

OPTN Lung Transplantation Committee

Meeting Summary

October 15, 2020

Conference Call

Erika Lease, MD, Chair

Marie Budev, DO, Vice Chair

Introduction

The Lung Transplantation Committee met via Citrix GoTo teleconference on 10/15/2020 to discuss the following agenda items:

1. Community Analytical Hierarchy Process (AHP) Results

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

1. Community Analytical Hierarchy Process (AHP) Results

UNOS staff presented an overview of the results of the AHP exercise released to the transplant community during public comment (August 4 – October 1, 2020). The Committee will use these results to inform development of the continuous distribution of lungs allocation system.

Summary of discussion:

Participation

Nearly 200 people participated in the community AHP exercise. Of these participants:

- 44% were transplant hospital professionals
- 31% were patients
- 9% were organ procurement organization (OPO) professionals
- 7% were other transplant, medical, or research professionals
- 5% identified as "general public/other"
- 4% were histocompatibility laboratory professionals

Of the 57 patients who participated:

- 67% were transplant recipients or recipient family members
- 17% were transplant candidates or candidate family members
- 8% were living donors
- 8% were donor family members

Overall Results

There was some variation in how the different demographic groups ranked the six attributes included in the exercise, which were medical urgency, post-transplant survival, candidate biology, pediatric age, prior living donor, and placement efficiency. OPO professionals prioritized prior living donors and placement efficiency more than other groups, which generally ranked these attributes as the lowest priorities. OPO professionals also ranked candidate biology as the lowest priority, whereas most groups ranked candidate biology in the middle. The relative weighting of candidate biology and placement efficiency by OPO professionals may reflect concerns about sending samples across the country for

cross-matching. OPO professionals ranked the prior living donor attribute the highest, which may reflect their experience with kidney transplantation, since OPTN policy gives priority to prior living donors in kidney allocation. Other demographic groups tended to rank pediatric age and post-transplant survival near the top, and medical urgency tended to fall in the middle with candidate biology.

A member asked UNOS staff if they have information on the geographic distribution of the participants. UNOS staff said that the results are not geographically balanced. Many of the patients who participated are based in the D.C. area, since one of the committee members in that region encouraged several patients to participate. Most of the demographic groups are too small to break down by geography, but UNOS staff did not observe any trends in the responses based on geographic location. An attendee asked if UNOS would consider another round of AHP to gather broader feedback. UNOS staff noted that public comment for the policy proposal will serve as another opportunity to get community feedback. For AHP, it is more important to have informed participation than a very large sample size. UNOS staff will be reaching out to people who registered but did not complete the exercise, and will be pursuing efforts to improve participation for this process in the future. The results of the AHP exercise will also be posted on the OPTN website.

Comparing Medical Urgency vs. Post-Transplant Survival

The current lung allocation system places a 2/3 weight (~67%) on medical urgency and a 1/3 weight (~33%) on post-transplant survival in the lung allocation score (LAS) calculation. In the AHP results, the balance between medical urgency and post-transplant survival varied across demographic groups. All groups weighted post-transplant survival more highly than the current allocation system (lowest weight was 44%), and several groups weighted these attributes about equally (around 50% each). In contrast, the Committee weighted medical urgency around 75% versus 25% for post-transplant survival.

An attendee said that respondents may have been thinking about longer-term post-transplant survival when participating in the exercise, rather than one-year post-transplant survival, which is what will be included on the composite allocation score. The attendee said that this approach moves away from the concept of transplant benefit, in that LAS was intended to represent transplant benefit minus waiting list survival. The attendee said that it may be true that transplant benefit is largely comprised of waiting list mortality (medical urgency) but the Committee should keep this in mind. UNOS staff agreed and said it is important for the Committee to read the comments in the report to understand the intent behind the scores, particularly those related to post-transplant survival. The attendee noted that participants were not required to submit comments so all views may not be represented.

HRSA staff said there is a lot of interest in both quality of life measures and predicting post-transplant survival longer than one year, so it might be interesting in the future to offer a similar AHP exercise that incorporates these attributes. UNOS staff said such measures could be considered the next time that the continuous distribution framework is updated for lungs. An attendee said that it is hard to model and predict quality of life with the data currently collected by the OPTN.

Gap Analysis between AHP and Current Policy

The relative weights of the attributes varied between current policy (as estimated by revealed preference analysis), the Lung Committee's AHP results, and the community AHP results. In upcoming meetings, the Committee will focus their conversations on areas of divergence between these three reports. Current policy places a much higher weight on placement efficiency (81% compared to 9% and 10% for the Committee and the community AHP results, respectively), whereas the AHP results place a much higher weight on candidate age (26% for the Committee and 22% for the community compared to 4% in policy).

