

OPTN Liver and Intestinal Organ Transplantation Committee

Meeting Summary

December 1, 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 WebEx teleconference on 12/01/2023 to discuss the following agenda items:

1. Continuous Distribution: Blood Type Rating Scale

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

1. Continuous Distribution: Blood Type Rating Scale

The Committee continued discussing the blood type rating scale that will be used in liver continuous distribution.

Summary of presentation:

The rating scale options discussed from the November 17, 2023 Committee meeting remain the same, but were renamed to show that there was consensus for Option A (previously noted as Option 2).

Option A: Same basis as option B, but upscaled. Purpose of upscaling is to utilize the full amount of points within the rating scale.

ABO	Prop. Ineligible	Upscaled
O	0.5096	1.0000
A	0.1411	0.2769
B	0.3956	0.7763
AB	0.0000	0.0000

Option B: Points based on the proportion of the donor pool that a candidate blood type is ineligible for

ABO	# Donors	# Compatible Donors	Prop. Eligible	Prop. Ineligible
O	9166	9166	0.49	0.5096
A	6888	16054	0.86	0.1411
B	2131	11297	0.60	0.3956
AB	507	18692	1.00	0.0000

Option C: Points based on the proportion of candidates listed per compatible donor. Different than previous options because if fewer candidates are competing for a particular donor, they receive fewer points even though they are compatible with fewer donors overall.

ABO	#	# Donors	#	Ratio	Normalized
	Candidates		Compatible Donors		
O	17957	9166	9166	1.9591	1.0000
A	14221	6888	16054	0.8858	0.4323
B	4398	2131	11297	0.3893	0.1697
AB	1280	507	18692	0.0685	0.0000

Summary of discussion:

Decision: The Committee decided that Option A may be the best approach for a blood type rating scale in liver continuous distribution.

A member voiced their beliefs that the Committee agrees that medical urgency should be the most important parameter in continuous distribution, and worried that blood type could potentially outstrip medical urgency. Another member recommended that the weight of the blood type attribute may diminish as the MELD score increases. The Chair reminded the Committee that interactions between attributes will be more evident once the simulations can be reviewed. They emphasized there will be future opportunities to discuss attribute interactions.

A member commented that option A seems to be the best approach after reviewing all the examples. They agreed that the weights would have to be modified eventually, although they feel that moving forward with option A is the best choice. A member echoed previous sentiments that option A makes sense the most sense for liver continuous distribution. They highlighted the importance of configuring the continuous distribution system so that medical urgency drives when a blood type B candidate receives a liver from a blood type O donor.

A representative from SRTR pointed out that certain areas of the United States have a high prevalence of Asians and African Americans, which predominately have blood type B, so some of them may wait longer in different areas of the country. They urged the Committee to consider the prevalence of blood types within different ethnicities and the impact on wait time, donation rate, and transplant rate.

Another member questioned the significance of travel efficiency regarding what the SRTR representative commented on and is concerned with the interplay between attributes. The Vice Chair repeated earlier comments that they would be able to focus on the interactions between attributes once they can review simulations.

A member shared that they felt that option A seems to be the optimal choice based on principle alone. The Vice Chair again told the Committee that as the mathematical optimization data comes through, they can then analyze and determine the weights for each attribute.

A member commented that the continuous distribution framework should continue to allow access to A2 blood type donors if the O blood type candidate is willing to accept that offer.

An SRTR representative suggested that if the Committee wants blood type O candidates to receive A2 donor livers, then those candidates should be interdigitated. They added that they will find it valuable to see what results the modeling produces.

Next steps:

The Committee will further discuss A2 blood type clinical compatibility. At the next meeting, the Committee will discuss donor modifiers and how they can be incorporated into the continuous distribution system.

Upcoming Meetings

- December 15, 2023 @ 2:00 PM ET (teleconference)
- January 5, 2024 @ 2:00 PM ET (teleconference)

Attendance

- **Committee Members**
 - Scott Biggins
 - Shimul Shah
 - Allison Kwong
 - Cal Matsumoto
 - Christine Radolovic
 - James Pomposelli
 - Jennifer Muriett
 - Joseph DiNorcia
 - Kym Watt
 - Lloyd Brown
 - Neil Shah
 - Sophoclis Alexopoulos
 - Tovah Dorsey-Pollard
 - Vanessa Cowan
 - Vanessa Pucciarelli
- **HRSA Representatives**
 - Jim Bowman
 - Marilyn Levi
- **SRTR Staff**
 - Jack Lake
 - Katie Audette
 - Ryo Hirose
 - Tim Weaver
- **UNOS Staff**
 - Betsy Gans
 - Cole Fox
 - Erin Schnellinger
 - James Alcorn
 - Joel Newman
 - Kayla Balfour
 - Laura Schmitt
 - Meghan McDermott
 - Niyati Upadhyay
 - Susan Tlusty
- **Other**
 - Emily Perito (Chair of the OPTN Pediatric Transplantation Committee)
 - S. DeLair
 - Samantha Taylor