OPTN Ad Hoc Multi-Organ Transplantation Committee
Lung Multi-Organ Workgroup
Meeting Summary
March 25, 2025
Conference Call

Marie Budev, DO, MPH, Chair
Lisa Stocks, RN, MSN, FNP, Chair

Introduction

The OPTN Lung Multi-Organ Workgroup (the Workgroup) met via WebEx teleconference on 03/25/2025 to discuss the following agenda items:

1. Welcome and agenda
2. Review lung Composite Allocation Score (CAS) thresholds for pediatric donor groups
3. Data request: Donor heart availability for lung classifications in the MOT allocation tables
4. Next steps

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

1. Welcome and agenda

The Workgroup reviewed the agenda, the potential lung composite allocation score (CAS) thresholds, and the group's workplan for March-April 2025.

Summary of presentation:

The preliminary lung CAS thresholds are:

Blood type O donors:

- High CAS threshold: 35
- Low CAS threshold: 34

Blood type A, B, AB donors:

- High CAS threshold: 31
- Low CAS threshold: 30

At this meeting, the Workgroup will review thresholds for pediatric donors and results from the data request regarding donor heart availability for lung classifications in the MOT allocation tables. At the next meeting, the Workgroup will review public comment feedback on the lung CAS thresholds and finalize recommendations to the MOT Committee.

Summary of discussion:

The Workgroup did not make any decisions.

There was no discussion.

2. Review lung Composite Allocation Score (CAS) thresholds for pediatric donor groups

The Workgroup reviewed the lung CAS thresholds for three pediatric donor groups:

- Donation after brain death (DBD) donors age 11-17 years old with Kidney Donor Profile Index (KDPI) of 0-34%
- DBD donors age less than 11 years old with KDPI of 0-34%
- DBD donors age less than 11 years old with KDPI of 35-85%

Data summary:

DBD donors age 11-17 with KDPI of 0-34%

The recommended thresholds cover approximately 13-14% of the match run for DBD donors age 11-17 with KDPI of 0-34%. For blood type O donors, a median of 58 candidates (14%) would be captured by the CAS thresholds and for blood type A, B, and AB donors, a median of 11 (13%) would be captured by the CAS thresholds. The data shows that lungs would generally be accepted above the proposed thresholds. The thresholds capture a mean of approximately 26-34% of lung-multi-organ candidates. The data for this donor group is similar to the data for adult donor groups the Workgroup previously reviewed.

For blood type O donors, at a threshold of 35 compared to 34, there are more match runs where candidates in the "last above" and "first below" position have > 1 medical urgency points. For blood type A, B, and AB donors, at a threshold of 31 compared to 30, there are more match runs where candidates in the "last above" and "first below" position have > 1 medical urgency points. This shows that the upper thresholds are capturing more medically urgent candidates and the lower thresholds are capturing slightly less medically urgent candidates.

The Workgroup reviewed the proposed allocation table for adult DBD donors age 11-17 with KDPI of 0-34%, noting the placement of the higher and lower CAS thresholds.

DBD donors age less than 11 years old with KDPI of 0-34%

The study period included 34 donors with these characteristics for which a lung match was submitted:

- Blood type O: 15
- Blood type A: 13
- Blood type B: 6

A total of 7 lungs were accepted from these donors and the sequence number of final acceptance ranged from 1-17. Analysis of candidate medical urgency was not provided due to the small number of donors and small number of adults appearing on the match runs.

For blood type O donors, a median of 8 candidates (38%) would be captured by the CAS thresholds. For blood type A, B, and AB candidates, a median of 4 (66%) would be captured by the high CAS threshold and a median of 0 captured by the lower CAS threshold. Most of the candidates above the thresholds were pediatric candidates. The data indicates that very few lung multi-organ candidates would appear on these match runs, but lung alone candidates would be captured by the lung CAS thresholds.

The Workgroup reviewed the proposed allocation table for DBD donors age <11 with KDPI of 0-34%, noting the placement of the higher and lower CAS thresholds.