Preparing for Upcoming Lung Committee Meetings

UNOS staff asked the Committee to read through the community AHP report – especially the comments – to understand why someone may believe that one attribute is more important than another attribute. UNOS staff also asked members to compare their individual responses to the community results to reflect upon the differences and the rationale for their own views. The goal will be to explore and understand all different perspectives. At times, UNOS staff may ask members to explain the benefits of the alternative point of view and the weaknesses of their preferred perspective. The goal is not unanimity, but rather to come to consensus on a set of scenarios for SRTR to model.

UNOS staff shared an example of a chart from the report, showing how each demographic group voted on a pairwise comparison. The Committee will talk through why someone would have made the choices that they did, and will discuss the comments from the AHP report in conjunction with the feedback received during public comment. UNOS staff shared a summary of public comment themes, noting that there was general support for the proposal and compliments on the Lung Committee’s work to date.

UNOS staff provided an overview of the Tableau sensitivity tool designed to help the Committee explore how different changes to the composite allocation score would impact candidate rankings on the match run. The tool allows users to vary attribute weights and modify rating scales. The default weights in the tool reflect the Committee’s AHP results. UNOS staff asked the Committee to look at the tool to see how the Committee’s results impact the match run. UNOS staff also asked members to plug in their individual AHP results to see how that changes candidate rankings. The tool provides multiple ways to visualize the changes to candidate rankings. The tool also allows users to compare two candidates to see how changing different candidate traits would impact the candidate’s composite allocation score.

An attendee noted that the tool includes data for one pediatric donor and thought it would be important to see data for both a donor under the age of 12 and a donor between the ages of 12 to 17. UNOS staff said there are not many attributes that will change based on donor characteristics. In current policy, there are two sequences for allocation, one based on adult donors and one based on pediatric donors. Lungs from donors under the age of 12 are not treated differently from lungs from donors between the ages of 12 to 17. The attendee said that the height of the donor also plays a role. UNOS staff noted that the rating scale for height does not involve height matching, so that rating scale does not involve a donor-candidate interaction. The attendee said that if the goal of the height rating scale is to weight patients based on the fraction of donors that would be suitable based on height, it would be helpful to see variability there, since height is hopefully a surrogate for giving appropriate priority to younger candidates. UNOS staff said that the three match runs were strategically curated to provide a range of donors over the height spectrum and should be able to provide those insights. The donor will not affect the candidate points on the height rating scale since height matching was not used.

A member asked if the rating scale for Calculated Panel Reactive Antibodies (CPRA) reflects a calculated CPRA, or if it is based on antigens listed in UNetSM as antigens to avoid. UNOS staff said the rating scale would reflect a calculated CPRA. The member said that people can have a very high CPRA but the titers are low enough that transplant programs will do a transplant anyway. UNOS staff said the OPTN Histocompatibility Committee provided some feedback on this and the Lung Committee will need to have a discussion about this later on, but the Histocompatibility Committee understands that lung transplant programs will have more risk tolerance in terms of cross-matching relative to other organs.

Next steps:

The Committee will discuss the pairwise comparisons in more detail during their meetings on 10/21/2020 and 10/23/2020. The goal is to finalize the weights for each attribute in the composite allocation score by the end of the meeting on 10/23 to submit a request to SRTR for modeling. UNOS

staff asked that members ensure that they can log in to Decision Lens since they will be taking the AHP exercise again on 10/23.

Upcoming Meetings

- October 21, 2020
- October 23, 2020

Attendance

- **Committee Members**
 - Erika Lease, Committee Chair
 - Marie Budev, Committee Vice Chair
 - Alan Betensley
 - Whitney Brown
 - Ryan Davies
 - Julia Klesney-Tait
 - Jasleen Kukreja
 - Dennis Lyu
 - Dan McCarthy
 - Kenneth McCurry
 - John Reynolds
 - Kelley Willenberg
- **HRSA Representatives**
 - Jim Bowman
- **SRTR Staff**
 - Yoon Son Ahn
 - Katie Audette
 - Melissa Skeans
 - Andrew Wey
- **UNOS Staff**
 - James Alcorn
 - Julia Chipko
 - Craig Connors
 - Elizabeth Miller
 - Amanda Robinson
 - Janis Rosenberg
 - Leah Slife
 - Darren Stewart
 - Kaitlin Swanner
 - Susan Tlusty
 - Sara Rose Wells
 - Karen Williams
- **Other Attendees**
 - Jarrod Dalton
 - Matthew Hartwig
 - Masina Scavuzzo
 - Jennifer Schiller
 - Stuart Sweet