority, but once an organ switches to flying from driving it makes it more difficult outside that area. Staff explained that they were glad to hear that that is still the sentiment of the Workgroup from when they were presented this in the fall of 2021.

Staff also explained that they were using organ center travel data to determine the driving and flying distance thresholds.

Staff posed the following questions for discussion:

- How far should the inner plateau extend? (0 nautical miles (NM), 25 NM, 50 NM, other?)
- How much should allocation prioritize candidates closer to the donor hospital when the organ is expected to drive?
- How much should allocation prioritize candidates closer to the donor hospital when the organ is expected to fly?

A member inquired if this discussion was solely for the kidney proximity rating scale, since the rating scale for pancreas, kidney-pancreas (KP) and islets may be slightly different. Staff agreed and explained that the discussion in this meeting will be about the kidney rating scale.

A member stated that they would agree that there should be an inner plateau and a steep driving/flying uncertainty slope between about 250 NM and 500 NM. The member noted that one of the big takeaways from public comment was the concern about increased travel times and delayed graft function (DGF) under the concentric circles. Therefore, the member suggested that a model with little difference between 5 NM and 200 NM may not be a good idea. The member also agreed that difficult to place kidneys should be treated differently – there could be the same general shape to the rating scale but different slopes in different geographic areas.

A member agreed that an inner plateau makes sense, but thought 25 NM may be too short. The member also expressed the same concern about high kidney donor profile index (KDPI) and donation after cardiac death (DCD) kidneys and how the kidneys will be impacted by these distances. The member noted that this also depends on the weight that the Workgroup decides to assign to this attribute, so there may need to be a different placement efficiency weight for those particular kidneys. Staff explained that, with a five percent weight on this attribute, there will be certain slope for the whole curve; however, if there's a 15 percent weight it essentially makes the whole curve steeper.

A member stated that they would agree with a steeper slope within the 250 NM distance. The member explained the importance of the weight assigned to the proximity attribute and inquired why the proposed weight for proximity is 10-20 percent, although the AHP results showed that the community weighed proximity around 3-5 percent. Staff explained that this was similar to what happened in lung continuous distribution – the AHP results showed proximity weighed with a certain weight; however, once the OPTN Lung Committee started to consider practical considerations, they changed the weight. It was emphasized that the AHP results are just a starting point for the Workgroup.

A member also inquired why the proximity rating scale is not using the full numerical scale for distance. Staff explained that the proximity rating scale goes to the maximum possible distance between any donor hospital and transplant hospital, which is where the curve would reach zero.

A member inquired if placement efficiency can also include the number of organ offers that a transplant hospital is receiving. With the proposed rating scale, essentially there is no difference between 1 NM

and 250 NM. The member explained that this could have an effect on the efficiency and cost-effectiveness of the work done by transplant hospitals if they are receiving a lot of offers within 250 NM. Staff explained that SRTR is going to incorporate a match run complexity metric in their modeling to help the Workgroup decide how the relationship between proximity and efficiency might look in the new framework, so that will be an output of the first round of modeling.

A member stated that the inner plateau of 25 NM seems small and suggested that 50 NM may make more sense, since that would equate to about an hour drive. The member also mentioned that the slope to 250 NM may not be steep enough and inquired if there's a way to make a similar slope reflecting how proximity currently works, so the Workgroup can at least visualize and understand the current state. Members agreed that this would be helpful in making decisions. Staff stated that is something they can try to put together and explained that there will be a sensitivity tool that the Workgroup can use to visualize the difference between two rating scales.

A member emphasized that there are already placement inefficiency issues at 250 NM – for example, programs can get into time crunches due to crossmatch time with post-procurement and post-procurement/donation after circulatory death (DCD) kidneys.

Members agreed that there should be an inner plateau and it should extend to 50 NM for the kidney placement efficiency rating scale. A member mentioned that they support the amount of nautical miles that correlates with driving about one to two hours.

Members were shown two options for the driving distance slope: (1) the slope dropping to 95 percent and (2) the slope dropping to 75 percent.

Members preferred the driving slope dropping to 75 percent; however, there was concern that that was too steep of a drop. A member noted that they are concerned with dropping the driving slope to 75 percent at 250 NM due to their experience in Region 6, which has a large land area, and knowing where their donors come from. Staff explained that the intention of the two options was to show two extremes for the purpose of possibly modeling both to see the differences; however, if there is a middle ground that the Workgroup agrees on then the modeling can focus on experimenting with different weights for placement efficiency. Staff inquired how the Workgroup feels about having the slope drop to 85 percent. Members agreed that that seemed more reasonable.

A member inquired if there had been any discussion about the inner plateau needing to be a different distance depending on the area of the country. The member stated that they are in a metropolitan area that is close to other cities and suggested that it may make more sense for the Northeast to have a smaller inner plateau compared to out West. Staff explained that there would have to be strong justification for treating distance differently for some patients in one part of the country versus another. Staff again mentioned that SRTR will be including a match run complexity metric, which will stratify results by different geographical areas and could help further this discussion.

2. **Timeline & Next Steps**

Staff explained that the Workgroup will continue to have similar discussions throughout the rest of the month so the Workgroup can finalize their first modeling request to SRTR during the April 29 meeting.

Upcoming Meetings

- April 15, 2022 (Teleconference)
- April 22, 2022 (Teleconference)
- April 29, 2022 (Teleconference)

Attendance

- **Workgroup Members**
  - Rachel Forbes
  - Oyedolamu Olaitan
  - Aaron Wightman
  - Abigail Martin
  - Caitlin Shearer
  - Parul Patel
  - Rachel Engen
  - Silke Niederhaus
  - Todd Pesavento
  - Warren McKinney
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
  - Raelene Skerda
- **SRTR Representatives**
  - Bryn Thompson
  - Grace Lyden
  - Jonathan Miller
  - Raja Kandaswamy
- **UNOS Staff**
  - Joann White
  - Rebecca Brookman
  - Kayla Temple
  - Ross Walton
  - Benjamin Wolford
  - Darby Harris
  - Darren Stewart
  - Kaitlin Swanner
  - Kim Uccellini
  - Lauren Mauk
  - Lauren Motley
  - Rebecca Fitz Marino
  - Sarah Booker