DBD donors age <11 with KDPI of 35-85%

The study period included 62 donors with these characteristics for which a lung match was submitted:

- Blood type O: 30
- Blood type A: 20
- Blood type B: 12

A total of 2 lungs were accepted from these donors and the sequence number of final acceptance ranged from 1-2. Only 1 lung multi-organ candidate appeared on a match for these donors. The proposed lung CAS thresholds often covered the whole match for this donor group. Analysis of candidate medical urgency was not provided due to the small number of donors and small number of adults appearing on the match runs.

For blood type O donors, a median of 2 candidates (100%) would be captured by the high CAS threshold. For blood type A, B, and AB candidates, a median of 1 candidate (100%) would be captured by the high CAS threshold.

The Workgroup reviewed the proposed allocation table for DBD donors age <11 with KDPI of 35-85%, noting the placement of the higher and lower CAS thresholds.

Summary of Discussion:

Decision #1: The Workgroup supported the following lung CAS thresholds for all three pediatric donor groups:

- **Blood type O donors: high threshold of 35, low threshold of 34**
- **Non-O donors: high threshold of 31, low threshold of 30**

The Workgroup had no further questions or comments and supported the proposed lung CAS thresholds.

3. Data request: Donor heart availability for lung classifications in the MOT allocation tables

The Workgroup reviewed results of the data request, which analyzes the percentage of donors that would have hearts still available when OPOs switch to the lung match run based on the multi-organ allocation tables.

Summary of presentation:

The data request covered all donors whose heart and lungs were transplanted between 9/28/23 – 12/31/24. It analyzed the number and proportion of donors that donated organs to heart-lung recipients and identified whether hearts were accepted from the heart or lung matches, stratified by donor type, donor OPTN Region, and donor blood type.

During the study period, 2,357 donors had their hearts and lungs accepted and transplanted. Most of those donors (59.5%) were DBD adult donors with KDPI of 0-34%, followed by DBD adult donors with KDPI of 35-85% (24.4%). The other donor groups accounted for between 0.1% - 7.6% of heart-lung recipients.

Overall, 3% of heart and lung donors resulted in heart-lung transplants, with a total of 74 heart-lung transplants. Donors for heart-lung transplants came from all OPTN Regions, though there was variation in the number of heart-lung donors between Regions.

The data shows that 30% of adult heart and lung donors would have both their heart and lungs available when OPOs switch to making offers from the lung match. More often hearts would remain available for offers from the lung match from donation after circulatory death (DCD) and higher KDPI donors. For pediatric donors, 27% of heart and lung donors would have both their heart and lungs available when OPOs switch to making offers from the lung match. The majority of these would be DBD age 11-17 donors with KDPI 0-34%.

The Workgroup reviewed location of heart acceptance by donor region and donor blood type, noting variation by OPTN region. Organs from blood type O donors are more likely to be accepted higher on the heart match, meaning there will be a smaller proportion of O donors with hearts and lungs available for allocation on the lung match.

Summary of Discussion:

Decision #2: The Workgroup requested additional data on the distribution of lung medical urgency for heart-lung candidates.

A member questioned whether very sick lung patients should receive higher priority within the allocation tables. Members discussed different options for prioritizing very sick lung patients. One option would be to add an additional CAS threshold based on medical urgency. Another option would be to develop an exception pathway for heart-lung candidates, which would assign those candidates Heart Status 2. Members tended to prefer the exception pathway because these cases would be very rare. The Chair noted that this work was beyond scope of the current MOT Committee project and that the OPTN Lung Committee should work with the OPTN Heart Committee to develop the exception pathway.

A member requested data on the distribution of medical urgency within CAS thresholds, stratified by region and blood type.

Next steps:

The Workgroup will consider data at the next meeting on the distribution of lung medical urgency scores for heart-lung candidates, stratified by region and blood type.

Upcoming Meeting

- April 8, 2025

Attendance

- Workgroup Members
    - Marie Budev
    - PJ Geraghty
    - Shelley Hall
    - Matthew Hartwig
    - Erika Lease
    - Jackie Russe
    - Zoe Stewart Lewis
- SRTR Staff
    - Jon Miller
- UNOS Staff
    - Chelsea Hawkins
    - Houlder Hudgins
    - Sara Langham
    - Kaitlin Swanner
    - Sarah Roache
    - Ross Walton