

**OPTN Liver and Intestinal Organ Transplantation Committee  
National Liver Review Board (NLRB) Subcommittee  
Meeting Summary  
October 21, 2022  
Conference Call**

**James Trotter, MD, Chair**

**Introduction**

The OPTN National Liver Review Board Subcommittee (the Subcommittee) met via Citrix GoToMeeting teleconference on 10/21/2022 to discuss the following agenda items:

1. Challenges in the Multivisceral Transplant Allocation System

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

**1. Challenges in the Multivisceral Transplant Allocation System**

The Subcommittee continued discussing the research regarding challenges with the multivisceral transplant allocation system.<sup>1</sup>

Summary of discussion:

A member of the community stated it would be informative to review data on the allocation MELD for the recipients who did not receive a MELD exception. The member of the community stated that is a larger portion of the multivisceral recipients. The member of the community stated that reviewing that data will also help to understand whether the proposed guidance has any impact. The member of the community stated that education may be needed to inform transplant programs to request exceptions for multivisceral candidates.

The Subcommittee reviewed and discussed drafted guidance for multivisceral transplant exception review. The Subcommittee also reviewed *Policy: 9.1.F: Liver- Intestine Candidates* to help inform their discussions.

A member of the community noted that multivisceral candidates typically have MELD scores less than 20, therefore *Policy 9.1.F* only adds one or two MELD points to their score and does not have a big impact for adult multivisceral candidates.

The Subcommittee reviewed the multivisceral candidate conditions and etiologies outlined in the proposed exception guidance:

- Intestine failure with liver dysfunction
- Diffuse portomesenteric thrombosis
- Neuroendocrine tumors (NET)
- Unresectable intra-abdominal tumors involving the liver or hepatic hilum

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<sup>1</sup> Tommy Ivanics et al. "Impact of the Acuity Circle Model for Liver Allocation on Multivisceral Transplant Candidates," *American Journal of Transplantation* 22, no. 2 (2021): pp. 464-473, <https://doi.org/10.1111/ajt.16803>.

- Catastrophic adhesive disease “frozen abdomen”

A member stated that if a candidate meets the outlined criteria then an exception should be considered. A member of the community agreed. The member of the community added that some candidates with short gut may have acute liver failure or liver injury but there has not been enough time for the candidate to develop stage two fibrosis. The member explained that if the candidate has elevated bilirubin levels or another feature of liver injury determined by laboratory measures, then they should be considered for a multivisceral exception as well. The member agreed.

The Chair asked for the total number of multivisceral transplants performed in a year. A member responded that it is about 50 multivisceral transplant performed a year. The member noted that this number is decreasing. A member of the community added that the total number includes some isolated intestines and liver, excluding intestine graphs such intestine-pancreas.

The Chair asked for information on outcomes of multivisceral transplant recipients based on condition, as well as waitlist mortality of multivisceral candidates based on condition. A member responded that date may be hard to analyze because the OPTN does not collect disease etiology for multivisceral candidates. The member stated that based on clinical experience, neuroendocrine tumors may have better outcomes. The member stated that based on clinical experience, diffuse portomesenteric thrombosis as well as frozen abdomen are difficult surgeries with a high risk of complications. The member stated that based on clinical experience, most of the malignant diseases may have better short-term outcomes. The member stated that based on clinical experience, that intestine failure with liver dysfunction may be in the middle of the spectrum of surgery complications and transplant outcomes.

A member of the community stated the problem is that the multivisceral candidates have minimal options due to the difficulty of clinical management and surgery.

The Chair asked if there were any specific inclusion or exclusion criteria to include in the drafted guidance. The Chair also asked for suggestions for recommended MELD exception scores.

A member of the community suggested that the guidance for neuroendocrine tumors specify that the candidate must have a primary that is present in the pancreas or in the intestine that justifies a multivisceral transplant when a liver-alone transplant cannot be performed.

A member of the community suggested that the guidance for diffuse portomesenteric thrombosis specify that experts should review the computerized tomography (CT) scans for information rather than the CT report to ensure the most accurate information.

That Chair asked for specific indications to include in the guidance to determine whether a multivisceral candidate requires an exception for a higher MELD score. A member stated that when a candidate needs a multivisceral transplant, the candidate is in need of an intestine and pancreas. The member stated this is one reason it is difficult to receive quality organ offers. A member of the community stated that all multivisceral candidates with portomesenteric thrombosis need exception points.

Another member noted that they trust transplant programs to identify the candidates who will benefit from a multivisceral transplant. The member stated it will be important to determine the amount of exception points for the multivisceral candidates. The Chair asked if the amount of exception points can be determined that would reduce the waitlist mortality of multivisceral candidates to align with that of liver candidates. The member responded that most of the multivisceral recipients were transplanted with a MELD exception of 29. The member noted that may be a starting point for determining the amount of exception points

A member asked if the guidance should specify that there needs to be demonstration that there is no splint or renal shunt. Another member agreed that description should be added to the proposed guidance. A member of the community agreed and noted that aligns with their previous suggestion for having an expert review the CT scans.

A member of the community stated that median MELD at transplant (MMaT) plus ten would help multivisceral candidates get transplanted.

The Chair asked what the median MELD score for a multivisceral candidate is. Another member responded that data shows that the median MELD for multivisceral candidates appears to be about 36. The member stated that 69 percent of multivisceral candidates receive a transplant without a MELD exception, and 31 percent of multivisceral candidates receive a transplant with a MELD exception.

The Chair noted that about 50 percent of the multivisceral transplants occurred with MELD scores under 29. A member of the community noted that the numbers for multivisceral transplant are so small that the situational occurrences that happen in order for some of these transplants to occur are not taken into account (e.g. operating room (OR) timing aligning with an offer). The member added that some of these cases also utilized marginal organs, which result in poor outcomes for the multivisceral recipient.

A member noted that the number of multivisceral transplants are small and giving the multivisceral candidates higher priority should not affect the liver transplant waitlist outcomes.

A member asked if the transplant programs can apply for a specific MELD exception score, rather than determining an appropriate amount of exception points relative to MMaT. Staff clarified that the only specific MELD exception score that can be requested is a MELD of 40.

The Chair asked if every multivisceral candidate needs an exception. A member of the community responded that every multivisceral candidate that needs a liver does need an exception. The Chair cautioned that guidance should not promote unnecessary multivisceral cases.

The Chair asked if guidance is necessary if it is applicable to all multivisceral candidates. A member of the community responded that guidance is appropriate to ensure the exception does not get abused.

#### Next steps:

The Committee will continue to discuss options to address the challenges in multi-visceral allocation.

#### **Upcoming Meeting**

- November 15, 2022 @ 1:00 PM ET (teleconference)
- December 8, 2022 @ 2:30 PM ET (teleconference)

## Attendance

- **Subcommittee Members**
  - Alan Gunderson
  - Allison Kwong
  - Greg McKenna
  - James Eason
  - Jim Trotter
- **HRSA Representatives**
  - Jim Bowman
- **UNOS Staff**
  - Erin Schnellinger
  - Kaitlin Swanner
  - Katrina Gauntt
  - Matt Cafarella
- **Other Attendees**
  - Chandrashekhar Kubal
  - Shunji Nagai