

## OPTN Kidney & Pancreas Transplantation Committee Continuous Distribution Workgroup

### Meeting Summary

April 15, 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 4/15/2022 to discuss the following agenda items:

1. Project Outlines and Goals
2. Review/Discussion: Analytic Hierarchy Process (AHP) results
3. Discussion: Donor Characteristics
4. Kidney and Pancreas Sensitivity Tool Preview
5. Discussion: Waiting Time

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

#### 1. Project Outlines and Goals

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. The Workgroup is currently in the "build framework" phase of the project and gathering feedback from the community on the Kidney & Pancreas Continuous Distribution Request for Feedback.

The Workgroup reviewed the ground rules for the upcoming discussions, which encouraged full participation and engagement. Additional considerations were also shared with the Workgroup to outline the purpose of this phase of the project:

- Goal: Transition current policy into Continuous Distribution framework
  - For those recommendations that are not aligned with current policy, provide strong justification in reasoning
- These decisions are **not** final; the decisions made are for modeling
- This is the **first** round of modeling (there will be two)
  - First round: Test effects of what would happen in extreme cases
  - Second round: Can be more detailed/granular

#### Summary of discussion:

There was no discussion.

#### 2. Review/Discussion: Analytic Hierarchy Process (AHP) Results

The Workgroup reviewed the results of the Kidney and Pancreas AHP exercises. It was noted that the AHP results will not be a direct translation into the weights for the framework, but instead will be used as a starting point for the Workgroup discussions on attributes weights.

The results reviewed with the Workgroup are as follows:

- The participation of the Kidney and Pancreas AHP exercises were similar; participation overall more than doubled from the Lung AHP exercise
- The most participation came from the transplant hospital professional community
- Pancreas overall AHP results: There was consistency across the demographic groups on how attributes were prioritized. There was variation in how much each demographic group prioritized each attribute.
- Kidney overall AHP results: Similar to the Pancreas results, there was consistency across demographic groups on how attributes were prioritized. There was variation in how much each demographic group prioritized each attribute.

The Workgroup was reminded of additional resources that were sent prior to the meeting and available for further reference that included:

- Kidney and Pancreas AHP reports
  - Comprehensive review of AHP results and public comment responses
- Organ Procurement Organization (OPO) and Patient Focus Group summaries
  - Summary of the OPO and Patient focus groups discussions/feedback on AHP results
- Kidney- Pancreas (KP) Continuous Distribution Attribute Memo
  - Summary of the Kidney and Pancreas Committees' project discussions to date
  - Highlights outstanding questions for the Kidney and Pancreas Committees/Workgroup to discuss further

Summary of discussion:

There was no further discussion.

**3. Discussion: Donor Characteristics**

The Workgroup discussed donor characteristics that should be considered to incorporate in the continuous distribution framework.

Summary of discussion:

Based on public comment feedback, there were responses related to consideration for donor characteristics in allocation to help promote efficiencies within the system. The Workgroup was asked, as they reviewed the AHP results, to consider if the weights apply across the spectrum of donor quality that is seen, particularly for kidney, but also for pancreas and KP allocation as well.

The Workgroup reviewed a high-level summary of each of the four sequences as defined by the Kidney Donor Profile Index (KDPI) and the corresponding criteria within each sequence. Staff explained that under current kidney allocation policy, prior living donors are not prioritized for all kidneys; prioritization is more specifically for KDPI 85 percent and below kidneys.

Staff presented another example with pediatrics. Pediatric patients are not prioritized for all kidneys; they receive priority for KDPI 34 percent and below kidneys. Estimated Post Transplant Survival Score (EPTS) is another example where currently the top 20 percent EPTS is prioritized to the top KDPI kidneys.

The Workgroup focused on the kidney after liver (KAL) safety net. With the simultaneous liver-kidney policy that was implemented a few years ago, there was discussion on how to prioritize safety net patients who did not meet the SLK criteria but did need a kidney after receiving a liver. From that policy, safety net patients are prioritized for KDPI 20-100 percent donors.

