OPTN Ad Hoc Multi-Organ Transplantation Committee
Meeting Summary
March 14, 2022
Conference Call

Alden Doyle, MD, MPH, Chair

Introduction

The Ad Hoc Multi-Organ Transplantation (MOT) Committee met via Citrix GoTo Meeting teleconference on 03/14/2022 to discuss the following agenda items:

1. Incorporating Kidney-Related MOT into the Kidney Allocation System
2. Provide Feedback on Safety Net in Continuous Distribution
3. Implementation of *Clarify Multi-Organ Allocation Policy*

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

1. Incorporating Kidney-Related MOT into the Kidney Allocation System

Dr. Xingxing Cheng, from Stanford University, and Dr. Scott Westphal, from University of Nebraska, presented their suggestions on incorporating kidney-related MOT into the existing Kidney Allocation System. The presenters authored a letter to the editor published in the American Journal of Transplantation.[1] The presentation analyzes why MOT bypassing all kidney allocation is a problem. For continuous distribution, the presenters recommend incorporating MOT into medical urgency by developing different scores based on the severity of kidney disease.

Summary of discussion:

The presentation noted that individuals who received Simultaneous Liver-Kidney (SLK) transplants had similar outcomes as those transplanted through the safety net. The Chair inquired if the outcomes looked similar for simultaneous heart-kidney (SHK) transplant versus kidney after heart transplant. While the thoracic data is scant, the presenter noted her center experiences less than ideal outcomes for simultaneous heart-kidney patients due to vasoplegia after transplant.

A member commented that while there is a desire to make decisions in an obbjective manner, there is a level of subjectivity and there are ethical decisions that the community has made that impact current decision-making. The member added that the community is invested in the success of organs and sometimes one may not survive without the other. The member inquired if the presenter had guidance on how the Committee ought to combine outcomes data with subjective decisions and ethical considerations to develop consistent MOT policy.

The presenter responded that there are some standards all practitioners can agree on, such as everyone should have a chance to receive a transplant regardless of what transplant they may need. The presenter shared details on their work developing a willingness-to-transplant threshold, which can be used to help quantify the minimum amount of survival benefit for which an organ should be transplanted. The presenter also noted the challenge in coordinating care for kidney transplant

[1] Xingxing S. Cheng and Peter P. Reese, "Incorporating kidney-related multi-organ transplants into the kidney allocation sequence," *American Journal of Transplantation* 21, 7 (July 2021): 2614-2615. https://doi.org/10.1111/ajt.16542

candidates who are managed through community nephrologists as opposed to thoracic transplant candidates who are managed by their program's transplant team. The co-presenter added that in developing a framework for MOT, it will be important to consider factors such as high sensitization and medical urgency when determining to allocate to an MOT or single organ transplant (SOT) candidate.

Members voiced support for developing a tiered system to balance MOT with SOT and agreed that one should not have complete priority over the other. A member added that a tiered approach would be more consistent with the frameworks being developed for continuous distribution.

The Chair noted the Committee's decision to frame the simultaneous heart-kidney (SHK) and simultaneous lung-kidney (SLuK) around the SLK policy as a starting point and then adjust as needed once data becomes available. A member commented that the Committee made the right decision in developing this project, but emphasized that the lack of structure for prioritization between MOT and SOT is a major flaw in the system. The member used the example that a Status 3 Heart-Liver patient would receive an MOT offer before a Status 1 Liver-alone patient. A member echoed this sentiment and added that an argument could be made to start allocation off the liver list first as opposed to heart. A member suggested reducing safety net access to only donors with a kidney donor profile index (KDPI) of 35% or greater, as opposed to current policy, which gives safety net candidates some priority for Sequence B kidneys (KDPI 20-34%)..

A member shared that the historic and systematic decision to prioritize MOT over SOT is rooted in the 90-day waitlist mortality outcomes. The member commented that while this is a way to compare the severity of illness across organs, the metric used falls short of developing an accurate or robust comparison of a patient's medical urgency. The presenter added that the 90-day recipient mortality rate is high for MOT recipients and suggested using a scale that considers incremental benefit from transplant.

