OPTN Liver and Intestinal Organ Transplantation Committee
Meeting Summary
September 15, 2023
Conference Call

Scott Biggins, MD, Chair
Shimul Shah, MD, MHCM, Vice Chair

Introduction

The OPTN Liver and Intestinal Organ Transplantation Committee (the Committee) met via Citrix GoToMeeting teleconference on 09/15/2023 to discuss the following agenda items:

1. Continuous Distribution: Placement Efficiency Attributes

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

1. Continuous Distribution: Placement Efficiency Attributes

The Committee discussed utilizing travel efficiency and proximity efficiency to address access to transplant in liver continuous distribution.

Summary of discussion:

> Decision: The Committee decided to define a medically complex liver as those from donation after circulatory death (DCD) donors and over the age of 70. The Committee is interested in including a fat content threshold if able, acknowledging that that information is not always known at the time of the match run.

A member mentioned that for the transplant programs where they have worked, two hours is the cut off, meaning that if it is within two hours of driving, then the staff will drive to get the liver, but any longer and they will fly. They said that if a transplant program is within two hours, they believe that they should get proximity points.

A member commented that machine perfusion is making things complex, especially with donation after circulatory death (DCD) donors, since machine perfusion can extend the time off-ice for a graft, but also allows the medical team to test the quality of the organ. The member advised the Committee to keep technology like machine perfusion in mind, as this may be an important factor when defining medically complex grafts. With this, the member said they are advocating for DCD donors to be excluded from the medically complex graft definition, especially if they have been preserved mechanically, since these grafts are likely no longer medically complex.

A member reminded the Committee that liver utilization for DCD is significantly lower in comparison to other organs, and agrees that machine preservation will change this, but is unsure when this will happen. They cautioned the Committee in not using DCD to define marginal graft, since acceptance practices vary based on center. The Chair emphasized that it may not be a problem to incentivize transplant programs to accept DCD graft offers and suggested giving candidates points if they are willing to accept a DCD graft, which could be phased out over time if need be. They also emphasized that the

Committee should keep unintended consequences in mind when considering different aspects of continuous distribution.

A member noted that warm ischemic time is a key factor when discussing the acceptance of DCD grafts. The Chair made the Committee aware that they could request data that would provide donor characteristics, allowing them to define a "hard to place" organ. A member said fat content is a factor, as they believe most transplant programs will not accept a graft with more than thirty percent fat content.

A member said a lot of information the Committee wants to utilize, such as fat content, is not available to the medical team during allocation, due to varying practices from organ procurement organizations (OPOs). They recommended that OPOs have a standard procedure for allocating DCD grafts, which may help minimize non-use and will be useful for the medical team to have when evaluating the organ offer. The Chair said if a tool such as biopsy is delayed, it could cause delays in allocation. A member commented that currently, OPOs do not perform pre-donation biopsies for DCD donors, as it is too risky for the donor.

A member noted that an issue with computed tomography (CT) scans do not quantify fat. The Chair said fat content would have to be evaluated using magnetic resonance imaging (MRI) with proton density fat fraction (PDFF) or using transient elastography, though the latter has not been well studied in the donor population. A member pointed out that transient elastography may not be available at every donor hospital. A member mentioned that data will not support non-invasive methods and biopsy can be unreliable, which is why it has not been included.

A member suggested utilizing a donor risk index (DRI) as a solution. A member cautioned that DCD donors are changing, especially with machine perfusion, so the data available may be outdated due to the evolving technology. The Chair reminded the Committee that they can always modify aspects of continuous distribution in later versions.

A member advised leaving DCD as it currently is, since there is not enough data to change it. A member agreed, saying that the Committee will not be able to model what outcomes would be achieved by changing DCD. Another member emphasized the importance of collecting data related to machine perfusion.

A member questioned if the Committee would consider adding "if there is a pre-recovery biopsy and steatosis is less than thirty percent, then those would be considered differently". A member mentioned that it would be helpful to see on the match run if a transplant program would be willing to accept a graft with more than thirty percent fat content and allocate those organs to transplant program that are closer in proximity.

The Chair suggested that transplant programs should discuss with their candidates if they would be willing to take livers that are medically complex liver, and if they agree, they would be able to receive more points in the allocation framework. A member pointed out that a challenge with this is that they do not want very ill candidates to get medically complex grafts.

An SRTR representative suggested that based on how the Committee defines a medically complex lvier offer, SRTR could calculate offer acceptance ratios for those types of grafts and then those offer acceptance ratios could be incorporated as a component in a composite allocation score (CAS). They added that the offer acceptance ratios could be updated with certain timeframes to take into account changes in practices.

The Chair remarked that the Committee should consider including the transplant programs that would be willing to accept medically complex grafts, rather than proximity, as it may not be important if a

transplant program is nearby if they do not accept medically complex organs. A member noted a challenge with this will be giving points in the CAS to the candidate and not the transplant program where the candidate is listed. A member expressed concern that the larger and more aggressive transplant programs that transplant medically complex organs will continue to benefit from this, as those transplant programs will have more opportunities for accepting medically complex organ offers, whereas smaller transplant programs will be disadvantaged. They said a transplant program will not be able to modify its behavior if it is not getting these offers anymore which could potentially penalize candidates based on where they are listed. A member pointed out that transplant programs will have opportunities to still receive offers because there are other attributes in the CAS that will likely have more points and weight. The Chair reminded the Committee that although this is important, it is still not a great number of points, so other attributes will be bigger drivers in a CAS. A member agreed, emphasizing that it must be a small number of points to avoid controversy within the transplant community.

Next steps:

The Committee will continue to discuss attributes related to continuous distribution and will move forward with keeping the marginal graft definition as it currently stands.

Upcoming Meetings

- October 6, 2023 @ 2:00 PM ET (teleconference)
- October 16, 2023 (Detroit, MI)

Attendance

- **Committee Members**
  - Allison Kwong
  - Cal Matsumoto
  - Christine Radolovic
  - Colleen Reed
  - James Pomposelli
  - Jenn Muriett
  - Joseph DiNorcia
  - Kathy Campbell
  - Kym Watt
  - Scott Biggins
  - Shunji Nagai
  - Sophoclis Alexopoulos
  - Vanessa Pucciarelli
- **HRSA Representatives**
  - Jim Bowman
- **SRTR Staff**
  - Jack Lake
  - Katie Audette
  - Nick Wood
  - Tim Weaver
- **UNOS Staff**
  - Betsy Gans
  - Cole Fox
  - Eric Messick
  - Erin Schnellinger
  - James Alcorn
  - Joel Newman
  - Katrina Gauntt
  - Kayla Balfour
  - Matt Cafarella
  - Meghan McDermott
  - Niyati Upadhyay
  - Susan Tlusty
- **Other**
  - David Weimer
  - Emily Perito
  - S. DeLair
  - Samantha Taylor