The Workgroup reviewed the KAL rating scale. The composite allocation score (CAS) would be made up of the KAL attribute rating scale (how does a patient rank among other patients based on this attribute) and the attribute weight (how much does this particular attribute contribute to the overall composite allocation score). The KAL rating scale is binary, meaning that the patient either meets the safety net criteria (and receives points) or they do not. Based on the AHP attribute weights for kidney, the KAL attribute received close to 6 percent of the overall score. The Workgroup was asked to consider and discuss adding a donor modifier to refine the composite score to also account for donor characteristics within each attribute.

The donor modifier would depend on the characteristics of the donor, which in the case of priority for safety net candidates would be KDPI. If, for example, the donor has a KDPI of 0-20 percent, the donor modifier would be zero for this particular attribute and if the donor has a KDPI of 21 – 100 percent, the donor modifier would be one. The weight, rating scale score, and donor modifier would be multiplied for each attribute, then summed across all the attributes to get a candidate's composite allocation score.

The Pancreas Chair voiced agreement and stated that the donor modifier approach seems reasonable. The Pancreas Chair inquired if this approach would have certain patients who would receive priority of a safety net or under another attribute; being in a categorical system now, has that value judgement been made where a heart patient, for example wouldn't receive a kidney because another patient has been prioritized. If so, the math would need to include this. The Pancreas Chair clarified further with an example including liver – if there were a case where the liver team is told that their simultaneous liver-kidney (SLK) patient wouldn't receive the kidney due to another patient being prioritized ahead of that patient.

Staff clarified that these types of scenarios are not necessarily addressed with this conversation; an SLK patient would be determined based on their qualifying criteria and would be allocated based on the liver math run. For the purposes of this discussion, this would address those patients who need to use the safety net. When the SLK policy was developed, it was determined to not prioritize those candidates for lower KDPI kidneys. With transitioning into Continuous Distribution, the question would be how to maintain that decision.

The Pancreas Chair replied by stating that the patient would show on the kidney-liver match run with the liver drawing the allocation. A member clarified that this scenario would not be related to multi-organ allocation for simultaneous liver-kidney at all but instead would be addressing those patients who have received a liver previously and now developed renal failure.

The Kidney Chair stated that by giving the donor modifier one for any KDPI 21 percent and above, all of those candidates would qualify within that category. Based on the classification system, those candidates would fall into various prioritization based on which KDPI sequences they were in. To replicate current policy, the Chair asked if there is room to adjust the scores for each sequence to reflect these variations. Staff clarified that the starting place for this first iteration would be based on the models that are currently used in policy right now. The initial goal of the continuous distribution model would be to replicate the current sequences and at future iterations, enhancements can be applied to accomplish a more continuous system.

A straw poll was taken to gauge the Workgroup's consensus on moving forward with the presented approach for donor modifiers for KDPI. The Workgroup agreed (vote of 9 yes, 0 no) with this approach with comments made by some members that long-term scaling should be made for future iterations.

The Kidney Vice Chair asked for clarification that this decision was for modeling and that the safety net was an example for how the donor modifier would be used. Staff clarified that this was correct.

There were no additional comments or questions.

#### **4. Kidney and Pancreas Sensitivity Tool Preview**

The Workgroup received a preview of the kidney and pancreas sensitivity tool. There are two sensitivity tools for members to access that is kidney specific and pancreas/kidney-pancreas (KP)/islet specific. The sensitivity tool allows members to simulate various scenarios by changing the weights, rating scales and donor multipliers for each attribute and helps to visualize the impact those changes could have on the overall match run.

The Workgroup was encouraged to use the tool to try various scenarios and provide any feedback.

##### Summary of discussion:

The Kidney Chair asked for clarification on determining why a candidate may show up as a null candidate. Staff clarified that for the blood type match run, this would not show up on the blood type B match run, but it would show up on the blood type O match run. Candidates who show as null on this match run indicate those candidates who would have been screened off the current match run because of the blood type screening rules for blood type O. Those null candidates were included in the sensitivity tool since the rating scale had not been decided yet on whether the Workgroup wants to continue to blood type screening as it is currently in policy or have a preference for identical blood types over compatible blood types.

