OPTN Liver and Intestinal Organ Transplantation Committee
Meeting Summary
June 16, 2023
Conference Call

James Pomposelli, MD, PhD, Chair
Scott Biggins, MD, Vice Chair

Introduction

The OPTN Liver and Intestinal Organ Transplantation Committee (the Committee) met via Citrix GoToMeeting teleconference on 06/16/2023 to discuss the following agenda items:

1. Discussion: Continuous Distribution Attribute Outcome Metrics
2. Member Recognition

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

1. Discussion: Continuous Distribution Attribute Outcome Metrics:

The Committee discussed outcome metrics to include in the optimization analysis for each continuous distribution attribute.

Summary of discussions:

The Chair began the conversation by mentioning their concern with sequence number because receiving an organ offer does not guarantee a candidate will receive a transplant. They recommended that success be defined as candidates undergoing a transplant, rather than receiving an organ offer, as transplant rate depends on transplant program behavior, such as listing practices.

Attribute: Medical Urgency

A member suggested measuring the success of the Medical Urgency attribute by stratifying Model for End-Stage Liver Disease (MELD) score into brackets by waitlist mortality. The member noted it is important to understand the impact of potential policy changes on transplant for very sick candidates.

A member recommended a different metric to measure the total number of transplants to ensure that it is maintained or improved in continuous distribution, and that the total number of transplants predicted does not decrease. Another member advised the metric to be the count of waitlist deaths and removal for too sick to transplant by MELD score categories while preserving transplant rate.

The Vice Chair emphasized to the group that the metric of success of medical urgency should be waitlist mortality. A member agreed and said that removal from the waitlist for anything other than transplant should be considered as waitlist mortality. The Vice Chair noted that some candidates are removed from the waitlist due to help improvements and no longer need a transplant.

Attribute: Pediatric Priority

The Chair brought up the metric of pediatric priority, and noted that a large portion of the pediatric candidate population have MELD or PELD exceptions, therefore it may not be beneficial to stratify by MELD or PELD score. They asked if the number of pediatric transplants is an adequate metric or if waitlist mortality would be better. The Vice Chair said they interpret the goal of the pediatric priority

attribute as an attempt to eliminate pediatric waitlist mortality and thus, count of pediatric transplants performed might work well. They agreed with the Chair that PELD may not be a good metric.

The Chair said the goal of the pediatric priority attribute should be to have pediatric candidates transplanted very quickly once they are on the waitlist. A member suggested the metric be "time to transplant".

An incoming member said that pediatric candidates vary, as there can be more complex factors besides medical urgency. The Vice Chair suggested to have a metric to measure the size of the waitlist. A member raised a concern that the Committee is assuming that transplant benefits every candidate which may not be accurate due to the complexities of medical histories and diagnoses. The member suggested that there must be a hard metric such as a measure of mortality. They stated that the waitlist could never be zero so a better goal may be to reduce the size of the waitlist.

The Vice Chair agreed that an appropriate metric of success would be to minimize the time that a pediatric candidate is active on the waitlist.

Attribute: Prior Living Donor

The Chair noted that feedback from the values prioritization exercise (VPE) showed respondents thought that living donors should receive priority. A member recognizes that a small number of candidates are prior living donors but believes that it would be useful to understand the impact of prior living donor priority in the allocation system.

Attribute: Split Liver

The Vice Chair said a challenge that may arise is that there may be splittable livers offered to a candidate that would be a good candidate for a split liver graft, but they do not receive a split liver transplant due to transplant program behavior. They suggested a metric of success to be that all splittable livers should be offered to pediatric and small statured candidates.

A member stated an allocation system should ensure that candidates who would benefit from a split liver transplant should be the ones receiving those offers. The member explained that an allocation system cannot control transplant program behavior, but the priority is to allocate it to the candidates who should receive a split liver offer as much as possible. The Vice Chair agreed and said that understanding the percent of match runs for splittable livers with pediatric or small statured candidates in the top five candidates as a metric of success would help understand how to reach that goal. The Chair agreed. The Chair said that although it would be beneficial to have more transplants programs performing split liver transplants, that cannot be mandated because not all transplant programs have the surgical expertise to perform them.

Attribute: Blood Type

The Chair expressed concern regarding transplant rates as a metric of success, as that can be easily manipulated by a transplant program. An SRTR representative reminded that simulations are based on historical data and that will not model changes in behavior. The Vice Chair agreed with the Chair and said that transplant programs vary in listing practices and some transplant programs are going to have small waitlist sizes, which is not indicative of disparities that some of the attributes are attempting to minimize. They said that a metric of success may be the difference between blood type with the highest percent of match runs with candidates in the top five and blood type with the lowest percent of match runs with candidates in the top five, as they want to minimize variance. In the metric of blood type, the Vice Chair said this would be trying to minimize the variance of the percentage of those who had a blood group of Os at the top of the list compared to those with blood types A and B. The Vice Chair stated that

the goal may be to minimize the disparity rather than equalizing the disparity. The Chair noted that access also depends on the blood type distribution among the donor population. The Chair added that distance travelled for organs may increase dramatically if the goal is to equalize access based on blood type.

Attribute: Height/Body Surface Area (BSA)

A member of the community suggested time to transplant at a specific MELD score compared for a given blood type by size. The member of the community suggested this metric would help understand the ability to minimize differences in wait times for smaller statured individuals.

The Vice Chair said that previous literature defined an approach as placing the bottom 10% in size of liver grafts in the bottom 15 % of the size of candidates. The member of the community stated that this approach could utilize BSA or height, but the key is to prioritize small statured candidates for the subset of small donors in order to have small statured candidates transplanted faster. A member suggested measuring the disparity in death on the waitlist. The member explained that younger candidates or smaller-statured candidates have higher mortality, which is what the Committee should strive to do address. The member noted that disparity in waitlist death or removal for too sick is important to understand for each of the attributes that are focused on disparities.

Next steps:

The Committee will continue to determine the purpose and metrics of success for each attribute.

2. Member Recognition

Committee members were recognized and thanked for their contribution and engagement during their service on the Committee.

Upcoming Meetings

- July 7, 2023@ 2:00 PM ET (teleconference)
- July 21, 2023 @ 2:00 PM ET (teleconference)

Attendance

- **Committee Members**
  - Aaron Ahearn
  - Alan Gunderson
  - Allison Kwong
  - Erin Maynard
  - Greg McKenna
  - James Eason
  - James Pomposelli
  - James Trotter
  - Joseph DiNorcia
  - Kym Watt
  - Peter Abt
  - Peter Matthews
  - Scott Biggins
  - Shimul Shah
  - Sophoclis Alexopoulos
  - Vanessa Pucciarelli
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
- **SRTR Staff**
  - Jack Lake
  - Katie Audette
  - Nicholas Wood
  - Tim Weaver
- **UNOS Staff**
  - Erin Schnellinger
  - Katrina Gauntt
  - Kayla Balfour
  - Laura Schmitt
  - Matt Cafarella
  - Meghan McDermott
  - Susan Tlusty
- **Other**
  - Catherine Kling
  - Dave Weimer
  - Danielle Haakinson
  - Jennifer Murriett
  - Nikos Trichakis
  - Sanjay Mehrota
  - Ted Papalexopolous