The presenter shared the experience of her center in developing in-center eligibility criteria for SHK and SLuK and noted that the thoracic colleagues are in favor of the eligibility criteria. This particular center has found a significant amount of primary non-function in kidneys after a SHK transplant and will rely on safety net, when possible, to mitigate this. A member shared the work that Canada has done in developing a tiered approach to balance access for vulnerable populations with MOT and suggested that the OPTN could learn from the Canadian approach.

A member added that MOT allocation should not delay the placement of other organs, especially with the potential for increased organ loss. A member added that late turndowns can cause an issue where Organ Procurement Organizations (OPOs) could end up being in violation of a policy. The member suggested developing policy language that develops a buffer to protect down-list organ offers, that are already offered and accepted, from a penalty in the instance of late turndowns. A member supported this sentiment and suggested the buffer should start when the operating room (OR) time for a transplant is scheduled.

A member advocated for the ability for OPOs to pull a kidney from the next on the list if, for instance, a liver is denied intraoperatively and the next patient on the waitlist needs a liver-kidney transplant to avoid loss of organs. A member countered that efficiency matters and that allocation should move forward to the next liver recipient without concern for loss of the donor organ.

2. Provide feedback on safety net in continuous distribution

Dr. Vince Casingal, a member of the MOT Committee and immediate past chair of the OPTN Kidney Transplantation Committee, presented on how the Kidney Committee proposes integrating the MOT safety net into continuous distribution. Dr. Casingal reviewed the current placement of safety net

priority in the existing Kidney Allocation System and reviewed the attributes identified for the continuous distribution of lungs.

Summary of discussion:

The Chair inquired if the time to transplant from listing for safety net patients will remain the same as it is in the current kidney allocation system. The presenter noted that the access will depend on the weight that the community, and subsequently Kidney-Pancreas Workgroup, decide to provide to these attributes. The presenter suggested that in order to provide access that is similar to the current system, there will need to be a plus or minus 10% weight for safety net, pediatrics, and prior living donors. UNOS staff added that the workgroup's goal is to translate the existing policy into a continuous distribution framework and remove hard boundaries without making anything worse. There will also be two rounds of modeling and a sensitivity tool to review the composite allocation score (CAS) weightings. A member noted that a patient could receive increased access for multiple attributes, such as being sensitized and pediatric.

Currently, the recommendation for including safety net is a yes/no option wherein the candidate would receive the full amount of available points if they were eligible. The Chair supported a static yes/no option, but noted that an alternate could be a tiered approach based on medical urgency or matching a candidate's estimated post-transplant survival (EPTS) score with the KDPI of the donor organ.

3. Implementation of *Clarify Multi-Organ Allocation Policy*

Due to time constraints, the Committee will be discussing this topic at a later meeting.

Upcoming Meeting

- April 11, 2022
- April 14, 2022
- May 9, 2022
- June 13, 2022

Attendance

- **Committee Members**
  - Alden Doyle
  - Chris Curran
  - Dolamu Olaitan
  - Evelyn Hsu
  - James Sharrock
  - Jennifer Prinz
  - Shelley Hall
  - Vincent Casingal
- **HRSA Representatives**
  - Jim Bowman
  - Marilyn Levi
- **SRTR Staff**
  - Grace Lyden
  - Jonathan Miller
  - Josh Pyke
  - Katie Audette
  - Nick Wood
- **UNOS Staff**
  - Ben Wolford
  - Eric Messick
  - Holly Sobczak
  - Kaitlin Swanner
  - Kim Uccellini
  - Laura Schmitt
  - Leah Slife
  - Lindsay Larkin
  - Nicole Benjamin
  - Rebecca Goff
  - Rebecca Marino
  - Ross Walton
- **Other Attendees**
  - Charlie Alexander
  - Scott Westphal
  - Xingxing Cheng
  - Peter Reese