A member asked if the placement efficiency in the modeling reflects the Workgroup's most recent discussions. Staff clarified that this would be updated with a few options for the members to see within the tool. Staff continued by stating that the pancreas sensitivity tool is similar in functionality but there are differences in rating scales in terms of the attributes that apply. For example, for pancreas, there is an attribute for which organ a candidate is registered for (solid organs vs. islets).

There were no additional comments or questions.

#### **5. Discussion: Waiting Time**

The Workgroup reviewed previous discussions on the waiting time attribute and were asked to decide on the inflection point for the waiting time rating scale.

From previous discussions, the Kidney Committee supported a waiting time rating scale with no ceiling or curve. The Workgroup was asked to determine the inflection point that would indicate the number of years of qualifying time that would accrue 100 percent of points on the waiting time rating scale.

To help inform the Workgroup, staff provided an overview of historical data on and the distribution of qualifying time for kidney registrations by month from 2017 to present. The 95<sup>th</sup> percentile of registrations were waiting approximately 10 years or less and has been relatively consistent over the past several years. The Workgroup was then asked what length of qualifying time should receive 100 percent of points on the waiting time rating scale. Staff shared that the Kidney leadership reviewed and discussed prior to the meeting and recommended that 10 years was a reasonable inflection point.

The Workgroup was asked to vote for the kidney waiting time rating scale on if they agreed with the Kidney leadership's recommendation of having an inflection point for the waiting time rating scale at 10 years. The Workgroup supported the recommendation.

The Workgroup then reviewed the Pancreas waiting time rating scale recommendation. The Pancreas Committee supported a linear to curve rating scale with no ceiling. The Workgroup reviewed historical data for the kidney-pancreas (KP) and pancreas registrations by month dating from 2017 to present. The

data was relatively similar to the kidney data. The average waiting times were lower than kidney with the 95<sup>th</sup> percentile of registrations showing that waiting time was approximately 9 years or less.

A member asked if the kidney data was available by race. SRTR staff clarified that SRTR data has shown that African Americans come with longer wait times to the wait list because they are referred late; this may be true for other minorities as well. Staff replied that there are different scenarios that could be looked into and for the purposes of this first iteration of the continuous distribution framework, the weight would apply the same for everyone. Additional factors could be further discussed and factored at a later iteration. The member replied by stating that the disadvantage among African Americans could be present if the curve is blunted and should be considered as the Workgroup continues to develop the framework.

The Pancreas Committee will continue to discuss and come to a decision on the inflection point for the KP/pancreas waiting time rating scale during their upcoming Pancreas Committee call.

There were no further comments or questions. The meeting was adjourned.

### **Upcoming Meetings**

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

## Attendance

- **Workgroup Members**
  - Martha Pavlakis
  - Rachel Forbes
  - Jim Kim
  - Abigail Martin
  - Amy Evenson
  - Bea Concepcion
  - Caitlin Shearer
  - PJ Geraghty
  - Parul Patel
  - Rachel Engen
  - Silke Niederhaus
  - John Barcia
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
  - Raelene Skerda
- **SRTR Representatives**
  - Ajay Israni
  - Bryn Thompson
  - Dave Weimer
  - Grace Lyden
  - Jonathan Miller
  - Josh Pyke
  - Nick Wood
  - Tim Weaver
- **UNOS Staff**
  - Lindsay Larkin
  - Rebecca Brookman
  - Kayla Temple
  - Amanda Robinson
  - Sarah Booker
  - James Alcorn
  - Alison Wilhelm
  - Joel Newman
  - Kaitlin Swanner
  - Kim Uccellini
  - Laura Schmitt
  - Lauren Mauk
  - Lauren Motley
  - Rebecca Marino
  - Ross Walton