

OPTN Liver and Intestinal Transplantation Committee
OPTN Improving the Model for End- Stage Liver Disease (MELD) Calculation Work Group
Meeting Summary
April 7, 2021
Conference Call

James Trotter, MD, Chair

Introduction

The OPTN Improving the MELD Calculation Work Group (the Work Group) met via Citrix GoToMeeting teleconference on 04/07/2021 to discuss the following agenda items:

1. Project Scope and Plan
2. Progress to Date and Items for Further Discussion

The following is a summary of the Work Group's discussions.

1. Project Scope and Plan

The goal of this project is to develop an improved MELD that eliminates sex-based disparity and more accurately predicts 90- day waitlist mortality for liver transplant candidates with a focus on women. During this meeting, Work Group members were asked to consider the primary measure of success of the proposed changes.

Summary of discussion:

A member recommended the Work Group look at female waitlist mortality as their primary measure of success because it aligns with the goal of the project. Another member agreed with waitlist mortality and added that success could be measured on a long-term basis by overall transplant rate. A member stated that they favored transplant rate as the primary measure of success because if the overall transplant rate increases, it is likely that mortality rate will decrease. A liaison from the Scientific Registry of Transplant recipients (SRTR) noted that although transplant rate and mortality rate seem like they would correlate, this is not always the case. They continued that the Work Group would be able to request modeling for a variety of variables and consider their correlation. The majority of members agreed that waitlist mortality should be the primary measure of success of the proposed changes.

Next steps:

The Work Group will provide their consensus opinion to the full liver committee at their upcoming meeting.

2. Progress to Date and Items for Further Discussion

The Work group discussed methods for decreasing the sex- based disparity in MELD.

Summary of discussion:

The Work Group discussed size- matching and allocation. During the last meeting, the Work Group discussed an idea to offer organs that not been accepted for pediatric candidates to adult candidates under 166cm first in an attempt to get more small adults transplanted. This idea is currently out of

scope for this project, but could be addressed as part of future allocation changes such as continuous distribution. A member noted their support for this idea.

The Work Group focused on height versus sex versus correcting for creatinine when considering a new MELD. A member suggested that of the three, height had the least to do with differences between males and females and that sex and creatinine would be more accurate variable. Another member voiced that adding points to the MELD score for women would remedy some issues, but not those pertaining to small women. This member supported using MELD 3.0 as a first step and suggested addressing height as a separate issue at another time. A member asked how well MELD 3.0 predicts 90-day mortality for women. A member responded that this model shows improvement in prediction of 90-day mortality, especially for women. A member mentioned that utilization of MELD 3.0 has the potential to disadvantage adolescent men with low muscle mass. Another member agreed and noted that adolescent candidates should be accounted for in the modeling.

The Work Group discussed modeling options. A member reviewed the MELD models and voiced support for including gender by using the MELD 3.0 model. Another member agreed and commented that if the Work Group were to derive its own MELD model, it would likely be very similar to MELD 3.0. The Work Group took a straw poll on which model to select. The majority of Work Group members agreed to recommend the MELD 3.0 model for modeling by the SRTR.

Next steps:

The Work Group will bring their MELD 3.0 recommendation to the full liver committee for additional feedback

Upcoming Meetings

- May 21, 2021

Attendance

- **Work Group Members**
 - Pete Abt
 - Sumeet Asrani
 - Julie Heimbach
 - Evelyn Hsu
 - James Markmann
 - Greg McKenna
 - James Pomposelli
 - Jorge Reyes
 - James Trotter
- **HRSA Representatives**
 - Jim Bowman
 - Marilyn Levi
- **SRTR Staff**
 - Chris Folken
 - Ryutaro Hirose
 - Simon Horslen
 - Ray Kim
 - Ajay Israni
 - John Lake
 - David Schladt
 - Tim Weaver
 - Andrew Wey
- **UNOS Staff**
 - Matt Cafarella
 - Samantha Noreen
 - Kelley Poff
 - Matt Prentice
 - Niyati Upadhyay
 - Leah Slife
- **Other Attendees**
 - Emily Perito