OPTN Lung Transplantation Committee Meeting Summary March 17, 2021 Conference Call

Erika Lease, MD, Chair Marie Budev, DO, Vice Chair

Introduction

The Lung Transplantation Committee (the Committee) met via Citrix GoTo teleconference on 03/17/2021 to discuss the following agenda items:

- 1. Updating Mortality Models Subcommittee Report
- 2. LAS Refit Report PCO₂ by Ventilation Interaction

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

1. Updating Mortality Models Subcommittee Report

The Chair presented an update on the Updating Mortality Models Subcommittee's project noting that the full Committee will finalize this work before it goes out for public comment during the Summer 2022 cycle. The purpose of the project is to update and clarify the data fields that are currently collected on WaitlistSM and collect new data that may identify trends in waitlist mortality and post-transplant survival. The Chair reviewed all of the proposed changes with the full Committee and asked for member feedback.

Summary of discussion:

A member asked if the Subcommittee discussed oxygen requirements and how that is captured and defined. The Chair explained that there are revisions to the data field to allow for programs to add requirements at all three options (at rest, with exercise, and with sleep) as well as the mode of oxygen delivery. The Chair added that there was extensive discussion on this field and ultimately wanted to keep the categories specific, but vague enough to allow for new devices that may be developed. A member felt there may still be circumstances with the proposed changes that patients are not getting the benefit that is reflective of their illness, but the Chair clarified that the first step of this project is to collect the data so that patients on different devices or modalities of oxygen delivery can be differentiated.

The Committee was asked for feedback on whether or not there need to be adjustments to the liter upper limit for O₂, which is currently 26.33, since current devices can deliver much more than that. The Chair noted that any new upper limit should still be reasonable to avoid a mistype resulting in a score that is clearly not right while also making sure the limit is not limiting to current and new technology. A member felt that FiO2 more appropriately reflects a patient's O₂ needs, but the Chair added the Subcommittee struggled with that since there are not direct ways to convert O₂ liters to FiO2. The member stated that there may be an opportunity to collect both liters and FiO2 when high flow devices are being used. The Chair reiterated that this is an opportunity to collect data and revise the collection based on the information that is initially gathered as part of this project.

Next Steps:

The Committee was asked to review the mockup and provide any feedback they may have. The Committee will work on finalizing the proposal in upcoming meetings with a vote to send the proposal to public comment scheduled for May 2022.

2. LAS Refit Report - PCO₂ by Ventilation Interaction

SRTR staff presented their report on the LAS Refit – PCO2 by Ventilation Interaction for the Committee's consideration regarding a difference in how the OPTN and SRTR set values for oxygen and six-minute-walk and those potential impacts on candidates' lung allocation scores (LAS). When this was first presented to the Committee, they asked if there is an additional interaction between PCO₂ and ventilation, after accounting for the O₂ ventilation interaction. The results showed that the PCO₂ by ventilation interaction variables are not significant and the other model coefficients change very little.

Summary of discussion:

SRTR staff asked for clarification on whether or not the Committee had made a decision on how to handle the different practices between SRTR and the OPTN regarding the set values for oxygen and sixminute-walk. The Chair remembered the Committee being okay with leaving things the way the OPTN was handling it. A member noted that when looking at the results, the OPTN process LAS by O_2 levels made sense clinically since a patient being vented or not is reflective of how sick the patient is. SRTR staff clarified that patients who have an LAS of 70+ is in the 90th percentile for perspective. They also understood that clinically the community thinks that someone on a ventilator on 22 liters of oxygen is sicker than someone who is not ventilated on the same amount of oxygen, but felt that the reality is the patient is on the extreme end of the curve. SRTR staff expressed some concern over the candidates in the middle range where there is a large jump between candidates who are on and who are not on ventilators. A member asked if extracorporeal membrane oxygenation (ECMO) is added as mechanical ventilation and members clarified that ECMO is entered as mechanical ventilation at 100 percent oxygen. SRTR staff asked if the Committee has concerns over candidates in the middle range who are not on a ventilator being underrepresented. Members felt that being on a ventilator is carries a certain amount of risk and that should be considered. Members also noted that candidates who may have a lower risk of waitlist mortality because they are not ventilated may have a better post-transplant survival which would be equally weighted in continuous distribution. The Committee supported the continued use of the OPTN's set values for oxygen and six-minute-walk without the O_2 interaction and will look at trends post-implementation of continuous distribution.

Upcoming Meetings

- April 21, 2022
- May 13, 2022

Attendance

- Committee Members
 - o Erika Lease, Chair
 - o Marie Budev, Vice Chair
 - o John Reynolds
 - o Julia Klesney-Tait
 - o Whitney Brown
 - o Errol Bush
 - o Cynthia Gries
 - o Denny Lyu
 - o Nirmal Sharma
 - o Marc Schecter
 - o Dan McCarthy
 - o Jasleen Kukreja
 - o Scott Scheinin
 - Kelly Willenberg
 - o Pablo Sanchez
- HRSA Representatives
 - o Jim Bowman
- SRTR Staff
 - o Katie Audette
 - o David Schladt
 - o Maryam Valapour
- UNOS Staff
 - o Elizabeth Miller
 - o Krissy Laurie
 - o Sara Rose Wells
 - o Holly Sobczak
 - o Tatenda Mupfudze
- Other Attendees
 - o Matt Hartwig